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Indonesian Customary Court Concept in the Future

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Abstract

This paper initiated the concept of indigenous Indonesian judicial ideal future, oriented to three models of customary courts: first, indigenous justice is independent; second, justice custom in general court; and third, the general court justice for indigenous case with accommodating indigenous values. The selection of the three alternative models in indigenous justice initiated the concept of the ideal future is a choice of how the political dynamics of the existence of the law for justice indigenous ways of looking at one side with the formal law on the other. Clearly, if the customary court will be chosen level with formal law (national law) that is independent; is part of the formal law (national law) entered the room so that the general court, or custom values so as to be accommodated in the national law higher than the customary law as dynamic as it is today.

Keywords: customary court, Indonesian juridical, national law

1. Introduction

Examined from the perspective of legislation in Indonesia today, customary legal terminology is known as the "law of life in society," "living law," "legal values and sense of justice that live in the community," "the unwritten law,""customary law,""native Indonesian law," and so forth. In addition, customary law and its indigenous communities have a strong correlation, integral and inseparable even commonly expressed in some proverbs. For example, suppose the Acehnese people known by the phrase " *matee anek mepat custom meshes matee Tamita phat* " is defined when a child dies tomb, can still be seen; however, if the custom is removed/dead, it will be difficult to find. Other expressions, such as " murip i kanung Edet, mate i kanung earth," which means that it must follow the same rules with the customary necessity when the dead shall go into the belly of the earth.

Existence of customary law other than the enactment of national legal instruments known in the instrument set also as international. The provisions of Article 15 paragraph (2), the International Covenant on Civil and Political Rights (ICCPR) states that "Nothing in this article shall prejudice the trial and punishment of any person for any act or omission; at the time when it was committed, was criminal According to the general principles of law-recognized companies by the community of nations." Then, the recommendation of the Congress of the United Nations (UN) on "The Prevention of Crime and the Treatment of Offenders" stated that the criminal justice system have existed in some countries (especially those from/imported from a foreign law during the colonial period); the general are "obsolete and unjust" (already outdated and unfair) and "outmoded and unreal" (already out of date and not in accordance with reality). The reason is because the legal systems in some countries are not rooted in cultural values, and there is even a "discrepancy" with the aspirations of the people, and the system is not responsive to the social needs of the present. These conditions by the UN Congress is expressed as a factor contributing to the occurrence of crime.

The scope and dimension of customary law have very broad context; the instrument is set in law, both national and international instruments. In addition, the studied substance of customary law dimension can be divided into the customary civil law, customary constitutional law, criminal law customary (delichtentrecht) and so forth. Customary criminal law terminology, customs offenses, violations of customary law, or common law criminal forerunner to actually derived from customary law. When examined from the perspective of the source, the criminal law/civil customary has written and unwritten sources. Clearly, it can be a source of unwritten customs that arise, followed and adhered to continuously and down for generations by the indigenous peoples concerned. For example, written sources can be seen in the Book Ciwasasana or Purwadhigama during King Dharmawangsa of the 10th century, the Book of Gajah Mada, Simbur Book Light in Palembang, Book Kuntara King Niti in

Lampung, Book Lontara "ade" in South Sulawesi, Adi Book of Religion, Book Manawa Dharma Sastra, Awig-Awig in Bali, and all the regulations as written on a manuscript, leather, or other materials.

2. Discussion

2.1 Customary Law between "There" and "No"

Over time, the change is highly complex and dynamic; making of regulatory legislation as partial legislative policy turns out to be an existence of criminal law/criminal justice, and their indigenous customs can be said to be between "no" and "no." There are six arguments put forward in this context.

First, it examined the formal dimension of the principle of legality and the principle of legality material. Basically, the principle of legality with the terminology commonly called "principle of legality," "legaliteitbeginsel," "non-retroactivity," "de lalegalite," or "ex post facto laws." Provisions of the legality principle in Article 1 paragraph (1) of the Criminal Code determines: "Nothing can be convicted of an event other than the power of the criminal law provisions that preceded it. "When paired, formal and material legality principle should be stipulated in legislation and implemented integrally. On the basis of the principle of legality of an action, a convicted law existed before it was committed. Then, the legality principle that the basic material is liable should an act is legal to live in a society is not a written law or customary law.

Barda Nawawi Arief mentions the existence of formal formulation of the principle of legality in Article 1 of the Criminal Code, common law, or the law of life in the community did not have a place as a source of positive law. In other words, the existence of Article 1 of the Criminal Code is often "put to sleep or turned off." During colonial times, the criminal law is not written lull; it still may be because it is in accordance with the Dutch law policy at the time. However, the other will be felt when the policy was also continued after independence. With Section 1 of the Criminal Code, the unwritten law/legal life was never fully excavated and revealed the surface, especially in the practice of criminal justice as well as in academic studies in college. Furthermore, means never develop properly "jurisprudential tradition" or "traditional academic/scholarly" about the criminal law is not written it. If it does exist, it does only in a very limited space and" is not complete."

Basic conclusion from what is described in the above-mentioned principle of legality as the provisions of Article 1 of the Criminal Code, it is one of the fundamental principles that must be maintained but should use it wisely and carefully because if less wise and less careful, it can be "boomerang." It is tragic and disheartening when the pretext of Article 1 of the Criminal Code, the values of the existing law and living in the community, cannot be channelled properly or even rejected altogether. It says that the tragic and heart-rending as mean values of customary law/laws that live in the community have been killed/turned off by his own people through weapons/bullet/knife obtained from the former colonial power (i.e., through Section 1 of the Criminal Code/WvS).

Second, examined from the perspective of Act No. 1 of 1951, which darts Customary Court began its existence is not recognized and eliminated that continues after Basic Law on Judicial Power codification (Act No. 14 of 1970), which is then converted by Law No. 35 of 1999, in conjunction with Law No. 4 of 2004, Act No. 48 of 2009) no longer recognized the existence of customary courts. The provisions of Article 1 (2) 1drt Act of 1951stated that, "At the time, will gradually abolished determined by the Minister of Justice...all Customary Courts except if the religious courts of justice according to law that life is a separate part of the Indigenous justice."Then, the article is an authentic explanation stating the basis for consideration of elimination of indigenous customary justice because justice does not qualify as a court equipment as requested by the Provisional Constitution and undesirable people. However, in the abolition of customary justice in the above context, the fact does not eliminate the type of justice that is customary in other forms of village justice. Aspects and dimensions of the starting point as the provisions of Article 1 (3) 1 drt Act of 1951, which asserted that "The provisions mentioned in subsection (1) is not the slightest power to reduce the rights had been given to the judges of the peace in villages referred to in article 3a Rechterlijke Organisatie. "Basic conclusion on the above context, implicit and explicit determine which abolished customary justice-based emergency law is customary justice in the sense of inheemscherechtspraak, while authorities of customary justice carried out by the heads of the unity of indigenous communities where village justice continues. Whereas before, in the days of the Dutch East Indies, customary court is recognized in two forms: justice or justice indigenous peoples and village courts. This dimension then continued to be recognized in the days of the Japanese occupation where customary justice takes place, although Act No. 14 of 1942 (amended by Act No. 34 of1942), has simplified the system of justice where judicial differences Gubernemen and justice for indigenous people have been eliminated. Sudikno Mertokusumo mention that in Sumatra, customary justice shall remain valid and maintained pursuant to Article1of the law and Court Rules Judge contained in Otsu Tomi-Seirei-No. 40 dated December 1, 1943.

Third, studied from a juridical perspective, theoretical, sociological, and philosophical implicit and explicit existence of customary courts must be recognized. The aspects and dimensions of the starting point to the provisions of Article 18B Paragraph (2), Article 28 paragraph (3), and Article 24 paragraph (3) Constitution of Republic of Indonesia, 1945, Decree No. IX/MPR/2001, Act No. 17 of 2007 and Decree of the President No. 7 of 2005. Conclusions basis of these provisions essentially regulated, recognized, and respected the existence of the unity of indigenous peoples and their traditional rights. Then, lack of respect for cultural identity, cultural diversity, and the rights of the nation as part of human rights are in tune with the times and civilizations. Next, recognize the existence of justice agencies as part of the judicial power set out in the legislation. In addition, the dimensions of the provisions examined from the perspective of juridical, political, and constitutional means the law recognizes traditional rights of indigenous society unity in customary law. Philosophical perspective, lack of respect, recognition and existence of human values and human rights by the state, and the right to carry out justice, which must then be translated into judicial power law. In the sociological perspective, indigenous justice as part of the traditional rights of indigenous and tribal people's unity in fact still lives in the community. Sociological fact, it is relatively not getting the recognition, and the existence of the traditional rights of indigenous and tribal people's unity should be followed up by the state laws and national legislation. Logical consequence of this dimension means the recognition of traditional rights of indigenous people in the Constitution of the Republic of Indonesia in 1945; the existence of customary judicial imperative is also recognized in law. In reality, it turns out until now that there has been no legislation that applies nationwide to provide recognition of the existence of customary justice.

Fourth, the policy level is that local legislation still recognized the existence of indigenous justice. At present, it is recognized customary justice in Constitution No. 21 in 2001 on Special Autonomy for Papua and Aceh Nanggroe Darussalam for the area as Constitution No. 11 in 2006 on Aceh Governance existence Indigenous Court still applied and is known as the Village Customary Court or Court of Peace. The provisions of Article 50 paragraph (1) states that "The judicial power in Papua fees implemented by the Courts in accordance with the legislation," the next paragraph (2) reads, "In addition to the judicial authorities referred to in paragraph(1), recognized the existence of customary law in the particular customary law communities." Then, in Article 9, paragraph (3) of the Special Province of Papua No. 20 of 2008 on the Papuan Customary Court stated that "the administration of court administered by judges customary law."

Fifth, however, national policy does not recognize the existence of indigenous justice and actual facts factual jurisprudence policies applied by the Supreme Court to admit the existence of customary justice remained. For example, as one example, the Supreme Court Decision No. 1644 dated May 15, 1991, K/Pid/1988 where the ratio decidendi ruling stated that if someone is violating customary law and the then head of Indigenous Leaders react customary (customary sanctions/indigenous medicine), then the question cannot be asked anymore (for the second time) as a defendant in the trial of the State Courts (District Court) with the same charges and customs unlawful imprisonment imposed under the provisions of the Criminal Code (Article 5 paragraph (3) sub b drt Act No. 1 of 1951) that in such circumstances, the transfer of the case file as well as the demands of Attorney in the District Court must be declared unacceptable. Conclusion basis of the jurisprudence of the Supreme Court determines that the Supreme Court as the High Courts in Indonesia continue to respect the decision of the Head of Indigenous (Indigenous leaders) who provide "customary sanctions/indigenous medicine" against violators of norms of customary law. General Courts cannot justify or prosecute offenders for the second time; these customs necessitate imprisonment (ex Article 5 paragraph (3) sub b darts of Law No. 1 of 1951, the articles of the Criminal Code). Therefore, it can be said that the logical consequence, if the traditional leader never gives "sanctions customary/indigenous medicine" against violators of customary law, the judicial magistrate judge states full authority under the provisions of Article 5, paragraph (3) sub b of Law No. 1 of darts 1951 articles of the Criminal Code.

Sixth, studied from the perspective of the future customary justice in reality is still around the level of the concept of the Draft Law (Draft) prepared by the Regional Representative Council (DPD) and the House of Representatives (DPR). Protection of Indigenous Peoples on the bill drafted by the Regional Representative Council in 2009 in Article 7 is set on Indigenous Institute, while the provisions of Article8 are set on Indigenous Justice. The provisions of Article 8 state the following: (1) Courts are part of the indigenous customary institutions; (2) customary courts have jurisdiction to try all cases that occur are committed by members of indigenous peoples and indigenous territory concerned; (3) the decision of the customary court referred to in paragraph(2) shall be binding and final.; and (5) in the event, a case occurs in a region of an indigenous custom where one party is not a member of the indigenous peoples concerned, the settlement is done through the judiciary in accordance with the legislation in force.

Then, the bill on the Recognition and Protection of Indigenous People who prepared the DPR in 2012 in Chapter III Paragraph 5 of the Right To Run Indigenous Law and Justice Article 18 paragraph (1) states that society has the right to hold the customary law of indigenous justice system in resolving disputes associated with customary rights and customary law and violation of paragraph, (2) states that further regulation of the right to exercise customary law and justice referred to in paragraph (1) is regulated by the government. The concept of the Bill on Protection of Indigenous Peoples and the DPD proposed Bill on the Recognition and Protection of the Rights of Customary Peoples filed by the House of Representatives will essentially remain a high honor existence to the enactment of customary law for the Indonesian people.

2.2 Initiating the Concept of Customary Indonesian Judicial Ideal in the Future

2.2.1 Customary Law Is Independent Law

The concept of an independent judiciary is not a customary necessity. Examined from the perspective of juridical, philosophical, sociological, and theoretical aspects and dimensions of the starting point to the provisions of Article 18B Paragraph (2), Article 28 paragraph (3), and Article 24 paragraph, and (3) the Constitution of the Republic of Indonesia, 1945, Decree No. IX/MPR/2001, Act No. 17 of 2007 and Presidential Decree No. 7 of 2005. Conclusions basis of these provisions essentially regulated, recognized, and respected the existence of the unity of indigenous people and their traditional rights. Then, lack of respect for cultural identity, cultural diversity, and the rights of the nation as part of human rights is in tune with the times and civilizations. Next, recognize the existence of justice agencies as part of judicial power set out in the legislation.

In addition, the dimensions of the provisions examined from the perspective of juridical , political constitutionally legal means recognizing the traditional rights of customary and tribal people's unity in *casu* customary law . Philosophical perspective, lack of respect, recognition, and existence of human values and human rights by the state, as well as in terms of implementing the right of justice, which must then be translated into Indonesian politics of judicial power law. In a sociological perspective, customary law as part of the traditional rights of indigenous and tribal people's unity in fact still lives in a society where it turns sociological facts relative to political recognition in the law of judicial power. In a theoretical perspective, lack of respect, recognition, and existence of the unity of the traditional rights of indigenous and tribal peoples should be followed up by the state legislation. The logical consequence of this dimension means the recognition of traditional rights of indigenous people in the Constitution of Republic of Indonesia in 1945, should the existence of indigenous justice imperatives are also recognized in law. However, in reality, it turns out that until now, no law applies nationally to recognize the existence of customary law.

From a historical perspective, customary law actually never acknowledged its existence. There are two forms customary law in the days of the Dutch East Indies. First is indigenous justice. Justice is carried out by the European justice and judges also from Indonesia, not on behalf of the King and Queen, not based on European legal system, but the system of customary law stipulated the resident with approval of the Director of Justice at Batavia. The existence of this court under the provisions of Article 74 of the RR/Article 130 IS decisive, "where the natives are not allowed to have their own justice, administered justice throughout Indonesia on behalf of the King. Where the population has left the judiciary alone, there is genuine justice. Second is the justice village. Justice is carried out by the judge or judges. Indigenous village is good for environmental justice *Gubernemen*, judicial indigenous/customary justice, and judicial self-government outside Java and Madura, the authority to hear matters little which is indigenous affairs and village affairs. The village has long been the true court that prevailed in the society in the rural life, and it acknowledged the new Dutch government since 1945, Article 3a RO with Stb 1935 No. 102.

During the Japanese occupation, customary law took place and continued to be recognized, although the Act No. 14 of 1942 (amended by Act No. 34 of 1942) has simplified the system of justice where judicial differences *Gubernemen* and justice for indigenous people has been eliminated. *Sudikno Mertokusumo* mention that in Sumatra, firm customary law shall remain valid and be maintained pursuant to Article 1 of the law and Court Rules Judge contained in *Otsu Tomi-Seirei*-No. 40 dated December 1, 1943.

In the next period, the era drt Act 1 of 1951, the existence of customary court began to be not recognized and thus removed. The provisions of Article 1 (2) 1drt Act of 1951 states that "At the time gradually will be determined by the Minister of Justice was abolished...all customary courts except if the religious courts of justice according to law that life is a separate part of the Indigenous justice." Then, the article mentions an authentic explanation of the basis for consideration of the abolition of customary courts that do not qualify for the equipment as requested by the court and the Provisional Constitution of undesirable people.

However, the abolition of customary law in the context of the above, not essentially eliminate the type of justice that is customary in other forms of village justice. Aspects and dimensions of the starting point as the provisions of Article 1 (3) 1drt Act of 1951, which asserted that "The provisions mentioned in subsection (1) is not the slightest power to reduce the rights had been given to the judges of the peace in villages referred to in article 3a Rechterlijke Organisatie." Basic conclusion on the above context, implicitly and explicitly determines which abolished customary law-based emergency law is customary justice in the sense inheemsche rechtspraak, whereas the customary judicial authority carried by the community unit heads of customary law is village justice continues. Emergency law is customary justice in the sense inheemsche rechtspraak, whereas the customary judicial authority carried by the community unit heads of customary law is village justice continues.

Later, the long journey through the judicial authority law (Act No. 19 of 1964, Act No. 14 of 1970, Act No. 35 of 1999, Act No. 4 of 2004, and Act No. 48 of 2009), does not recognize the existence of customary law. In the law courts determined as the only state judiciary in Indonesia, so the customary law clearly does not recognize its existence.

At present, it is recognized a customary law in Law No. 21 of 2001 on Special Autonomy for Papua and Aceh Nanggroe Darussalam for the area as Law No. 11 Year 2006 on Aceh Governance existence Customary Court still applied and is known as the Village Customary Court or Court of Peace. The provisions of Article 50 paragraph (1) states that "The judicial power in Papua fees implemented by the Courts in accordance with the laws and regulations", then paragraph (2) reads, "In addition to the judicial authorities referred to in paragraph (1), and recognized the existence of customary law in the particular customary law communities." Then, in Article 9, paragraph (3) of the Special Province of Papua No. 20 of 2008 on the Papuan Customary Court stated that, "the administration of justice administered by judges indigenous customary." Then, Article 51 of Law No. 21 of 2001 more mentions the following: (1) The customary courts is courts of peace in the customary law community, which has the authority to examine and adjudicate disputes customary law and criminal cases among the residents of indigenous communities concerned; (2) the Courts the customary of the customary law ordered by the indigenous peoples concerned; (3) the customary courts examine and adjudicate civil disputes and criminal cases custom referred to in paragraph (1) based on customary laws of indigenous communities concerned; (4) in the event that one of the parties to the dispute or the litigants objecting to the decision that has been taken by the customary court referred pad check paragraph; (3), the objecting party has the right to ask the court of first instance in the courts, the authority to examine and re-adjudicate disputes or matters in question; (5) the customary court is not authorized to impose a sentence of imprisonment or confinement; (6) customary court decision concerning a criminal offense that his case was not sought re-examination as referred to in paragraph (4), be final and binding judgment; (7) to release the criminal offender from criminal prosecution under the provisions of criminal law, necessary for the consent of the Chairman of the District Court held that obtained through the Chief State Prosecutor is concerned with a criminal incident as described in paragraph (3); and (8) in the event that a request for consent to be implemented in the custom court decision referred to in paragraph (7).

The essence of the above dimensions fundamental customary law recognized that the scope is local, but in the national side, it is relatively less customary court recognition. In addition, the dimensions of saying that there is no connection between the politics of law in the legislation (Article 18 BParagraph (2), Article 28 paragraph (3) and Article 24 paragraph (3) Constitution of Republic of Indonesia 1945), which should be further elaborated by regulations legislation, but the reality has not yet been translated further by the state.

Examined from the perspective of the future customary law in reality is still around the level of the concept of the Draft Law (Draft) prepared by the Regional Representative Council (DPD) and the House of Representatives (DPR). Protection of living on the bill drafted by the DPD in 2009 in Article7is set on Indigenous Institute, whereas the provisions of Article 8 are set on Customary Court.

In the detailed provisions of Article 7 reads: (1) customary institutions have the authority to regulate, administer, and prosecute members of indigenous peoples; (2) in performing its duties customs agency has the authority to represent members of indigenous communities both collectively and as individuals in any legal actions and legal events that occurred; (3) procedures, structures, and working procedures of traditional institutions in accordance with customary structures prevailing in the respective indigenous peoples. The provision of Article 8 reads:
(1) the customary courts are part of the traditional institutions; (2) customary courts have jurisdiction to try all cases that occur are committed by members of indigenous peoples and indigenous territory concerned; (3) the decision of the customary court referred to in paragraph (2) shall be binding and final; and (4) in the event a case occurs in a region of an indigenous custom where one party is not a member of the indigenous peoples concerned, the settlement is done through the judiciary in accordance with the legislation in force.

Then, the bill on the Recognition and Protection of Indigenous People who prepared the DPR in 2012 in Chapter III Paragraph 5 of the Right To Run Customary Law and Justice Article 18 states that: (1) the public has the right to hold the customary law of custom law system in resolving disputes relating to customary rights and a violation of customary law and (2) further regulations regarding the right to exercise justice and customary law as referred in paragraph (1) is regulated by the government.

The concept of the Bill on Protection of Indigenous Peoples and the DPD proposed Bill on the Recognition and Protection of the Rights of Indigenous Peoples filed by the House of Representatives will essentially remain high honor existence to the enactment of indigenous justice for the Indonesian people. If the described context of indigenous justice initiated an ideal model is independent of this it can be seen in the Figure1 below form.
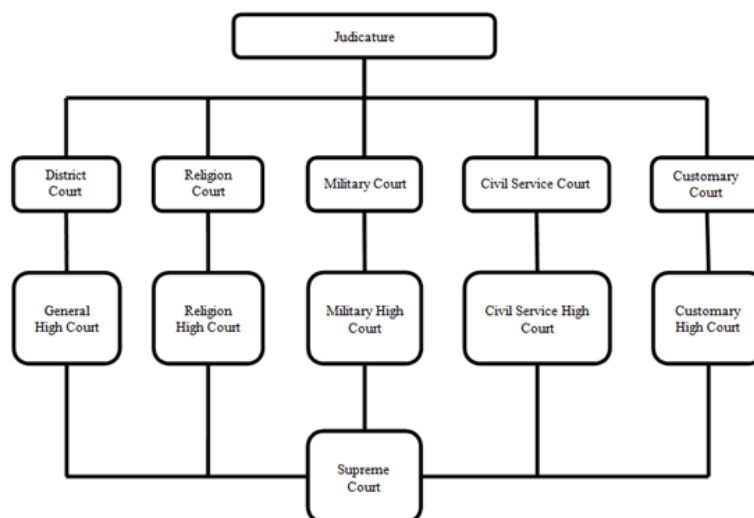
Figure 1. The concept of independent custom court

In essence, the establishment of Customary Courts is independent of this nature who wants more seats the position of customary law, traditional institutions and customary laws functionaries sociological, philosophical, theoretical, and normative parallel (same level) with the national legal system. Precisely, indigenous customary law in parallel with the formal legal *caqu* into the institution of judicial power. In practice, local knowledge of customary law in a criminal case is mostly done outside the criminal justice system of customary courts resolved. In an international perspective, this dimension is also in line with the provisions of Article 5 of the Declaration on the Rights of Indigenous Peoples, which was passed on September 7, 2007 to determine that, " Indigenous peoples have the right to maintain and strengthen political institutions, legal, economic, social and cultural, while retaining their right to participate fully if they choose, in the political, economic, social, and cultural rights of the State". Next, in Section 34 is also determined, " indigenous peoples have the right to promote, develop, and maintain institutional structures and customs, spirituality and traditions, procedures, practices they are different, and in case if there are, their judicial systems or customs, in accordance with the standard - international human rights standards.".

However, although such an ideal concept formation is independent Indigenous Justice does not mean do not have weaknesses, constraints and implications and raises questions that are correlated with the implementation of the legal basis and authority of Indigenous Justice, the principle or principles of Customary Courts, Customary Court functionaries, process or mechanism Justice indigenous and indigenous Justice finally for the administration. Examined from the perspective of normative, theoretical emperies and the existence of customary law institutions raises questions and some doubts. Thus elaborated further dimension as reflected in the views SiclairDinnen following: (a) the fact that most of the indigenous justice held by those who are old, in which a framework of thinking of them often do not see the development of conditions in the community, especially the younger generation. This affects the decision made as to discriminate against women and children (especially in patrilineal societies); (b) the notion that in any customary judicial culture of nepotism and corruption-prone; (c) the strength of the force of customary judicial decisions often questionable; (d) principles and objectives of the judicial punishment of opposing the existing formal system so that the impact of the decisions made was very

different (in this case I do not see what the impact is a positive or negative impact); and (e) that the customary justice institutions will only be effective and binding in traditional societies homogeny but would be very different if applied within the scope of urban area.

Regardless, of the existence of weaknesses, constraints, questions and excess dimension in the context of the above, the selection or creation of Customary Courts are essentially independent of a choice of how the political dynamics of the existence of the law fore Justice Indigenous ways of looking at one side with the formal law on the other.

2.2.2 Customary Courts in the General Court

In this context, indigenous justice included in the general court room. Nature of customary justice here is "quasi" or "collaborative approach". That is, in the general court, there will be two (2) rooms, the District Court room and Customary Court Room. Special to the Customary Court of General Jurisdiction of this room, the judge who will hear the case is a mixture of indigenous Justice with Judge Ad Hoc career. However, the Ad Hoc difference here is not permanent as it is known as today, but temporary. Strictly speaking, the Ad Hoc Judge will hear all the existing custom cases and when it has finished with the customary court of the status of the Ad Hoc back to normal.

Customary justice are "quasi" or "collaborative approach" perceived effective , efficient and in accordance with the factual conditions of the times. In this model, then the remedies, there are two possible options that can be done. First, do an appeal to the High Court as the Court of Appeal of Indigenous Peoples. In Customary Court of Appeal also tried by Judge mixture career with the Ad Hoc. Similarly cassation to the Supreme Court, so the logical consequences of the court of appeal should exist also Cassation Indigenous Room . Other possibilities can also be judged on appeal by the Supreme Court in Criminal Room/Room Special Criminal and Civil/Special Civil cases depending on the type of entry. The logical consequence of this dimension; it is next necessary addition of knowledge, mastery of customary law, and the experience of the judge 's career at Court Room Traditional , Customary Court of Appeal and Supreme Court Justice in Criminal Room / Room Special Criminal and Civil / Civil Special .

If the dimensions are chosen so that the form of Customary Courts in General Court can be seen as Figure 2 below.
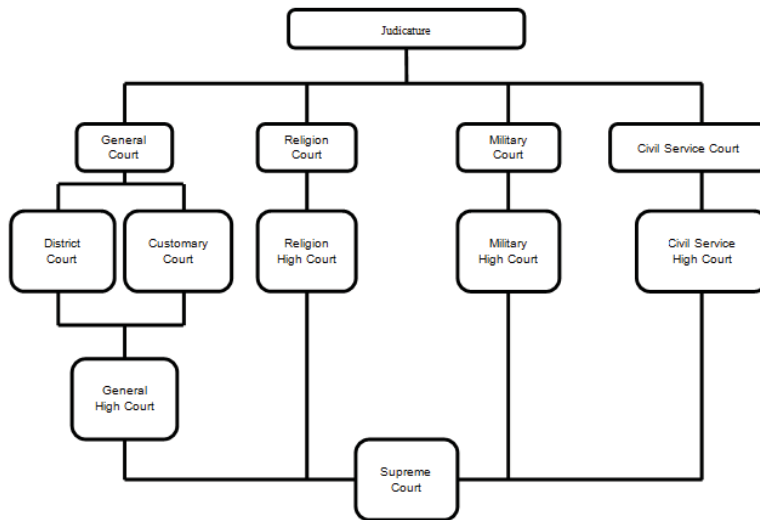
Figure 2. Customary courts in general court

Second, to make it more efficient, streamlined, effective, and with the perspective that the specific dimensions of indigenous cases; it can also open the possibility that the case should not be custom made an appeal, so it is not necessary to Customary Court of Appeal. Against indigenous cases both criminal cases and civil cases indigenous customs that have been decided by the Customary Court of General Jurisdiction In the room, his legal efforts can only be made legal efforts to appeal directly to the Supreme Court.

If the model is to be chosen in the form of Customary Court Room General Court can be seen as Figure3 below.
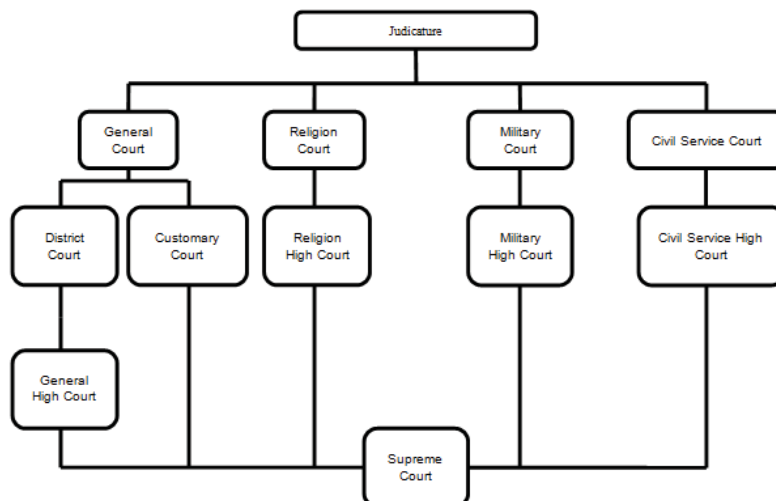
Figure 3. Customary court in general court without indigenous high court

In essence, traditional justice model selection in general court room as Charts 2 and 3, has advantages and disadvantages. In Figure 2, it is possible to do with an appeal to the High Court Custom and then glance over to accommodate the dimensions of human rights because of criminals or the plaintiff / defendant in civil case custom, still accommodated rights in all forms of justice. However, its shortcomings would means there to the facilities, infrastructure and financial dimensions of the state to form a Customary Court of Appeal. However, if the selected Chart 3 then briefly the limitations on legal remedies that can be done by the perpetrator or the plaintiff / defendant in a civil case custom, so will the dimension restrictions on human rights. Its advantages because the state can finance is not necessary facilities, infrastructure and human resources to build the High Court Peoples. In addition, the efforts of law directly to the Supreme Court, then put a custom case are a special case that interventions should be prioritized, specific, serious, and exclusive.

In addition to the above dimensions, the implications of Customary Courts In General Court, will result in the need for more in-depth thoughts on the types of cases that can be dealt with just about anything and is a jurisdiction of the District Court and Customary Court. In this context, it is necessary to have a deeper thought is needed so that the problem does not arise and adding new trial when the model has been run.

2.2.3 Passing the General Court Case with Accommodating Indigenous Traditional Values

In this model, the General Court Justice for Indigenous Case With Accommodating Indigenous Values is a general model that has been implemented as it is today in Indonesia. In addition to the cases that have been described and discussed above, the model is also done in some areas. For example, for most areas of West Sumatra is condensed in the field of civil law where the law is applied customary law regions of West Sumatra and Bali in particular for criminal law section.

From this dimension, it can be said that there is an intermingling of the provisions of national law with customary law. Precisely, the national procedural law to accommodate the values of customary law when the judge ruled. Aspects and dimensions is seen for example in the Decision No.21/Pid.B/2009/Pn. And Decision No. Srln. 22/Pid.B/2009/Pn. Srln as follows: Sorolangun Jambi District Court sentenced to Celitai and Eye Mountain Hero Member for three months and twenty days for violating Article 351 paragraph (1) of the Criminal Code and Article 170 of the Criminal Code. A cursory look nothing special in the decision, but it caused the existence of customary law in the midst of our positive law. It is suspected that the decision was linked to the completion of customary where his decision, the warring parties fined the customary form of fabric which is considered as a replacement rokhani loss. With one person dead reckoning counted 500 fabrics. Hero Member Group Celitai paid 1000 fabrics to Madjid, whereas the 500 cloth to Madjid pay Celitai group.

The dimensions of the decision are interesting because the case settled prior custom and ends through a court decision. In essence, the judge's decision was considered customary settlement that formed the basis for the convict. Similarly, in a civil case in which the judge ruled on the point of departure to the dimension of the local customary law. For example District Court No. Lubuk cone. 17/PDT/G/2009/PN.LB.BS dated June 21, 2010 the principal injunction as follows: (1) Declare Plaintiff ARPENDI Rangkayo NOBLE is Mother of Hereditary

Chief of the Tribe DT. SATI Bagindo Pasukuan Malay in Jorong Aurand Jorong Jalikur, Koto Kenagarian Tangah, Tilatang Kamang, Agam derived from the off spring that upik grandmother (deceased) Malay; (2) Declare Plaintiff ARPENDI Rangkayo RUNUN NOBLE with DT. Bagindo SATI, mamad DT. Bagindo SATI and Mahyudin DT. Bagindo SATI is sekaum, sepenghulu, serandji, seharta sepusaka, sehina semalu, segolok segadai dan sesasok sejurami; (3) Stating appointment Albar, SE., As The penghoeloe The DT. BAGINDO SATI Forces Malay in Jorong Aur and Jorong Jalikur, Koto Kenagarian Tangah, Tilatang Kamang Vilage, Agam derived from a common ancestor that upik grandmother (deceased) The Malays are legally valid; (4) To declare the entire Land of Object Case The Plaintiff was rightfully belongs.

Criminal Code Draft of 2012 to accommodate clear about the values that live in a society of law (customary law) and side by side with the procedural provisions of national law. The provisions of Article 2 of the Criminal Code Bill determines that (1) The provisions referred to in Article1paragraph (1) Without prejudice to the laws that live in a society that determines that a person should not be convicted even though such actions stipulated in laws and regulations; (2) The enactment of laws that live in the community as referred to in paragraph (1) to the extent consistent with the values contained in Pancasila, human rights, and the general principles of law recognized by the community of nations.

The Elucidation of Article 2 Paragraph (1) :Law is the law of life means living in community life of Indonesian law. The legal form of the legal community who live in Indonesia, such as in certain parts of Indonesia there are unwritten laws that live in the community and serves as the law in the area. Such things are also in the field of criminal law that is usually referred to by the customary criminal offenses. To provide a solid legal basis for the enactment of customary criminal law, then it gets the settings explicitly in the Code of Criminal. This paragraph is an exception to the principle that penal provisions stipulated in the legislation. Admittedly the customary criminal offense to better satisfy the justice that lives in a particular society. Paragraph (2) This paragraph contains guidelines or criteria or the guidelines in determining the source of the material law (law who live in the community) that can be used as a source of law (legality source material). The guidelines in this paragraph oriented values contained in Pancasila as a source of national law, human rights, the principles of the common law recognized by the community of nations.

3. Conclusion

Essentially, Indigenous Justice in Indonesia dimensions between "no" and "no". These dimensions can be seen from the principle of legality, the normative perspective drt Act 1 of 1951, the policy of block legislation and jurisprudence of the Supreme Court. In judicial practice of the State, many decision has been handed down by the judiciary against criminal cases and civil cases custom.

For the foreseeable future, in the Customary Court initiated an ideal concept oriented to three (3) models Customary Courts. First, Indigenous Justice is independent. Second, Justice Custom In General Court. Third, the General Court Justice for Indigenous Case with Accommodating Indigenous Values.

The selection of the three alternative models in Indigenous Justice initiated the concept of the ideal future is a choice of how the political dynamics of the existence of the law for Justice Indigenous ways of looking at one side with the formal law on the other. Strictly speaking, if the Customary Court will be chosen level with Formal Law (National Law) that is independent; is part of the Formal Law (National Law) entered the room so that the General Court, or custom values so as to be accommodated in the National Law National Law higher than Customary Law as dynamic as it is today.

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Organizational Citizenship Behavior and Bank Profitability: Examining Relationships in an Iranian Bank

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Abstract

Organizational citizenship behavior is an individual and voluntary behavior that is not designed directly by formal reward system. Nevertheless, it causes increase in effectiveness and efficiency of organizational performance. This study aims to evaluate and analyze relationship between organizational citizenship behavior and profitability of branches of Mellat Bank in Kerman Province in Iran. Sample consists of all employees of Mellat Bank branches in Kerman Province that work in 87 branches of Kerman Province. Records and documents of bank branches as well as a questionnaire were used for data collection. Results of Pearson correlation coefficient suggest that there is a significant relationship between citizenship behavior and profitability in branches of Mellat Bank in Kerman Province. Based on results from regression analysis, it was revealed that dimensions of civil participation and respect predict profitability of the bank branches positively and significantly.

Keywords: organizational citizenship behavior, Profitability, Mellat Bank

1. Introduction

Study of individuals' behaviors has long been paid attention by management scientists and by emergence of Organizational Behavior field in early 1960s more serious works have been done in this area. Many of the studies have tried to classify behaviors and their causes. Arguments like perception, motivation, job attitudes and so on are among areas examining root cause of many human behaviors in job environment, but arguments suggested in the last two decades organizational citizenship behavior, in addition to behavioral scientists, attracted attention of psychologists and sociologists. Organizational citizenship behavior is an arbitrary and extra-role behavior that increases efficient performance of organization and is not controlled by formal reward system of the organization directly or indirectly. Today, these behaviors are considered as inseparable element of performance management and have entered various organizational aspects (Kakhaki & Gholipoor, 2007; Jahanshahi et al., 2011c).

On one hand, banks and financial institutions facilitate commercial transactions and cause extension of markets and economic growth by directing and organizing receipts and payments. Although a considerable part of researches conducted examine financial performance of bank branches but it should be noted that a little attention has been paid to behaviors of workforce of these organizations including organizational citizenship behavior. According to literature, organizational citizenship behavior of employees improves their performance in the organization and in serving clients (Podsakoff et al., 2003). In order to achieve high efficiency and profitability, bank branches should formulate and implement strategies. To do this, they should have characteristics of organizational citizenship behavior such as sacrifice, dutifulness, respect, participation, loyalty and tolerability between employees (Zareie et al., 2006; Jahanshahi et al., 2010a). Thus, relationship between characteristics of organizational citizenship behavior and profitability rate in bank branches is an important issue that requires careful examination and scientific evaluation. Therefore, the essential question for which the

present study seeks to respond is whether there is a relationship between organizational citizenship behavior and profitability in bank branches.

2. Literature

2.1 Organizational Citizenship Behavior

The concept of organizational citizenship behavior was first presented to the science world by Organ and Batman in early 1980s. Early researches on organizational citizenship behavior were focused mostly on identification of responsibilities and behaviors employees had in organization but were often ignored. These behaviors, although measured inadequately in traditional evaluations of job performance or even sometimes ignored, were effective in improving organizational effectiveness (Bienstock, 2003; Jahanshahi et al., 2011a; Eizi et al., 2013). This issue is related to concepts such as 'tendency to cooperate' suggested by Chiste Barnard (1983) as well as distinction between 'reliable role performance' and 'inventive and spontaneous behaviors' suggested by Ketzokan. Other concepts related to extra-role performance that has high relevance to organizational citizenship behavior include socialist behaviors, spontaneous behaviors and contextual performance. But, among them, organizational citizenship behavior has gained higher acceptability and in the two last decades and especially in early 21st century, research on this topic has grown considerably. Numerous definitions have been presented for organizational citizenship behavior but one the most comprehensive definitions is the one presented by Organ in 1988. Organizational citizenship behavior is an individual and voluntary behavior that is not designed directly by formal reward system. Nevertheless, it causes increase in effectiveness and efficiency of performance of the organization. Organizational citizenship behavior is desirable for every organization since it is related to important organizational variables such as job satisfaction, system maintenance and organizational productivity. The results of previous studies show that managers can foster organizational citizenship behavior by improving work environment and, instead of using coercion and power, they can rely on social acceptance or selection or employment processes to create these behaviors. Evaluation of other organizational citizenship behavior refers to a series of arbitrary work place behaviors that are more than essential work conditions. They are often described as behaviors created beyond duties. The key essence in Organ's definition of organizational citizenship behavior is that such a behavior increases organizational effectiveness. Some of areas where organizational citizenship behavior helps organizational success can be summarized into the following aspects based on the studies:

1- Increase in productivity of management and employees.
2- Release of organizational resources which can be used for more productive objectives.
3- Reduction of need to allocate scarce resources to tasks that have merely maintaining function.
4- Assisting coordination activities both within and between work groups
5- Promoting ability of organizations to attract and retain efficient employees.
6- Increase of performance stability of organizations.
7- Enabling organizations for more effective compatibility to environmental changes (Moghimi, 2006).

Bolino and Torenly (2003) believe that citizenship behaviors have two general states: they cannot be reinforced directly, for instance, they do not need to be a technical part of individual's job. They result from special and extraordinary efforts organizations expect from employees for achieving success. Citizenship behavior is observed as a social resource through exchange of behaviors that receive social reward (Baharifar & Jawaheri Kamel, 2010; Jahanshahi et al., 2010b; Nawaser et al., 2014).

Bolino and Torenly (2003) introduced the following components as dimensions of organizational citizenship behavior:

-Loyalty
-Compliance
-Participation
-Courtesy
-Altruism
-Sportsmanship

In another research, Fareh et al. (1997) examined components of organizational citizenship behavior based on cultural conditions of China in terms of the following aspects:

-Social customs
-Altruism
-Job ethic

-Personal reciprocal coordination

-Protection of organizational resources.

Organizational citizenship behavior increases productivity of employees and work groups, communications, cooperation and helping between employees, encourages teamwork, reduces mistakes ratio, increases participation and involvement of employees in organizational issues and provides suitable organizational atmosphere (Jahanshahi et al., 2011a). Organizational citizenship behavior increases performance quality of employees by influencing intra-organizational factors such as organizational atmosphere, morale improvement, increase of organizational commitment, job satisfaction, reduction of turnover intents and reduction of absence and detrimental job behaviors and by influencing extra-organizational factors such as job satisfaction, service quality and customer loyalty (Castro et al., 2004).

According to Kohen and Vigoda (2000), some of the advantages of organizational citizenship behavior are:

-Improvement of productivity of management and employees

-More efficiency in consumption and allocation of resources

-Lowering maintenance costs

-Improvement of organization ability to employ high quality forces.

Regarding organization interests, citizenship behavior provides organization with a group of employees that are committed to the organization. According to Jain (1998), existence of organizational citizenship behavior (especially sacrifice, dutifulness and patience) reduces turnover and absence of employees, employees committed to the organization stay in the organization for longer period, offer high quality services and try to help company status by numerous and diverse approaches. So, these finally improve work environment in the organization (Gholam Hosseini et al., 2010; Khaksar et al., 2010; Nawaser et al., 2015; Sadeghi et al., 2013).

Therefore, given the above mentioned studies, it can be inferred that the most important of consequences of organizational citizenship behavior are:

-Increase of productivity

-Increase of effectiveness

-Improvement of employees performance

-Improvement of quality of services and products

-Reduction of absence and turnover

-Customers' loyalty

-Encouragement of teamwork.

2.2 Research Background

Zare (2004) concluded that in contrast to some researchers who believed that citizenship behavior increases effectiveness of the organization by 'greasing' social machine of the organization, indeed social capital is the 'greasing' that makes organizations work. Therefore, organizational citizenship behavior and social capital are not equally useful for performance of all organizations. Furthermore, in some places maintenance and development costs of social capital are higher than its advantages. In such cases, managers should evaluate potential positive and negative effects of social capital. Farhangi et al. (2006) are of the opinion that the higher the spirituality in work environment is, the more tendency the employees obtain to perform organizational citizenship behavior; consequently, tendency to perform such behaviors causes increase in quality of services delivered. Zareie (2006) in their investigation concluded that in successful and unsuccessful organizations, index of employee dutifulness has the highest average rank and index of sportsmanship (tolerability) has the lowest average rank. In these organizations, there is no significant difference in terms of human indices of citizenship behavior, that is indices of sacrifice, participation and attention, but there is a significant difference in terms of organizational indices like dutifulness, sportsmanship and loyalty. Kakhaky and Gholipoor (2007) examined relationship between organizational citizenship behavior as independent variable and service quality perception of customer, customer satisfaction, behavioral intents and customer loyalty as dependent variables. Findings of this study show that organizational citizenship behaviors have important effect on customers' perception of service quality, satisfaction, behavioral intents and loyalty. Karimi et al. (2007) opine that human resource activities have positive effects on organizational citizenship behaviors of employees. Among human resource activities, empowering, competence development, procedural justice and information sharing had the highest effect on organizational citizenship behavior. According to path analysis model, human resource activities can influence citizenship behavior through organizational commitment. Rezaeian and Rahimi (2008) in a study found that procedural justice influences organizational citizenship behavior through organizational commitment both directly and indirectly. This means that when employees perceive that employment processes are fair, their

trust in organization increases and most likely they exhibit more citizenship behaviors. The interesting result of this research was that older employees have more tendencies to exhibit citizenship behaviors than younger employees. The result of this study is consistent with Lowersen's findings that older employees are more committed to their jobs. Some dimensions of affective intelligence like "self-management" and "management of relations" have a positive and significant effect on organizational citizenship behavior through influencing affective commitment. Self-management aspect, including control of destructive emotions and tensions, exhibiting honesty, interdependency and loyalty, flexibility and compatibility to changes, accepting responsibility of individual performance, optimism and tendency to use opportunities, influence formation of affective commitment and thereby affects organizational citizenship behavior. In addition, management of relations dimension which includes reinforcing others' abilities by giving feedback, directing, motivating and persuading others, pioneering for change, resolving disagreements as well as tendency for group work and synergism, has had the most influence on increasing affective commitment and, consequently, on exhibition of organizational citizenship behaviors by employees. (Hadizadeh & Farajian 2008; Nawaser et al., 2014a; Vesal et al., 2013). Doayi (2009) examined direct effects of dimensions of organizational citizenship behavior on service quality in five-star "Pars Hotel" in Mashhad. Results of these investigation showed that none of the dimensions of organizational citizenship behavior of employees of Pars Hotel has had direct effects on quality of services delivered to customers of the hotel. Tong and Ibrahim (1998) evaluated consequences of organizational citizenship behavior in United States, Saudi Arabia and Egypt. Results showed that there is a direct and significant relationship between organizational citizenship behavior and internal and external consent, self-esteem and reduction of work stress. Bugler et al. (2004) believe that organizational citizenship behavior of employees was at medium level and had a direct relationship with empowering, job commitment and professional commitment. There is a significant relationship between four dimensions of organizational citizenship behavior, including altruism, job ethic, sportsmanship and social behavior, and empowering employees. Tong and Ibrahim (2004) evaluated consequences of organizational citizenship behavior in the United States, Saudi Arabia and Egypt using a sample of 155 persons in United States and a sample of 378 persons in Arabia and Egypt. Results showed that there is a direct and significant relationship between organizational citizenship behavior and internal and external consent, self-esteem and reduction of job stress. Kim (2006) by evaluating motivation of public services sector of Korea and organizational citizenship behavior suggests that altruism x=3.48 is higher than average level and has a direct and significant relationship with job satisfaction, affective commitment and general acceptance. In a study conducted by Nasir (2011) it was shown that there is a significant positive relationship between dimensions of organizational citizenship behavior, such as loyalty, compliance, civil participation and supportive participation, and duty performance. It was also found that only compliance and civil participation depend on duty performance. This investigation shows that sex and education modify relationship between organizational citizenship behavior and duty performance. These results provide important insight for understanding how employees become aware of their duty performance under influence of organizational citizenship behavior.

3. Conceptual Model and Research Hypotheses

Given the analytical principles and researches done as well as theoretical framework of research, analytical model of research can be presented as follows:

Based on this analytical model, research hypotheses can be derived and it can be investigated that, using the six dimensions of this model including participation, sacrifice, respect, loyalty, dutifulness and tolerability that introduce characteristics of organizational citizenship behaviors of individuals, whether there is a relationship between characteristics of citizenship behavior and profitability of bank branches.

Primary Hypothesis

- There is a significant relationship between organizational citizenship behavior and profitability of bank branches.

Secondary Hypotheses

- There is a significant relationship between civil participation dimension of organizational citizenship behavior and profitability of bank branches.

- There is a significant relationship between tolerability dimension of organizational citizenship behavior and profitability of bank branches.

- There is a significant relationship between dutifulness dimension of organizational citizenship behavior and profitability of bank branches.

- There is a significant relationship between sacrifice dimension of organizational citizenship behavior and profitability of bank branches.

- There is a significant relationship between respect dimension of organizational citizenship behavior and profitability of bank branches.

- There is a significant relationship between loyalty dimension of organizational citizenship behavior and profitability of bank branches.

Figure 1. Research conceptual model

4. Methodology

This research is of applied type in terms of purpose and has been performed in cross-sectional way since data of this research were collected by field work and using collected record and documents. Sample consists of all formal employees of branches of Mellat Bank in Kerman which consist of 87 branches throughout Kerman Province. Since confidence level in this research is considered 0.95 and if estimate precision is considered 0.09 and there is no estimate about success ratio, sample volume is determined by the following relation:

$$n = \frac{\left(z_{\frac{\alpha}{2}}^2\right) \times p(1-p)}{\varepsilon^2} = \frac{(1.96^2) \times 0.5 \times 0.5}{(0.09)^2} = 119$$

Since in most of researches it is probable that questionnaires will not be returned, in order to provide adequate sample and increase richness of the research, 140 questionnaires were distributed, of which 87 questionnaires were used for analysis.

In this research, a questionnaire for organizational citizenship behavior variable was used to collect data and records and documents of Mellat bank branches of Kerman Province were used to investigate bank profitability. Organizational citizenship behavior questionnaire is a researcher-made questionnaire and its dimensions were selected according to views of some scientists such as Padsakove, Organ, Smith, Nihof, etc and include 6 dimensions: 1) civil participation, 2) tolerability, 3) dutifulness, 4) sacrifice, 5) respect and 6) loyalty. This questionnaire has 23 items. Items 1 to 4 are related to civil participation, items 5 to 8 are related to tolerability,

items 9 to 12 are for dutifulness, items 13 to 16 relate to sacrifice, items 17 to 20 are related to respect and items 21 to 23 belong to loyalty. Items were designed with five options (completely agree, agree, no idea, disagree, completely disagree). Scores were assigned based on Likert spectrum scale from 1 to 5. For profitability variable, records and documents of branches of Mellat Bank in the Province were used. Profitability is practice, strategy and mechanism of obtaining profit. One of the strategies of obtaining profit in banks is to evaluate efficiency ratio. Efficiency ratio measures profit margin rate of units and this rate results from subtraction of effective rate of lending and effective rate of attracting deposit. The higher value of this rate reveals increase in efficiency and profitability of the bank. Product of this ratio in branches of Mellat Bank in Kerman is calculated and represented quantitatively by financial department of the bank at the end of fiscal year.

In order to ensure validity of information collection instrument, a questionnaire was formulated based on theoretical basis of research (i.e. organizational citizenship behavior) and was modified and revised after interviewing 5 university professors. Finally, a questionnaire with 23 items was prepared as a tool for collecting research information. Application of research theoretical principles and views of experts guarantees validity of questionnaire. In addition, a factor analysis was utilized to identify and eliminate invalid components. In this regard, after collecting questionnaires and calculating factor analysis using SPSS software, results have shown that this value was obtained for all components at 0.5 that again confirms validity of the questionnaires (Table 1).

Table 1. Factor analysis value for evaluation of validity of questionnaires components

Component	Factor analysis coefficient	Component	Factor analysis coefficient
Component 1	591.0	Component 13	739.0
Component 2	657.0	Component 14	583.0
Component 3	730.0	Component 15	736.0
Component 4	619.0	Component 16	691.0
Component 5	692.0	Component 17	786.0
Component 6	759.0	Component 18	847.0
Component 7	791.0	Component 19	584.0
Component 8	690.0	Component 20	681.0
Component 9	598.0	Component 21	663.0
Component 10	660.0	Component 22	680.0
Component 11	619.0	Component 23	781.0
Component 12	806.0		

In this research, Cronbach alpha coefficient was used to calculate reliability of the questionnaire. Estimation of Cronbach alpha shows the internal relation of items of the questionnaire. Indeed, when data collection relies on implementation of a single test, validity estimation is done through internal consistency of the items. The most general form of variance analysis of items is obtained through Cronbach alpha coefficient; variance of each item and covariance between items are calculated. Reliability of the whole questionnaire was obtained based on Cronbach alpha and was 0.941. The reliability of the questionnaire is confirmed as the mentioned values were all higher than 0.6.

5. Results

Data analysis was performed as follows. Factor analysis was done for evaluation of questionnaire validity, TOPSIS multi-criterion decision technique was used for ranking criteria of each dimension of citizenship behavior, Pearson correlation coefficient was used for evaluation of relationship between each dimension of citizenship behavior and profitability of bank branches and linear regression method was applied to examine predictive ability of each dimension of citizenship behavior for profitability of bank branches.

5.1 Demographic Characteristics

As mentioned earlier, the research questionnaire has two parts. The first part is related to demographic questions and the second part relates to the hypotheses presented. In this part, personal characteristics of subjects are assessed by evaluating questions of demographics such as sex, age, work experience and education.

Table 2. Demographic characteristics of sample in terms of sex

Characteristics	Type	Frequency	Percentage
Sex	Male	80	920.
	Female	7	080.
Total		87	100

Table 3. Demographic characteristics of sample in terms of age

Characteristics	Type	Frequency	Percentage
Age	20 to 30 years old	7	080.
	31 to 40 years old	50	570.
	41 to 50 years old	27	310.
	51 years old and above	3	040.
Total		87	%100

Table 4. Demographic characteristics of sample in terms of work experience

Characteristic	Type	Frequency	Percentage
Work Experience	1-5 years	2	023.0
	5-10 years	19	218.0
	10-15 years	19	218.0
	15-20 years	22	253.0
	20 years and above	25	287.0
Total		87	100

Table 5. Demographic characteristics of sample in terms of education

Characteristics	Type	Frequency	Percentage
Education	Below-diploma	2	023.0
	Diploma	49	563.0
	Associate Diploma	12	138.0
	Bachelor	18	207.0
	Graduate	6	069.0
Total		87	100

5.2 Quantitative Description of Variables

Values of mean, median, mode, standard deviation, skewness, elongation, minimum and maximum research indices are presented in two parts, citizenship behavior and profitability of bank branches, in Table 6.

Table 6. Value of descriptive indicators for model parameters

Variable	Dimensions	Mean	Median	Mode	SD	Skewness	Elongation	Min	Max
Citizenship Behavior	Civil Participation	14.4	25.4	25.4	62.0	624.-0	209.0	25.2	5
	Tolerability	241.4	25.4	5	689.0	642.-0	44.-0	5.2	5
	Dutifulness	212.4	5.4	75.4	711.0	467.-0	185.-1	75.2	5
	Sacrifice	261.4	25.4	5.3	584.0	191.-0	384.-1	25.3	5
	Courtesy	362.4	5.4	5	544.0	617.-0	342.-0	3	5
	Loyalty	383.4	667.4	5	696.0	893.-0	029.-0	33.2	5
Profitability		1.6710E9	2.1860E8	-5.28E10	9.06161E9	-1.610	15.940	-5.28E10	2.75E10

5.3 Hypothesis Testing

The primary hypothesis: there is a significant relationship between organizational citizenship behavior and profitability in branches of Mellat Bank in Kerman Province.

There is no significant relationship between organizational citizenship behavior and profitability $H_0: \rho = 0$.

There is a significant relationship between organizational citizenship behavior and profitability $H_1: \rho \neq 0$.

As mentioned before, Pearson correlation coefficient test was used to examine and analyze these hypotheses. Results from this test are presented in Table 7.

Table 7. Pearson correlation coefficient between citizenship behavior and performance

Pearson correlation coefficient	Significance	Number	Test result
0.750	0.000	87	Hypothesis Confirmed

There is a significant relationship between organizational citizenship behavior and profitability in Mellat Bank branches of Kerman Province. Given the output of the software, Pearson correlation coefficient between these two variables was 0.750. Significance value observed was 0.000 which is less than standard significance 0.05. Therefore, null hypothesis suggesting that there is no relationship between two variables is not confirmed at 95% confidence level. Since correlation coefficient between these two variables has a positive sign, it can be stated that there is a significant and direct relationship between organizational citizenship behavior and profitability of Mellat Bank branches in Kerman Province. This can be confirmed given the scatter Figure 2.
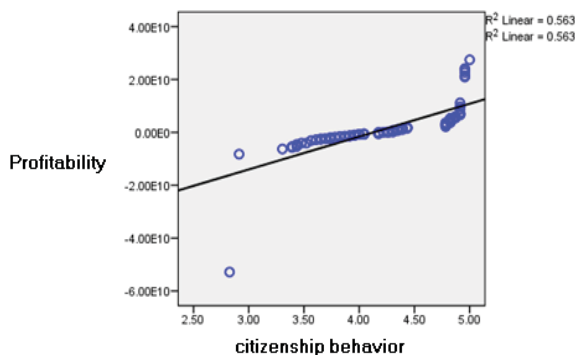
Figure 2. Scatter plot for citizenship behavior versus profitability of branches

At this point, it should be investigated which dimensions of citizenship behavior have significant relationships with profitability of bank branches. To do this, the following specific hypotheses were presented.

1- *There is a significant relationship between civil participation dimension of organizational citizenship behavior and profitability of bank branches.*

2- *There is a significant relationship between tolerability dimension of organizational citizenship behavior and profitability of bank branches.*

3- *There is a significant relationship between dutifulness dimension of organizational citizenship behavior and profitability of bank branches.*

4- *There is a significant relationship between sacrifice dimension of organizational citizenship behavior and profitability of bank branches.*

5- *There is a significant relationship between respect dimension of organizational citizenship behavior and profitability of bank branches.*

6- *There is a significant relationship between loyalty dimension of organizational citizenship behavior and profitability of bank branches.*
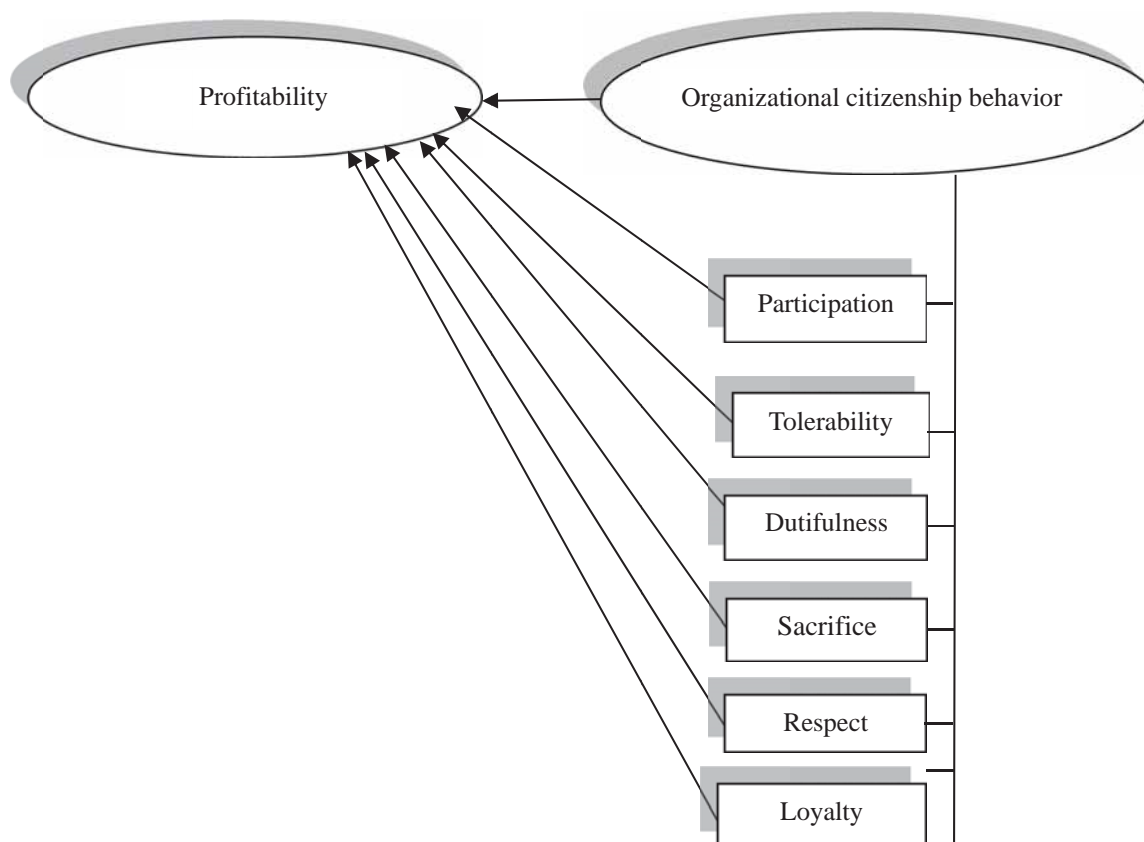
As mentioned before, Pearson correlation coefficient test was used to analyze these hypotheses. Results from this test are presented in Table 8.

Table 8. Pearson correlation coefficient between citizenship behavior dimensions and profitability

Dimensions of citizenship behavior	Correlation coefficient	Sample volume	Significance
Civil participation	720.0	87	000.0
Tolerability	663.0	87	000.0
Dutifulness	575.0	87	000.0
Sacrifice	601.0	87	000.0
Respect	671.0	87	000.0
Loyalty	626.0	87	000.0

There is a significant relationship between organizational citizenship behavior and profitability in Mellat Bank branches of Kerman Province. Given the output of the software, Pearson correlation coefficient between these two variables was 0.750. Significance value observed was 0.000 which is less than standard significance 0.05. Therefore, null hypothesis suggesting that there is no relationship between two variables is not confirmed at 95% confidence level. Since correlation coefficient between these two variables has positive sign, it can be stated that there is a significant and direct relationship between organizational citizenship behavior and profitability of Mellat Bank branches in Kerman Province. This can be confirmed given the scatter Figure 3.
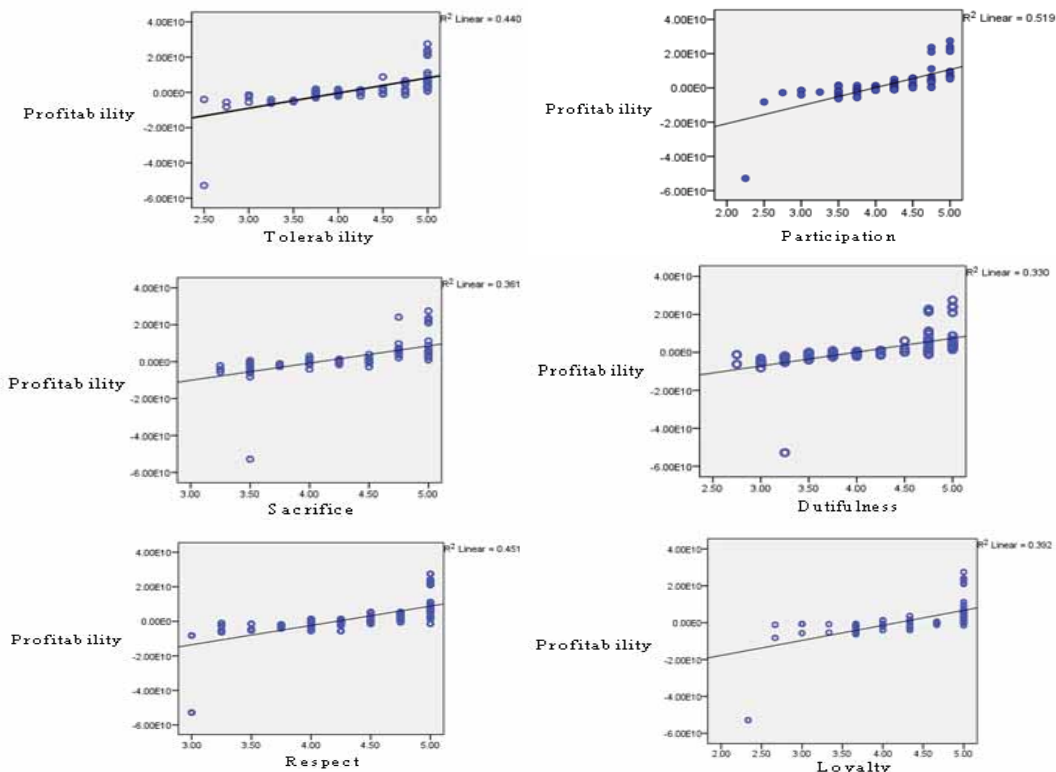
Figure 3. Scatter plot for dimensions of citizenship behavior and profitability of branches

Results in Table 8 suggest that all dimensions of citizenship behavior have direct and significant relationships with profitability of branches of Mellat Bank. In the following section, multivariate regression will be used to examine and predict profitability variable based on dimensions of citizenship behavior. In this analysis, we considered dimensions of citizenship behavior as independent variable and profitability as criterion variable. Variance analysis and regression analysis are presented in the following table.

Table 9. Variance analysis for evaluation of relationship between criterion variable and variables of citizenship behavior

	Model	Sum of square roots	Degree of freedom	Mean square roots	F	Sig
Model 1	Regression Effect	4.252E21	6	7.086E20		
	Residue	2.810E21	80	3.513E19	20.172	.000
	Total	7.062E21	86			

According to Table 9, significance value of variance analysis is less than 0.05 which suggests that regression model could explain variations in dependent variable. Next, contribution of each dimension of citizenship behavior to prediction of profitability will be presented.

Table 10. Regression results for effect of citizenship behavior on profitability of bank branches

	Variables	Non-standardized		Standardized	t	Sig	R	R^2	R^2(adj)
		B	Std. E	Beta					
A	Constant	-5.44E10	5.446E9		-9.992	.000			
x_1	Participation	5.401E9	1.928E9	.370	2.802	.006			
x_2	Tolerability	1.565E9	1.961E9	.121	.798	.427			
x_3	Courtesy	4.467E9	2.076E9	.268	2.151	.034	.776	.602	.572
x_4	Loyalty	1.467E9	1.601E9	.113	.917	.362			
x_5	Dutifulness	-7.937E8	1.760E9	-.062	-.451	.653			
x_6	Sacrifice	1.058E9	2.025E9	.068	.523	.603			

Given the results in Table 10, regression pattern was calculated and it was specified that civil participation and respect dimensions predict profitability performance of branches significantly and positively. In addition, according to value of the eighth column of the above table, R^2, it is shown that the developed pattern could justify more than 60 percent of variations in dependent variable (profitability performance) and the residue is contribution of other variables. Therefore, the regression model is as follows:

Profitability performance of branches $= -5.44E10 + 5.401E9x_1 + 4.467E9x_3$

5.4 Ranking Dimensions of Organizational Citizenship Behavior

Table 11. Ranking criteria of citizenship behavior using TOPSIS technique

		Factors	d_i^+	d_i^-	cli	Rank
A		I try to preserve popularity and reputation of my organization.	373.0	809.0	685.0	2
B	Participation	I am interested in active participation in organization meetings.	602.0	572.0	487.0	22
C		I adjust to organizational changes.	615.0	57.0	481.0	23
D		I take risk of stating my ideas.	503.0	675.0	573.0	16
E		I always consider mistakes and try to resolve them.	479.0	746.0	609.0	9
F		I don't exaggerate the reality.	533.0	712.0	572.0	17
G	Tolerability	I don't waste my time complaining about trivial issues.	568.0	639.0	529.0	20
H		I respect others' right in using common resources like organizational facilities.	508.0	683.0	574.0	15
I		I comply with organization's regulations even when no one monitors me.	495.0	725.0	594.0	12
J	Dutifulness	I try to complete my duties ahead of time and begin next task.	551.0	672.0	55.0	17
K		I don't use illegal and illicit techniques to influence and control clients.	62.0	644.0	509.0	21
L		I don't spend too much time for resting.	497.0	707.0	587.0	14
M		I help newcomers or employees with low skills.	487.0	72.0	596.0	11
N	Sacrifice	I allocate time willingly for helping my coworkers who have job problems.	401.0	788.0	663.0	5
O		I try to communicate with my coworkers and coordinate myself with them.	427.0	717.0	627.0	7
P		I am ready for voluntary help to others in abnormal conditions.	537.0	646.0	546.0	19
Q		I pay attention to effects of my behavior on my coworkers.	472.0	692.0	594.0	13
R	Courtesy	I consult others before doing a task.	426.0	736.0	634.0	6
S		I do not do any actions that hurt others.	355.0	836.0	702.0	1
T		I try to treat my coworkers and organization clients respectfully.	403.0	8.0	665.0	4
V		I am committed to my organization's goals and try to achieve them.	384.0	801.0	676.0	3
W	Loyalty	I feel I belong to my organization.	469.0	727.0	608.0	10
X		I am committed to my organization's mission.	466.0	774.0	624.0	8

Given the significant difference between criteria of dimensions of citizenship behavior, it was necessary for these criteria to be ranked according to their importance. So, multi-criterion decision techniques were used to rank these criteria. Multi-index decision methods have the advantage that they can evaluate various options based on diverse criteria that do not have the same units. It is an important advantage compared to traditional methods in which all criteria should be converted to an identical unit. Another important advantage of multi-index decision-making methods is that they can analyze qualitative and quantitative criteria simultaneously.

In these models, an option is selected from a number of available predetermined options. Multi-index decision-making helps decision-maker in evaluation, ranking and selection of options. In these problems, there are always limited and predetermined options and the decision-maker expects these options to be evaluated, ranked or selected based on decision indices. In this research, TOPSIS technique was used to rank criteria. TOPSIS model was suggested by Huang and Yon in 1981. This model is one of the best multi-index decision-making models and was used widely. In this method, m options are examined by n indices. This technique is based on the concept that the selected option should have the least distance to the ideal positive solution (the best possible state, A_i+) and the most distance to the ideal negative solution (the worst possible state, A_i-). It is assumed that acceptability of each index is increasing or decreasing uniformly. Results from this technique are given in the above table.

6. Conclusion

Study of citizenship behavior construct has continued widely since its introduction to research field and researchers have investigated its relationship with various concepts. In this research, relationship between citizenship behavior construct and profitability of banks was investigated using data obtained from employees of Mellat Bank in Kerman Province. Due to direct and positive effect of organizational citizenship behavior on organizational performance and consequently on profitability, paying attention to these behaviors can be a way of increasing effectiveness of organizations which has not been considered so far. In this study, absence of a particular background for evaluation of relationship between citizenship behavior and organizational performance resulted in formation of the present idea and process in the authors' mind. Accordingly, the authors felt lack of such an important role in Mellat Bank of Kerman Province and tried to present a certain model for this purpose. So, all employees of branches of Mellat Bank in Kerman Province were selected as target population. In this section, research findings are presented and analyzed and the most important findings will be discussed.

6.1 Hypothesis Testing

According to the results, the significant relationship between all dimensions of organizational citizenship behavior and profitability of branches of Mellat Bank in Kerman Province was confirmed. Zare (2004) showed that citizenship behavior is not useful for performance of all organizations. Hadizadeh and Farajian (2008) determined that some of dimensions of affective intelligence, such as "self-management" and "management of relationships", influence organizational citizenship behavior significantly and positively by influencing affective commitment. But, influence of other dimensions of affective intelligence, such as "self-awareness" and "social awareness", on citizenship behavior through affective commitment was not confirmed. Tong and Ibrahim (2004) showed that there is a significant relationship between organizational citizenship behavior and internal and external consent, self-esteem and reduction of job stress. Nasir (2011) showed that there is a significant and positive relationship between dimensions of organizational citizenship behavior such as loyalty, compliance, civil participation, supportive participation and duty participation and duty performance. He also found that only compliance and civil participation are dependent on duty performance.

Table 12. Results from hypothesis test for evaluation of relationship between organizational citizenship behavior and profitability.

	Hypothesis	Test result
Primary hypothesis	There is a significant relationship between organizational citizenship behavior and profitability.	Confirmed
Specific hypothesis 1	There is a significant relationship between civil participation dimension of organizational citizenship behavior and profitability.	Confirmed
Specific hypothesis 2	There is a significant relationship between tolerability dimension of organizational citizenship behavior and profitability.	Confirmed
Specific hypothesis 3	There is a significant relationship between dutifulness dimension of organizational citizenship behavior and profitability.	Confirmed
Specific hypothesis 4	There is a significant relationship between sacrifice dimension of organizational citizenship behavior and profitability.	Confirmed
Specific hypothesis 5	There is a significant relationship between courtesy dimension of organizational citizenship behavior and profitability.	Confirmed
Specific hypothesis 6	There is a significant relationship between loyalty dimension of organizational citizenship behavior and profitability.	Confirmed

6.2 Suggestions

- Given the significant and positive relationship between employees' performance and profitability of bank branches, it is recommended that, to improve and increase organizational citizenship behavior of employees, employees' trust to managers and organization should be increased through necessary measures.

- To improve organizational citizenship behavior of employees in organizations, managers should pay attention and the relevant concepts should be trained at expert level. So, training workshops for drawing attentions of organization members to citizenship behavior and specialized training for them is necessary.

- To improve citizenship behavior, organization's managers should try to develop and enrich job, make employees' duties meaningful and give them necessary feedbacks.

- Managers should update their information about novel and effective management techniques and have a realistic judgment about issues, problems and complaints of employees so that they can improve citizenship behavior and organizational performance of employees simultaneously.

- Managers should try to promote and improve life quality using such mechanisms as health planning, salary, welfare, workforce security and consulting services.

- Since one of the prominent indices of citizenship behavior is supportive participation, which includes presenting innovative suggestions and innovation for improvement of organizational and job procedures, suggestion system is necessary for improvement of citizenship behavior and organizational performance.

- This study was performed in branches of Mellat Bank in Kerman Province. It is recommended that such a research be done in other branches of Mellat bank in the whole country and results be compared with the present research.

- It is suggested that a comparative study be done on influence of citizenship behavior on profitability in public and private banks.

6.3 Research Limitations

Some problems, barriers, limitations and shortages in the implementation procedure of this research have drawn attention of the author which the most important ones are as follows:

- Some employees avoided completing questionnaires

- Lack of sufficient time for collection and analysis of data due to its large volume

- Lack of literature on evaluation of relationship between organizational citizenship behavior and bank profitability.

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Determining the Level of Environmental Sustainability Practices at Campus Dormitories Using Green Indicators

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Abstract

Environmental pollution and degradation at university campuses occurred due to various daily activities by the residents. The provision of support services in the residential and dormitory areas in the form of energy and materials consumption are growing into concerns nowadays. In this study, indicators of environmental sustainability were developed to identify the level of sustainability at dormitory areas. The indicators should be able to convey information easily without losing too much information or creating too much distortion. There are numerous aspects that need to be considered when discussing about environmental sustainability. In order to achieve the appropriate requirement for green dormitories, various references were used based from their practices locally and internationally. The indicators proposed for this study focused on four main environmental sustainable categories which are solid waste management, water resources management, green office practices and education and awareness. Each dormitory was evaluated using the proposed indicator based on the information provided by the dormitory representatives. The score for each indicator was summed up to determine the performance of each dormitory which reflected their sustainability achievement. With the help from the respondents who represented their dormitories, some points that may be the constraints of practicing the sustainability concepts are suggested. Some suggestions were made to improve the dormitories sustainability level. At the end of this study, all dormitories were ranked in the order of their performance based on the total marks obtained from the indicator calculations. From this study, it shows that KIZ scored the highest by 44 marks while KTHO the lowest with 4 marks. As a conclusion, there is a huge difference in sustainability practices between dormitories since there are different management approaches.

Keywords: indicators, dormitories, sustainability

1. Introduction

Introducing 'Green indicators' in this paper, it gives a brief definition on a study which indicates the level of green practices that contributed by each dormitory. There are four main aspects of environmental sustainability practices being examined in this study, which are solid waste management, water resources management, green office practices and education and awareness. The indicator will be a guideline to determine the level of environmental sustainability for a university campus that help in improving the sustainability of the dormitories. By using the indicator, all dormitories in UKM will be rated according to their performances and this will urge them to compete among themselves to achieve the highest ranking, thus at the same time, a more sustainable environment for a dormitory will be created.

The main objective of this study is to find an appropriate method that can be used to measure the level of sustainability for a campus dormitory. All dormitories will be evaluated equally based on their practices and the scores will be given according to their performances.

1.1 The Importance of an Indicator for Campus Sustainability

The purpose of establishing environmental sustainability indicators is to obtain the information on the current sustainable practices and thus to identify what sort of improvement initiatives required to be provided. Improving the basis for sound decision making, integrating many complex issues while providing simple signals

that a busy decision maker can understand, is a high priority. At a time when modern information technologies increase the flow of information for rapid assimilation while making it possible to explore issues further as needed and this is the goal for indicators (Bedrich & Arthur, 2007).

By taking the campus dormitory as the scope of study, the decision maker that is stated here are the dormitory administration committee members. By giving them a clear option to determine complex issues, a lot of problems can be solved easily at a faster rate. Sometimes, complex explanation of the indicator may confuse the decision makers, thus making them ignoring the issues altogether. When evaluated at regular intervals, an indicator can point out the direction of change across different units and through time (Remigijus et al., 2009). Thus, green indicators are information concern on sustainability, which may change over time.

2. Method

Figure 1 shows the overall methods used in this study. Started with preliminary study in the area of sustainability and its relations with dormitories. Research scopes, goals and objectives were finalized at this stage.
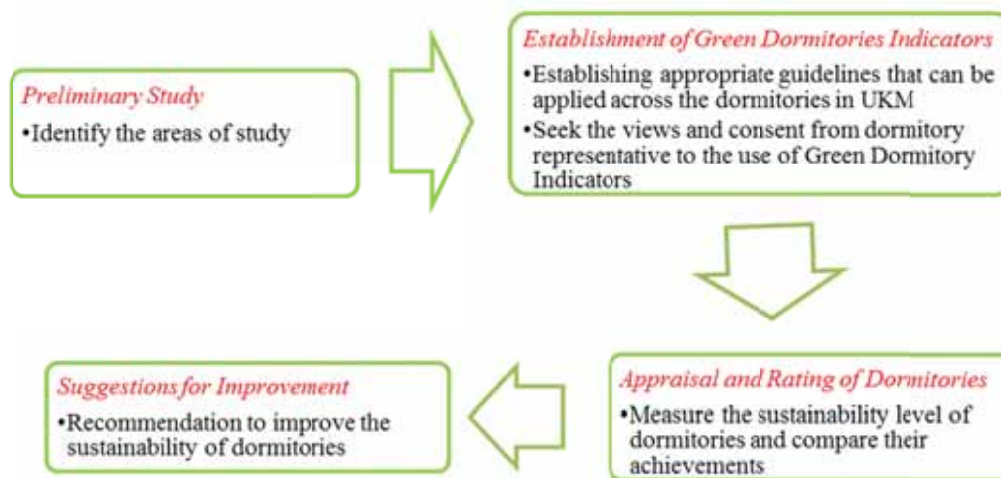
Figure 1. Flow chart for green dormitories indicators study

2.1 Establishment of Sustainable Campus Indicator for Dormitories

There are various aspects pointed out by researchers to be considered when preparing Green Campus Indicator for this study. The following is the lists of sustainability practices being reviewed:

1.   Frangipani Resort and Spa, Langkawi – Malaysia's Green Hotel

2.   Guideline of UI Green metric – University of Indonesia

3.   ASEAN Green Hotel Standards

4.   University of Maryland Sustainability Progress Report

5.   Handbook on the establishment and implementation of Bandar Lestari

6.   Handbook on the establishment and implementation of Sekolah Lestari

7.   Green Key Eco-Rating Program.

Green practices by Frangipani Resort and Spa, Langkawi were taken into consideration and input in this study. Mr. Anthony Wong Kim Hooi as owner's, his effort and interests in implementing green concepts succeeded to establish the resort standing in the eyes of the world from numerous of their achievement nationally and internationally. As they were established as one of the Malaysia's Green Hotel by ASEAN since 2010, a lot of their practices, improved by times and also seem practical to be implemented in dormitories. From the simplest practices such as reuse old woods for their signage to the making of the detention pond, which later channeled to their garden, all are under its owner's supervision.

Apart from that, a guideline of UI Greenmetric sustainable campus indicator prepared by the University of Indonesia committee members. The UI Greenmetric World University Ranking established in 2010. The aim of this ranking is to provide the result of online survey regarding the current condition and policies related to the greening of campuses and improving sustainability in universities all over the world (Universitas Indonesia,

2012). There are six categories included setting and infrastructure, energy and climate change, waste, water, transportation, and education there are 33 indicators were used to calculate the ranking score in their third version (2012). UI Greenmetric was accepted worldwide and they able to attract 215 institutions in their third year of ranking published.

Next is the ASEAN Green Hotel Standards. There are 11 criteria listed for measuring the green practices, which are as follows:

- Environmental policies and actions for hotel operation,

- Use green products,

- Collaboration with the community and local organizations,

- Development of human resources,

- Solid waste management,

- Efficient energy management,

- Efficient use of water,

- Air quality management (indoor and outdoor),

- Control of noise pollution,

- Wastewater treatment and management,

- Management and disposal of toxic chemicals.

By considering hotels and dormitories from the same perspective, which is the main responsibility is to keep the residents comfortable and enjoying their stay at the accommodation, some of those criteria for green hotels listed by ASEAN can also be implemented for dormitories. Thus, it is also possible to bring Green Hotel Standards into Green Dormitories Indicators since there are both on the same perspective. Various other green indicators were being examined such as the University of Maryland Sustainability Progress Report, Handbook on the establishment and implementation of Bandar Lestari, Handbook on the establishment and implementation of Sekolah Lestari and Green Key Eco-Rating Program were also made into reference during the listing of indicators process.

A detailed study of the elements required as the basis for developing the indicators was done to establish the Green Dormitories Indicators. In this step, numerous aspects related to sustainability activities are taken into considerations. However, only the practices that have the potential to be carried out in the dormitories were taken into consideration. Several experienced personnel at the campus dormitories were interviewed to comment on the proposed green indicators for improvement.

2.2 Determining the Rating of Campus Dormitories Sustainability

Each dormitory was evaluated with the Green Dormitories Indicators. Dormitory representatives were selected randomly among the administration fellows. A short interview with the representatives was done during the evaluation. They also gave some suggestions on how to improve the indicators evaluation results. Some problems were identified that are likely to be the reasons of low sustainability practices in the dormitories which directly reflects the individual dormitories sustainability level.

Figure 2 shows the locations of the dormitories on UKM Campus which consists of the following dormitories:

1. Kolej Tun Hussein Onn   - KTHO
2. Kolej Dato' Onn   - KDO
3. Kolej Rahim Kajai   - KRK
4. Kolej Antarabangsa Ibu Zain   - KIZ
5. Kolej Aminuddin Baki   - KAB
6. Kolej Keris Mas   - KKM
7. Kolej Ungku Omar   - KUO
8. Kolej Burhanuddin Helmi   - KBH
9. Kolej Ibrahim Yaakub   - KIY
10. Kolej Pendeta Zaa'ba   - KPZ

Figure 2. Location of the dormitories in the UKM Campus

When the all the dormitories in UKM were evaluated, the score for each indicator were summed up according to the indicator's section. The total scores for each dormitory will represent its level of sustainability. Besides that, total scores for each indicator were used to identify the sustainable practices that are the most and the least being implemented at the dormitories. From this result, analysis will be done to find the possible reasons for obtaining each score. Further, some suggestions were made on how they should each dormitory provides possible actions need to be taken to improve their ratings.

Finally, all the dormitories will be ranked according to their performances from the scores which were obtained from the Green Dormitories Indicators. Future planning were also suggested to improve the practicality of these indicators which indirectly will help to improve the environmental sustainability level of all dormitories in UKM.

3. Results & Discussion

3.1 Green Campus Dormitories Indicator

Resulted from previous established indicators reviewed, a list of green dormitories indicators was made up. Those indicators are shown in Table 1.

Table 1. Proposed green dormitories indicators

ASPECTS	INDICATORS
1: Solid Waste Management	• Recycle bins facility • The use of reusable items • Reduce the use of plastic • Minimize the use of polystyrene in the cafeteria • Kitchen waste separation • Monitoring the amount of solid waste generated • Monitoring of recycling practices • Monitoring of composting practices
2:Water Resources Management	• Monitoring leaks in pipes • Having an adequate water supply

ASPECTS	INDICATORS
	• Rain Water Harvesting System • Innovation to reduce usage of water • Water conservation program
3: Green Office Practices	• Waste reduction practices • Recycling practices • Saving energy and water • 'Green practices' in decorating the office • Appoint staff as 'Green Leader'
4: Education and Awareness	• Have a special committee of college sustainability • Conduct awareness programs at the college level • Following any environmental program at the university • The environmental program conducted at the national level • The environmental program conducted at the international level

3.2 The Ratings of Campus Dormitories Sustainability

Figure 3 shows the total results extracted from the indicators. It demonstrated that green office practices have the highest score as compared to the other three categories which are solid waste management, water resources management and education and awareness. There are some low scores that may result from lack of environmental sustainability activities organized in UKM which lead to low awareness among the office staff members. Solid waste management category is ranked as the second highest score among them as compared to green office practices. Every dormitory had contributed their scores in this category. This result may contribute from numerous activities done in UKM related to waste management practices in the recent years.
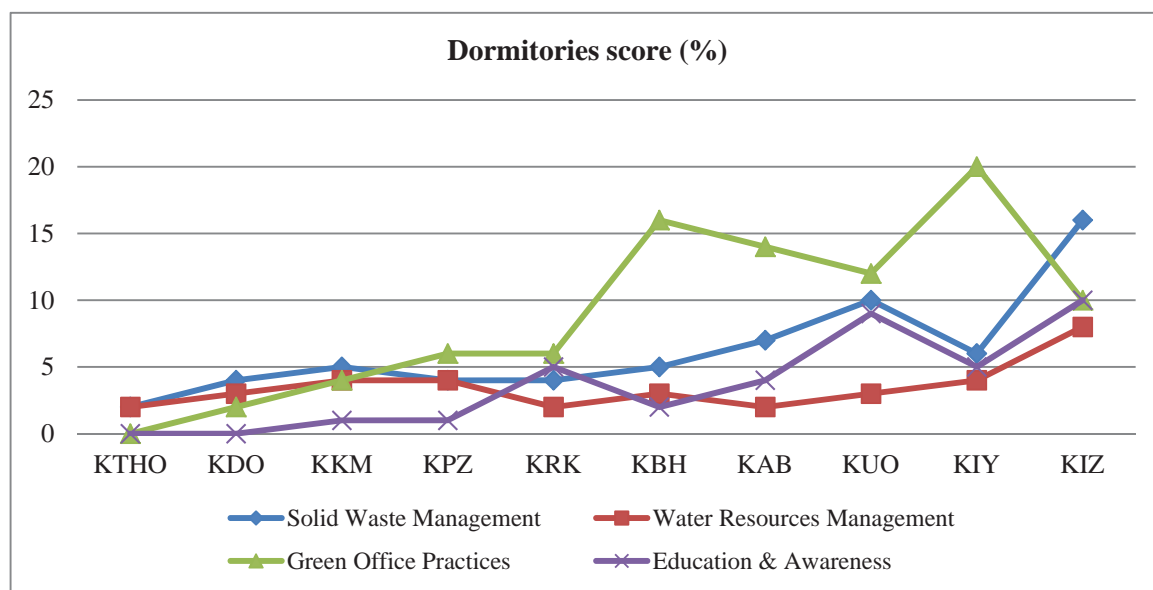
Figure 3. Dormitories score (%) by in different categories

Figure 4 shows the ranking for all dormitories. These results reflect their sustainability level as measured using Green Dormitories Indicators. Ibu Zain International Student Hostel (KIZ) had obtained the highest score, which is 44%, while Tun Hussein Onn College is the lowest with only 4%. It seems that the administration practices of an individual dormitory will determine the category that they will be performing the best. This is because KIZ admin aim and focused are in the sustainability aspects while KTHO admin focus area in Reserve Officer Training Unit (ROTU). The rest of others dormitories are at an average score of 10-30%.
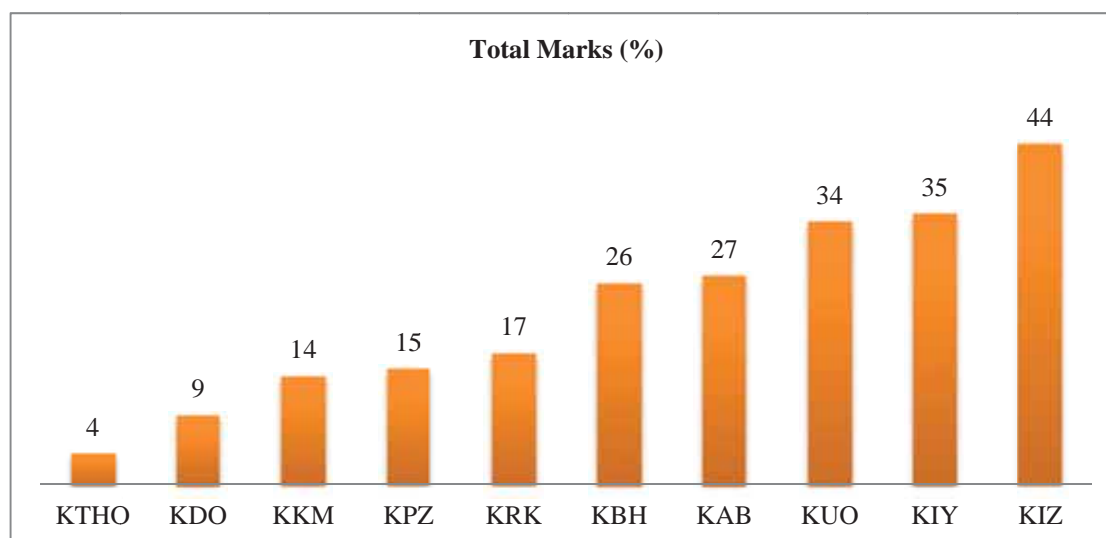
Figure 4. Dormitories ranking

Apart from that, education and awareness programs done by the dormitory administration had directly increased the sustainability practices, and thus they scored higher ranking. This aspect is important for the knowledge and information regarding sustainability will be spread out throughout the dormitory residents, thus making it easier to develop a proper planning for an awareness program to be conducted. From the results obtained indicated that all dormitories had scored very low with the highest of 44% and lowest is 4% with an average of 10-30%. It can be concluded that the overall Green Dormitory Indicators achievement for all dormitories on the campus is very low, thus indicating that environmental sustainable practices is not being implemented well at the campus. A lot of aspects need to be improved in order to ensure the campus environments are more environmental friendly.

4. Conclusions

The main objective of this study is to find an appropriate method that can be used to measure the level of sustainability for a campus dormitory. All dormitories were evaluated equally based on their practices and the scores will be given according to their performances. The Green Dormitories Indicators which were developed from this study has four environment sustainability categories. Besides that, there are a few suggestions provided in the indicators that will help the dormitory administration to find methods in increasing their dormitories sustainability levels.

Green Dormitories Indicators and its ranking provide opportunities for each dormitory to conduct some actions in order to accumulate better results and therefore achieve a better ranking if evaluation is done annually. Green Indicators can be a framework and a standard guideline for constructing a green dormitory and the whole campus, and thus help universities to green their overall activities.

Thus, it is recommended that all dormitories on UKM campus to use the Green Dormitories Indicators in order to measure the level of environmental sustainability from time to time. By doing so, all dormitories will be inspired to enhance environmentally sustainable practices, thus may provide a better surrounding.

Acknowledgments

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Transition of the Higher Education to the Practically Oriented Educational Programmes

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Abstract

The study of the applied bachelor degree course is represented. It is exposed that in the Russian system of the tertiary education the qualified gap has been formed: in practice there is a lack of the educational servicing providers, who execute training of the specializations, uniting the acquisition of the practical skills and theoretical teaching. The European, Canadian and American examples are analysed. The research provides the comparative analysis of the target direction and the applied bachelor degree course. We concluded that in the conditions of the modern life the development of education, and rapid tempos of technology modernization, the top priority is given to the training of graduates, who possess the skills and abilities of the professional adaptation in the rapidly changing world. It is solved which model of education must be preferential today in order to be demanded and employed. The education becomes the means for the most adequate reflection of the market economy and the new society requirements.

Keywords: transport, applied bachelor degree course, professional competences, state-private partnership

1. Introduction

The considerable changes take place today on the local and regional labour markets in Russia. In the process of transition from the planned market economy to the open one the demand for labour and structure of the population employment noticeably changed. Moreover, these changes continue to take place today almost in all sectors of the economy, including the area of water transport. The key changes in the employment are (Further education):

- Restructuring of the industries and creating the new professions;

- Essential expansion of the servicing sector at reduction of the employment;

- Redistributing the labour from the low-qualified professions in the favour of highly-skilled ones with considerable increase of the wage in latter ones;

- Increasing the mobility of labour resources.

The skills, necessary in the framework of the new profession, are noticeably distinguished from those ones, which were necessary in the old now demanded professions. In all areas of economy the mechanical manual labour is replaced by the automated one. Particularly, it is noticeable in the area of organization of transportations with water transport, where the level of complex mechanization frequently reaches 100%. The intensive development and expansion of the service (servicing) sector in the country included redistribution of the labour resources in favour of this area. Thus, redistribution of the labour in the country was caused by the increase of the demand for certain skills and reduction of the demand for others. Today the new skills, more exactly their set reflected in the competences of the future employee and including the basic knowledge and practically oriented professional skills – specific/technical knowledge, - are demanded (Gimpelson, 2007).

The basic knowledge is writing and mathematical literacy, social and communicative opportunities (Peculiarities of the higher education system).

The specific technical knowledge is the set of skills, which allow the individual successful execution of the professional tasks (Rutkowski, 2009).

In the Russian literature the connection between professional skills and individual productivity is traced. In this perspective the skills are the ability to transform their knowledge and skills into the professional result. In the conditions of the modern development of education, and the rapid tempos of technology modernization, the top priority is given to the training of graduates, who possess the skills and abilities of professional adaptation in the rapidly changing world. The education becomes a means for the most adequate reflection of the market economy and new society requirements. The changes of the education bases are accompanied by the global processes of education result reorientation (Tan, 2007).

The requirements, made by the employers to their employees, are increased every day. Many directions, claimed on the modern enterprises of the water transport area, require the essentially higher level of qualification, than before. The modern specialist must know and possess the abilities to manage the high-technological equipment, understand the drafts, be able to read instructions in foreign languages, work with the information and navigation systems and aspire to self-perfection etc. Practically this must be high-skilled diversely developed specialist, who possesses the set of the professional competences.

2. Methods

The system of the tertiary education in the Russian Federation includes the elementary professional (EPE), secondary professional (SPE) and higher professional education (HPE). The skills and competences of the graduates of the programmes of professional training are defined by the education standards of each of three education levels. At that the gap between educational programmes that is expressed in the difference of skill and competence set in the graduates at different levels becomes more felt. The programmes of EPE are directed on the training of the skilled employees, SPE –middle- level narrow specialists, and the system of HPE guides the training of the high category specialists, as a rule, oriented on the leading or scientific-theoretical work.

Thus, in the Russian system of the tertiary education the qualified gap was formed: in practice there is the lack of the educational servicing providers, who execute training on the specialties, uniting the acquisition of the practical skills and theoretical education. Officially this niche is taken by SPE. In fact, it remains free, as the system of SPE doesn't manage its task. In the Russian labour market recently the serious lack of the high-skilled specialists of the technical professions has formed. So, the level of employment exceeds the level of unemployment only among employees, who have the higher and secondary professional education. Consequently, the availability of the professional education reduces the opportunity of falling into the category of the unemployed.

The foreign countries began to solve the analogous problem in the second half of the last century. Presently, the training on such specialties is executed within the framework of the applied bachelor degree course (ABDC). On the assumption of foreign experience the qualified niche, existing in the Russian system of professional education, can be filled in by the way of implementation of the programmes of professional training similar to the applied bachelor degree course (Volberda, 2004).

Table 1. The comparative analysis of the target direction and the applied bachelor degree course

Target direction	Applied bachelor degree course
The target set, as a rule, exists in the branch higher educational establishments	In 2014 the target set in all higher education establishments is planned
The small competition at entrance	The small competition at entrance
Opportunity of continuing education	Opportunity of continuing education
Assignment from the concrete organization	Assignment from the concrete organization
Organization pays out or tries to allocate funds from the budget	At the expense of budget
Working at the enterprise during 3 years	Enterprises are interested in the employees
Organizations don't participate in the development of the educational programmes	Organization participates in the developments of the programmes in the part of professional theoretical training
Additional entrance examinations are absent	Opportunity of the conduction of the additional entrance examinations of the creative and/or professional direction at admission for study

The programmes of the applied bachelor degree course in the countries of the Western Europe relate to the system of the higher non-academic education. They are realized both in the universities together with the programmes of the academic Bachelor degree course, and in the special establishments of the professional education. According to the International standard classification of education (ISCE) of UNESCO the programmes of the applied bachelor degree course correspond to the level 5 V that is described in ISCE as practically oriented programmes of the tertiary education first stage of within the term of education from two up to four years.

Training on the BDC programme in many European countries began at the end of previous century. In some cases for realization of the programmes the educational establishments of the new type were created, in which the theoretical courses were closely connected with the development of professional skills. Thus, the following establishments were formed (University of New Brunswick, VAMK, and University of Applied Science):

- Professional education colleges (further education colleges) in Great Britain (from the applied institutes and technological schools) in 1960;

- Specialized higher educational establishments (Fachhochschulen) in Germany in 1970-1971;

- State colleges in Norway in 1994 (as a result of amalgamation of 98 professional colleges);

- Polytechnics in Finland in 1991 (as a result of amalgamation of 250 institutions of the secondary professional education);

- Specialized higher educational establishments (Fachhochschulen) in Austria in 1993 etc.

Thus, the tertiary education system is expanded to three levels:

- The first level – universities, considerable part of which is oriented on the scientific-research activity;

- The second level – educational institutions of the applied sciences (practically oriented bachelor degree course);

- The third level – professional educational institutions, carrying out training on the technical specialties.

In order that the Russian programmes of the bachelor degree course become the basis for realization of BDC programme, it is necessary to change their content radically, and make them practically oriented. The modern Russian programmes of the bachelor degree course secretly suppose the further education in the magistracy. They are intended for the training of further researches and almost don't give the applied skills and knowledge. The biggest part of the programme is made of the theoretical courses – these programmes are intended for the training of a bachelor, whose basic activity content is solution of the heuristic tasks, execution of the problematic and creative nature work (immediately after obtainment of the bachelor's degree or after continuation of the education in higher educational establishment).

The higher educational establishments were the start platform for the development of country transport complex. However, the absence of the complexity of the scientific researches, and the low effectiveness of scientific development implementation, reduction of the young specialists' quantity, entering for post-graduate study and doctoral training, and want to devote them to the scientific work, remain the serious problem.

One of the tasks of the higher educational establishments, which train specialists in the area of transport management is the usage of the students' scientific-research potential, namely, detection of the talented students and post-graduate students, and their motivation to the choice of academic carrier by the way of involvement to the scientific, pedagogical work, participation in the scientific competitions, conferences, development of the innovation projects, and execution of the economic contractual works. Realization of the majority of scientific-educational projects requires cooperation of higher educational establishments with the enterprises and organizations of the branch.

The mechanism of effective interaction of business and educational community can become the state-private partnership (SPP), especially at realization of the innovation educational programmes and technologies.

SPP can be defined as a system of the long-term relations between the state and representatives of the private sector on realization of the combined projects based upon distribution of the profits or non-material benefits, expenditures and risks. SPP in the area of education represents the alliance between the state and business for the purposes of the educational project realization based upon the legislative acts and special agreements. Notwithstanding the practice of mechanism application in SPP is mostly developed namely in the transport complex, the SPP mechanisms in the area of training the staff for branch still works weakly. The low investment attractiveness, the absence of the commercial interest, the absence of the legal base and lack of the high-skilled

specialists in the area of creation and management of the projects restrain the financial support of the educational complexes by shipping companies, ports and dock plants.

We suppose that the applied bachelor degree course can be implemented in the Russian higher educational establishments. The main problem is the necessity of the considerable expenditures on creation of the material-technical base for practically oriented education that higher educational establishments don't have in majority.

The second possible variant of realization of ABDC in Russia is creation of the corresponding courses on the basis of the education programmes of SPE.

The programmes of the secondary professional education, existing in Russia, in their essence are the analogues of the European programmes of the applied bachelor degree course. They have practically oriented nature and allow graduates entering the labour market directly after teaching (don't require and suppose the further education). However, the Russian programmes of SPE have weak (implicit) connections with the labour market: after graduation the students must employ themselves, and appeal into the employment service. Moreover, the programmes considered differ from the European ABDC programmes in relation to the content of competences, which are mastered in the process of study. Except for the executive skills the APDC programmes suppose teaching the organizational and managerial competences. The graduates of the applied bachelor degree course programmes are high-skilled specialists, able not only to execute the instructions and follow the regulatory documents, but to take initiative in their hands, think out the new ways of solving the tasks, and create something principally new.

Let's consider the similarity and difference of the foreign ABDC programmes and the Russian professional education more properly.

The programmes of the secondary professional education on the level of training, which exist today in Russia, are divided into the programmes of the basic and increased level.

The educational standards of the SPE basic and increased level suppose execution of the programmes of similar activity types by the graduates: industrial-technological, organizational-managerial, constructive-technological, and experienced-experimental. However, the SPE increased level is more advanced and provides the students with wider spectre of competences beginning from the executive to managerial ones.

Thus, the SPE programmes of the increased level are actually direct analogues of the foreign applied bachelor degree course programmes. As it was said above, both of them have the practically oriented nature and allow a graduate executing the direct exit on the labour market, provide finished specialties, i.e. don't require and suppose the further education. The unessential corrections of SPE increased level programmes transform them into ABDC programmes. However, unfortunately, the SPE programmes of the increased level are not realized according to key directions, as machine-building, country and fish economy, construction and architecture, service, automation and management, instrument-making, metallurgy, energetic etc.

3. Results

Summarizing the above-mentioned, we can answer exactly the question "What model of education must be preferential today in order to be demanded and employed?"

The target education have been existing for many years already, and the certain percent of the students was chosen and without fail would choose namely this model of education. It is experienced by ages and generations, and there is nothing unknown and frightening in it. Nevertheless the applied bachelor degree course still didn't recommended itself, as approbation of this model has not been finished yet. This novelty involves variety in training of the practically oriented workers to the activity, connected with implementation, adaptation, optimization of the innovation technologies and technological processes. However, not every educational establishment can implement the applied bachelor degree course in all planed results. For this purpose it is necessary:

- To have staff, capable to provide studying the demands of region labour market, and programme development, including professional modules, organization and content of the theoretic and practical component of the programme;

- That the staff potential of the educational establishment included not only the teaching staff, but the representatives of employers, having the experience of practical professional activity, connected with programme realization;

- To possess materially technical and scientific-methodological base, necessary for programme implementation;

- To have the base of practices on the enterprises, the newest equipment, laboratories and workshops, computer equipment, teaching-books, trainers, access to the corresponding new literature and electronic carriers;

- To have the productive mechanisms of employment of the graduates, agreements with employers;

- To renovate, and specify the results of programme acquisition annually;

- To use laboratories, training ground of the enterprises, base of practices;

- To take part in the practice management;

- To develop the tasks for thesis projection and programmes of the state and summary attestation and participate in its holding;

- To organize further education courses of the teachers and their probations.

The needs of modern Russian labour market are different, but the unity of employers is revealed in one that there is a need in high-skilled staff beginning from the worker, process-technician to the scientific investigator.

One of the ways leading to the increase of accessibility of the qualitative education that corresponds to the requirements of innovation development of the Russian economy, modern society and human demands is the development of the educational programmes variety.

Mission of the applied bachelor degree course programme lies in following:

- To overcome the risk of loss of the practically oriented programmes at introduction of the level higher education;

- To reduce the expenditures levels of the employers' organizations upon the end of graduates' teaching;

- To adapt the educational programmes of higher educational establishments to the order of the practically oriented results, which corresponds to the requirements of professional standards;

- To reduce the terms of young people entrance into the labour market in the conditions of demographic crisis and staff ageing;

- To reduce the risk of the graduates' unemployment;

- To expand the variety of educational programmes and reduce their doubling on the level of secondary and higher professional education.

What kind of education model can "grow" such specialist, and how to teach students in order to realize and employ them on the labour market is the essential issue of the industrial world. In the present conditions of education development and quick tempos of technology modernization, the top priority is given to training of the graduates, who possesses the skills and abilities of the professional adaptation in the rapidly changing world. The education becomes a means of the most adequate reflection of the market economy and new society demands.

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Intangible Assets and Competitive Advantage in Retail: Case Study from Russia

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Abstract

The article focuses on the ways effective intangible assets management helps the leading Russian food retailers derive ancillary competitive advantages. Analysis and assessment of intangible assets effectiveness (which is considered to be a source of retailer competitive advantages) include analysis of intangible assets as a part of company assets, analysis of intangible assets effectiveness using conventional indicators, valuation of intangible assets and business, analysis of private labels, and analysis of intangible assets franchising. As a result we have formulated characteristic features of formation of Russian retailers competitive advantages when using intangible assets in the process of operating activities (including the management of private labels), in franchising, as well as in the   intangible assets accounting policy and management of the market value of the business. The findings of this research can be employed by retailers in actual practice of intangible assets management to achieve and maintain a high level of competitiveness.

Keywords: competitive advantage, efficiency, intangible assets, retail, Russia

1. Introduction

Russian retail trade at its modern stage of development is distinguished by a high level of competition (Bortnikova, 2012; Platonova, 2013; Seleznyova, 2011). Russia's admission into WTO, active growth of both domestic (Dixy, O'Key, Lenta, etc.) and foreign (Auchan, Spar, Douglas, IKEA, etc.) retail companies will facilitate more intensified competitive struggle. As things currently stand, creating of sustainable competitive advantages becomes a sine qua non condition for commercial success of any business engaged in retail trading.

Presently, Russian retailers compete primarily in location of stores, pricing, quality, assortment and service (Magnit, 2012), i.e. conventional factors that can be quite quickly replicated. Modern retail development trends require new instruments that are more effective. At the stage, intangible assets (IA) management seem to be the most promising source of ancillary competitive advantages for retailers. At the same time, studies show that at large Russian companies feature extremely low process of asset intellectualization (Seliverstov, 2013). Retail trade is not an exception, as IA share in total amount of companies' assets is less than 1% (First Independent Rating Agency [FIRA], 2013). IAs significance and simultaneously lack of their active use by retailers substantiate actual relevance of the issue in question.

In this article we will inquire into the ways effective use of IA helps retailing ancillary competitive advantages to emerge through the example of leading Russian food retailers Magnit and X5 Retail Group.

2. Literature Review

Some researchers in Russia have already noted IA importance as a source of retailer competitive advantages. For instance, Kafiatulova (2010) in the article dedicated to competitive advantages in retail trade distinguishes between tangible and intangible resources, referring branding, reputation, and skills to the latter. Selyukov, Schalygina and Savenkova (2011) qualify information, intellectual and technological potential as intangible factors of retail organization competitive advantages. Khalezov (2013) addresses the issues of competitive advantages for small retail enterprises in the context of innovation potential. Paramonova and Krasyuk (2010), Logunov (2006) reckon private label as the element of retailer competitiveness. Gorba (2012) calls creation of private label a complex competitive advantage of retail chains. Some authors take into account brand (Bogdanov, 2012) and business reputation (Nikolaeva & Yalunina, 2006) to assess retail enterprise competitiveness.

Therefore, the authors mark out relevance of IA to competitiveness of a company and make a detailed research into their specific types, while no study targeting the full aggregate of IAs as an instrument to obtain competitive advantages on Russian retail market has been undertaken so far.

Besides, a large importance is attached to scientific materials that analyze and assess IA effectiveness (Loseva, 2010; Nikitochkina, 2010; Palamarchuk & Tsareva, 2010; Sheremet, Saifulin, & Negashev, 2000), IA commercialization (Fakhrutdinova, Kolesnikova, Yur'eva, & Kamasheva, 2013), IA utilization to enhance competitiveness of organizations (belonging to spheres other than retail) (Ambrusevich & Kudashov, 2011; Sorokina, Zakharov, & Boronnikov, 2011), address issues of retailer competitiveness (Bukhtiyarova & Tashkinova, 2012; Dikanov, 2011; Dubrovin, 2010) and effectiveness (Emelianova, 2004; Nikulina, 2013, Solomatin, 2009). Retailer IA functioning studies also touched upon intellectual property (Bazhenov, 2013), business reputation (Ivanov & Mayorova, 2014; Roggeveen, Goodstein, & Grewal, 2014), private labels (Kumar, Steenkamp, 2007; Plotnikov, Ponosova, & V'jyugova, 2013; Zhang, 2010), innovation (Kavtaradze, 2010; Popenkova, 2014), franchising (Vasil'eva & Vakhitov, 2012), image and brand (Abdullah et al., 2012; Ene & Özkaya, 2014), etc.

3. Methods

Scoring ancillary competitive advantages by Russian retailers as a result of more effective IA management is scrutinized through the examples of Magnit and X5 Retail Group companies. For the purposes of the work we use materials accessible at official web-sites of the companies (annual reports, presentations, etc.) and other publicly available online information.

Analysis and assessment of IA effectiveness (which is considered to be a source of retailer competitive advantages) were conducted in compliance with methodology, which includes the following areas of concern:

3.1 Analysis of IA as a Part of Company Assets

(Analysis of IA share in company assets, analysis of IA scope and its dynamics, analysis of IA structure etc.). Despite such analysis incorporates no effectiveness criterion and does not make it possible to evaluate IA influence on resulting company performance, it is deemed obligatory, as it helps form an comprehensive notion of IAs work principles, their positions and roles in organization and surface common trends of their development.

3.2 Analysis of IA Effectiveness Using Conventional Indicators

This area of concern complies with traditional approach to estimation of effectiveness (effectiveness as ratio of gained results to resources and costs necessary therefor) and helps assess IA in terms of results obtained by making use of them. Primary IA effectiveness indicators will be IA profitability calculated using a generally recognized formula as ratio of profit to IA cost average within the period considered, and return to IA, which resulting calculated indicator shall be commodity turnover.

3.3 Evaluation of IA and Business

This approach considers primarily market value of IA (or the whole business) calculated by expert methods and company capitalization and its relation to net asset book value as effectiveness indicators. Use of cost as IA effectiveness indicator helps escape shortcomings of balance sheet data and link IA effectiveness assessment to company as a whole through cost-based approach that brings business value growth to the forefront.

3.4 Analysis of Private Labels

Necessity to make such analysis is stipulated by substantial private label's impact upon retailer profitability, stable growth of their share in both number of commodity items and sales volume. Private label analysis includes scrutinizing such indicators as number of commodity private label names, private label commodity sales revenue, its share in company total revenue and others. Apart from that, a comprehensive research into private label management strategy is stressed, including that in its correlation with business standing.

3.5 Analysis of IA Franchising

Franchising may have a significant both positive and negative impact upon end performance and competitiveness of retailers. Franchising analysis shall not only allow for quantitative indicators (including amount of revenue from franchise services, share of franchise services in company total revenue, total number of franchises) but also its qualitative effect on retail enterprise business reputation.

4. Results

Enjoying leading positions on Russian food retail market, Magnit and X5 Retail Group are immediate competitors (Table 1).

Table 1. Leading food retailers in Russia (X5 Retail Group, 2013)

#	Company name	Net retail sales 2013, USD mln	Percentage share in top ten	Percentage share of total food market
1	Magnit	17 824	24.8%	5.8%
2	X5 Retail Group	16 726	23.3%	5.5%
3	Auchan	11 911	16.6%	3.9%
4	Metro	5768	8.0%	1.9%
5	Dixy	5617	7.8%	1.8%
6	Lenta	4530	6.3%	1.5%
7	O'Key	4323	6.0%	1.4%
8	Seventh Continent	1852	2.6%	0.6%
9	Monetka	1677	2.3%	0.5%
10	Maria-Ra	1633	2.3%	0.5%

4.1 Analysis of IA as a Part of Company Assets

Table 2 shows that IAs feature among the assets of both retailers in question. Absolute book value of IA and share of IA in X5 Retail Group's assets is substantially higher than in those of Magnit, with both the indicators of the former, however, tending to decrease. Volume and share of IA in property of Magnit, on the contrary, show an upward trend. IA balance value growth brings about the following advantages: higher total balance sheet value of the company and, consequently, enhanced investment potential; growth of net asset value which in its turn is indicator of company financial sustainability; growth of depreciation fund of the organization resulting in substitution of IA with real monetary funds; lower profits tax due to IA depreciation. On the other hand, we should keep in mind that recording a higher value of IA may bear both positively and negatively (balance structure degradation, current liquidity ratio deterioration, and aggregate capital turnover slowdown, etc.) upon operation of companies and thus shall not be their ultimate goal.

Table 2. Intangible Assets of Magnit and X5 Retail Group

Company name	2007	2008	2009	2010	2011	2012	2013
Intangible assets, USD thousand							
Magnit	1103	1776	3718	6283	8845	17 223	22 619
X5 Retail Group	523 535	499 188	496 111	718 854	601 026	503 483	427 124
Intangible assets growth rate, %							
Magnit	118.99	161.02	209.35	168.99	140.78	194.72	131.33
X5 Retail Group	106.35	95.35	99.38	144.90	83.61	83.77	84.83
Intangible assets share in company assets, %							
Magnit	0.07	0.10	0.15	0.17	0.16	0.24	0.28
X5 Retail Group	8.03	8.82	8.03	8.21	6.82	5.25	4.63
Intangible assets share growth rate, %							
Magnit	65.38	141.45	152.68	115.83	95.34	146.09	116.37
X5 Retail Group	83.04	109.86	91.04	102.25	83.11	77.02	88.13

Magnit's IAs are represented by licenses, lease rights, software, trademarks and other IAs, with the value of each separate type of assets increasing over time. Software is the permanent leader in absolute value and, correspondingly, in share in the aggregate of Magnit's IAs (Figure 1). Software facilitates the labor productivity growth, enables the company to increase the quality of services and cut expense by automation of certain processes. X5 Retail Group's IAs include brand and private labels, franchising agreements, lease rights, software

etc. (Figure 2). The largest influence on the amount and dynamics of IAs is made by brand and private labels that constitute more than half of the retailer's aggregate IA. Presently, brand is one of irreplaceable competitive advantages, as it appeals to customer on emotional level, guaranteeing quality of services and thus spurring demand and reducing costs. Private label's afford a differentiation opportunity, provide full control over pricing process, help lower promotion expenses, enhance customer loyalty etc., which is sure to have a positive influence on competitiveness of the company. Besides, as opposed to Magnit, X5 Retail Group holds franchise agreements that represent right to additional profits in the form of royalty.
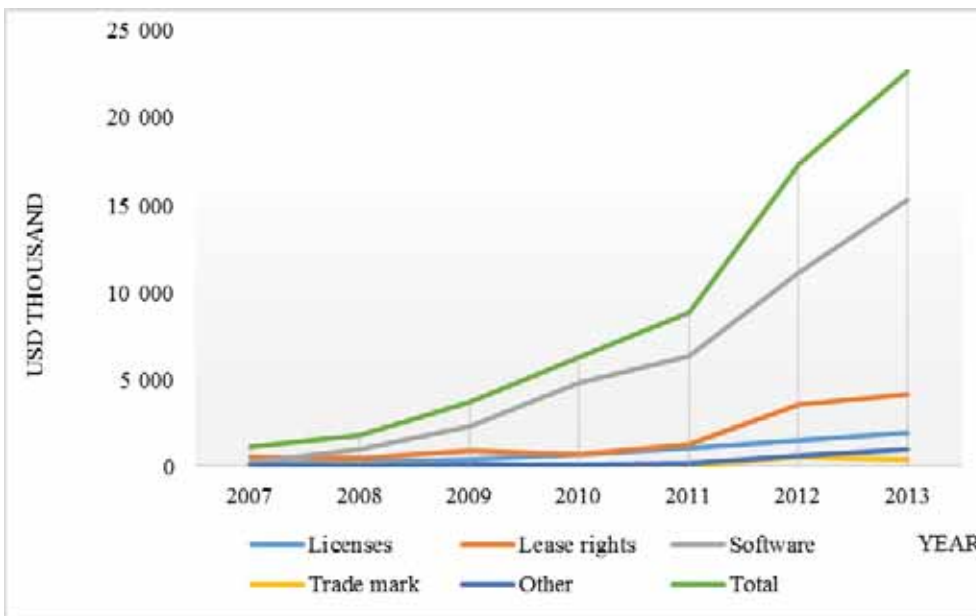
Figure 1. Intangible Assets of Magnit
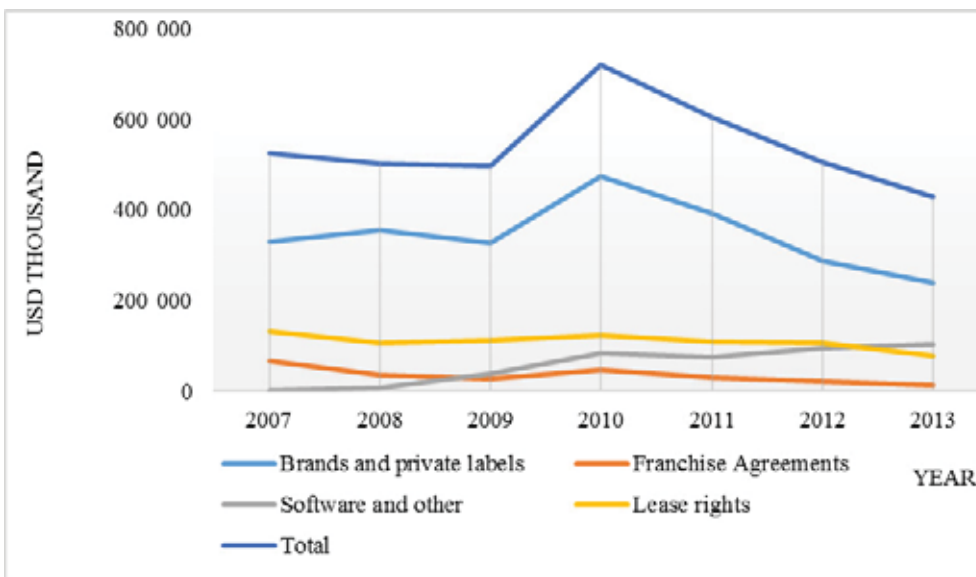
Figure 2. Intangible Assets of X5 Retail Group

4.2 Analysis of IA Effectiveness Using Conventional Indicators

Magnit's IA return and profitability indicators are considerably higher than those of X5 Retail Group (table 3). Therefore, IA value unit of Magnit correspond to larger sales and profits volumes, which sets the retailer apart from the rival company. At the same time dynamic analysis of IA in its correlation with key financial results shows that Magnit's IAs growth rate usually exceeds that of its turnover and revenue, resulting in reduction of their return and profitability. On the whole, X5 Retail Group is distinguished by increase in turnover and net

profits growth rates over growth rates of IA average values, which can be seen as a positive trend in terms of their effectiveness.

Table 3. Intangible assets return and profitability indicators

Company name	2007	2008	2009	2010	2011	2012	2013
Return on Intangible Assets, USD							
Magnit	3622.23	3715.04	1949.21	1555.33	1510.21	1107.08	913.71
X5 Retail Group	10.48	17.39	17.52	18.57	23.42	28.60	36.07
Intangible Assets Profitability, %							
Magnit	9595.07	13 054.19	10 016.53	6673.25	5535.11	6197.71	5614.42
X5 Retail Group	28.30	23.22	33.23	44.65	45.79	-22.91	74.12

4.3 Assessment of IA and Business Value

Both capitalization and ratio of capitalization to net asset value of Magnit stand head and shoulders above X5 Retail Group's market figures (table 4). In addition, Magnit is the only Russian retailer that is included into Brand Finance Global 500 (The World's Most Valuable Brands). Higher market value and positive expert appraisal of Magnit bias for better business reputation, creditworthiness and investment potential of the company, thus providing ancillary advantages over its competitors.

Table 4. Market Value of Intangible Assets of Magnit and X5 Retail Group (Brand Finance, 2013)

Indicator	Magnit	X5 Retail Group
Capitalization, USD Mln	23 277.2	4,790.6
Capitalization/Net assets	7.1	2.2
Enterprise Value, USD Mln	14 609	-
Brand Value, USD Mln	3413	-

4.4 Analysis of Private Labels

X5 Retail Group is considered to be the first Russian retailer to include private label goods in its assortment (in 2001), while Magnit started to develop private label as early as in 2002. At present, X5 Retail Group sell about 2000 private label commodity items, Magnit – 681, with private label share, however, in revenue of the companies in question differing insignificantly (15.1% –Magnit, 13% – X5 Retail Group).

The companies reveal qualitative differences in private label management. For instance, the retailers take different approaches to market private label, offering private label commodities in different price brackets. Magnit primarily lures its customers by low cost (with acceptable quality), whereas X5 Retail Group offers private label goods in three tiers at once – low-range, mid-range (mainstream) and premium tier. Such contract is largely attributable to formats of the stores. Private label commodity sale in low price segment enables company to obtain economy of scale, while markup is stressed in high end (premium) segment. Apart from that, private label exclusive premiums may serve as an instrument to stimulate customer retention, which can also be seen as ancillary competitive advantage.

4.5 Analysis of IA Franchising

At present, Magnit does not practice franchising, as management of the company has not taken risks of providing franchises to Russian entrepreneurs, instead preferring to control the whole operation on centralized basis. Advantage of such approach is no risk of the franchisor's business reputation deterioration as may be caused by franchisee's actions, as lower service quality or noncompliance with the company standards by a separate store tells adversely upon customer perception of the retailer as a whole. X5 Retail Group, to the contrary, promotes franchising actively, while being the only company in Russia to employ reverse franchising model, when franchisor enjoy full control over partner's stores and pays a portion of its revenue to franchisee (which helps minimize the risks of reputational losses). Besides, in 2012 Pyatyorochka store chain belonging to X5 Retail Group won the nomination Franchisor 2012 in National Franchising Award "Golden Brand". Although revenue

from franchise services and its share in total revenue of X5 Retail Group are insignificant at the present (less than 1%), active use of franchising serves as an efficient instrument to drive the business forward.

5. Limitation of Study

Analysis of the findings shall allow for certain restriction. First, the research is based on data made publicly available by the retailer in question. Reluctance of Russian companies to indicate and specify information of results of their intellectual activities restricts the input data and thus the results obtained. Second, study of IA effectiveness and corresponding competitive advantages of the companies targeted mainly the identifiable part of IA, while no analysis of business reputation (in terms of public perception of a company), which is qualified as an IA according to Russian   principles of accounting, and its components was undertaken.

6. Conclusions

Currently, Russian retailers (as well as companies from other industries of Russian economy) use IA is underused. In this article we looked at the ways effective IA management helps the leading Russian food retailers – Magnit and X5 Retail Group – derive ancillary competitive advantages. The research revealed that IAs hold significant promise for enhancing of retail company competitiveness.

In summary, the use of IA and its benefits for retailers in Russia can be concluded as follows:

1) Various types of IA in operating activities allows the retailer increasing the labour productivity, reducing costs (including personnel cost), attracting and retaining customers by providing unique supply or a higher quality of service. The inability to reproduce the IA keeps the created advantages in the long run.

2) Private labels are now becoming one of the most promising IA for Russian retailers to create competitive advantages. Effective management of private label contributes to the optimization of assortment and price formation, imaging and reputation, it can serve as a tool for emotional involvement and increase customer loyalty, as well as the differentiation of the company. Special significance of private label for Russian retailers is their rather recent appearance in Russia and their beginning to develop.

3) An important use of IA in retail is franchising. Despite the recognized franchising benefits of business development, a specifics of the Russian market is the increased risk of deterioration of the franchisor business reputation by the fraud of the franchisees, which makes reverse franchising reasonable in Russia.

4) IA form a significant part of the company's capitalization. Higher business value helps improve its creditworthiness and investment attraction that certainly is for the retailer's most important competitive advantage.

5) The carrying value of IA, to be included in the accounting records of retailer, has an impact on its financial stability, liquidity, taxable base for income taxes, and amortization. The international as well as the Russian accounting standards suppose the management of IA in accounting policy of the organization, which can result in increased efficiency and competitiveness of the retailer.

Thus, we have formulated a general direction and specifics of IA application by retailers in Russia. Each of these directions requires further detailed study with a view to developing precise ways of creating additional competitive advantages for retailers accounting the specifics of the Russian market.

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The Relationship of TV News Channels Consumption with Political Participation, Political Knowledge and Civic Engagement

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Abstract

Pakistani TV news channels have greater viewership than any entertainment channel which shows the political interest of Pakistani citizenry. This study deals with the consumption of TV news channels and its effects on the political participation, political knowledge and civic engagement of youth. Data collected from respondents (N = 246) of six different universities in two urban cities Islamabad and Lahore, showed that social connectedness and civic engagement of youth influenced the political participation while political knowledge was not affected. TV news channels consumption exhibited positive correlation with the political participation, political knowledge and civic participation as well as likelihood to cast vote. Though, this study did not trace the cause and effect relationship of TV news channels consumption with political participation, political knowledge and civic engagement.

Keywords: political participation, political knowledge, civic engagement, mass media consumption

1. Introduction

In the present age, importance and influence of mass media is undeniable. Mass communication researchers have always been indulged in studying the effects of mass media (Katz, 2001). This media effect paradigm has been shifting from direct and powerful effects to minimal effects and then again settling to significant effect (Katz, 1980; Chaffee & Hochheimer, 1982; Bryant & Thompson, 2002; Keppinger, 2008). Effect paradigm furthers this notion that media influence significantly on attitudes, behaviors, perceptions, knowledge and opinions of public. Mass media shape not only social but political behaviors of masses also. Particularly for seeking information, media is reckoned a source by all and sundry, a considerable amount of research has traced newspapers and TV channels both as source of political information (Robinson & Levy, 1996; Guo & Moy, 1998). People take information from media, its content shape their opinion and ultimately they may make informed political decisions.

There is a vast body of literature about the role of TV channels on the political participation and engagement of citizenry. Both political scientists and mass communication researchers have studied political participation, engagement and knowledge. Besides a lot of research in this regard no study seems to be conclusive about their relationship with media. As every study has described and operationalised them differently. While defining political participation and civic engagement, some of the researchers were more concerned about engagement and participation rather than its nature of being political or civic (Ekman & Amna, 2012). In some instances civic engagement was used as a construct including everything from voting in elections to charity, or from bowling in leagues to participate in political rallies and marches (Berger, 2009). Putnam (1993) also included almost everything even he added media consumption in this construct as well. Adler and Goggin (2005) distinguished different types of engagement and discussed political aspect of engagement separately as political participation. They included political knowledge also as a measure of engagement. Some researchers have used only voting as a measure of political participation (Peer, Malthouse, & Clader, 2003), while some have used intent to vote with other indices like interpersonal discussions and campaign participation (Moy, Xenos, & Hess, 2005). Civic engagement, political participation and engagement are found to be related with each other (Verba, Scholzman, & Brady, 1995).

It is the finding of many authors that watching TV news enhances the political participation, knowledge, civic engagement, political efficacy and trust in political system (Norris, 1996, 2000a, 2000b; Shah, McLeod, & Yoon, 2001; Zhang & Chia, 2006; Ho et al., 2011; Kim, Scheufele, & Han, 2011).Vote casting is considered as embodiment of democratic political process and it is found directly associated with watching news regularly (Paterson, 2000). Some researchers have concluded differently, that TV is the reason for erosion of information levels among viewer. Not everyone tends to grab information from TV channels, as some people switch to entertaining content for the purpose of seeking fun thus causing the declining voter turnout (Gentzkow, 2006).

Different researchers have cited different reason for this negative role of TV and seemed to be in consensus about the mistrust, dissatisfaction, and disengagement from political process among TV viewers (Ansolabehere & Iyengar, 1995; Capella & Jamieson, 1997; De Vreese & Semetko, 2002; Pedersen, 2012). Putnam (2000) has also concluded that high consumption of TV channels has resulted in low level of civic engagement as people indulge in the viewership and are left with no time to socialize. But de Vreese and Boomgaarden (2006) noted "virtuous" media effect of news TV channels rather than "vicious" effects. Curren et al. (2014) also acknowledge that research in the field of political communication is divided between positive and negative effects of media. "Media malaise" (Robinson, 1976) and mobilization role of media (Newton, 1999) both are undeniable. This study will evaluate the role played by media for reinforcing democracy and will measure the relationship of TV news channels' viewership with political participation, knowledge and civic engagement of youth in Pakistan.

Young people are attracted to modern forms of media like TV Talk shows, TV news magazine shows, cable TV, and TV is very important source of information for them (Katz, 1993; Hoffman & Thomson, 2009). Focus on youth for studying media effect can be accounted for the reason that in this age effects can be stronger than the adult audiences who have already mature perception and notions (Arnett, 1995). People who are reported to be active in their early age, they remain same in the later years also (Jennings & Stoker, 2004).

Pakistan is a country of 196,174,380 people (Central Intelligence Agency, 2014), 67.1 percent of this population is below the age of 30 and TV channels became main source of information for them during the elections of 2008 and 2013 (Yusaf, 2013). 66 percent Pakistanis believe that TV talk shows provide credible information (Gallup Pakistan, 2013) and youth is satisfied with amount of coverage given to important issues by political talk shows (Mashud et al., 2013). In this scenario and in the light of already done studies, this study will focus on the effects either "virtuous" or vicious" of TV News channel consumption on the political participation, civic engagement and political knowledge.

Our hypotheses for the study are as follows.

H1: TV news channel consumption has a significant association with civic engagement, political knowledge and political participation.

As political participation, knowledge and civic engagement are reported to be related to each other so our next hypothesis predicts relationship between these three also.

H2: Political participation, knowledge and civic engagement have significant relationship with each other.

As in many studies it is found that TV channels viewership somehow influence the social and political activities, it is not clear yet whether people both politically and socially active take much interest in TV channels and other sort of media or watching TV channels and using different media ultimately result in political and civic participation. So lastly it is hypothesized that (**H3)** increase in TV news channels consumption will cause high level of political participation among youth.

2. Methods

The above mentioned hypotheses are tested using data collected through survey as method, which was conducted in Lahore and Islamabad. The questionnaire (see Appendix A) carried questions about the media consumption of youth, their preferences for different forms of media, and their political and social attitudes. A total of 246 respondents (age, M = 23, SD = 4.16 and female 51.6 %) from six different universities of both cities filled the questionnaire. In terms of gender distribution, this data was representative of overall population of Pakistan.

2.1 Variables and Scale Development

2.1.1 Media Consumption

Questionnaire included detailed measure of media consumption among youth. They were specifically asked to report time, they spent reading newspapers (less than one hour per week 60.2%, M = 1.86, SD = 1.27), political magazines (less than one hour per week 80.5%, M = 1.39, SD = 0.931), watching TV news (approximately one

hour per day 29.3%, M = 3.1, SD = 1.57) and TV talk shows (less than one hour per week 29.7%, M = 2.79, SD = 1.58), listening radio (less than one hour per week 81.7%, M = 1.37, SD = 0.985) and using internet (less than one hour per week 31.3%, M = 2.85, SD = 1.75), for getting political information. Options in this question ranged from less than one hour per week, 1-3 hours per week, 3-5 hours per week, approximately one hour per day, 2-3 hours per day and 3 or more hours per day. On additive index three different variables are created from these options. Total media consumption is the numeric variable which is made up with the additive index of all types of media consumption with highest 36 and lowest 6 of the value. TV news consumption (highest 12 and lowest 6 value) was made up of TV news and TV talk shows' viewership. While with the additive index of newspaper and political magazine readership generated variable print media consumption (highest 12 and lowest 6 value). While respondents report their media consumption patterns, recalling the exact number of hours they spend using media may be difficult at times.

2.1.2 Political Participation

This was the dependent variable in the study and we wanted to see how news and political talk shows on TV channels and attitudes of youth and their activities in society affect their level of political participation. In this study we have used the typology developed by Verba and Nie (1972) for political participation but has modified it according to the situation in Pakistan.

For the measurement of political participation, six different questions were asked (α = 0.757). These questions addressed different activities and options ranged from never, rarely, once or twice in a week to always. Activities included participation in student societies (rarely 46.3%, M = 2.13, SD = 0.854), discussion of politics with friends, family and colleagues (daily 34.1%, M = 2.97, SD = 0.927), sharing political content on social media like Facebook and Twitter (rarely 30.9%, M = 2.35, SD = 1.03), writing letter about any political issue to TV anchors or politicians (never 78.5%, M = 1.28, SD = 0.591), participation in any political rally (never 48.4%, M = 1.63, SD = 0.710) and likelihood to cast vote in any election (M = 2.60, SD = 0.630). While for voting three options yes (67.5%), no (24.8%) and not sure (7.7%) were listed. A numeric variable of political participation was created after computing the values of six questions regarding political participation. This variable carried the lowest value 6 and the highest value 35.

2.1.3 Civic Engagement

In this study we have derived this construct from the definition of Ekman and Amna (2012). Level of activity and participation in community was also measured with six questions (α = 0.69). Questions were asked about the sports activity (rarely 45.9%, M = 2.54, SD = 0.874), religious activity (rarely 36.2%, M = 2.82, SD = 0.923), donations respondents give (once or twice a week 44.7%, M = 2.55, SD = 0.697), volunteer work (rarely 53.7%, M = 2.05, SD = 0.773) and money for social cause (rarely 54.1%, M = 1.84, SD = 0.721) and participation in human rights organization (rarely 49.6%, M = 1.81, SD = 0.721). In these questions, options were never, rarely, once or twice in a week and always. A numeric variable of civic engagement was created with the additive index of six questions (lowest value 6, highest 36).

2.1.4 Political Knowledge

Political knowledge has been used in some studies as independent variable (Junn, 1991; Carpini & Keeter, 1996; Milner, 2002; Larcinese, 2005) while in some studies it has been a dependent variable (de Vreese & Boomgaarden, 2006; Grönlund & Milner, 2006; Kenski & Stroud, 2006). But in studies mostly related to political participation or engagement it remained a predictor. So in this study also we will measure its relationship with media consumption pattern and then also see its effect on political participation.

In every study political knowledge seems to be a construct not easy to measure. In some researches self-reporting measure has been used for political knowledge. But this is very subjective way of assessing knowledge as most of the people will rate themselves as knowledgeable persons. Objective measure of political knowledge has also some problems as some people may have better recalling so they can easily give answer to some general political questions (Gojra, 2012).

We followed Adler and Goggin (2005) and asked four general political knowledge questions to measure political knowledge. In these questions every right answer was scored 1 while wrong answer earned 0. Total political knowledge was calculated after adding the scores of four questions with maximum score 4 and minimum 0.

2.1.5 Control Variables

In this study demographic variables age (M = 23, SD = 4.16), gender (M = 1.5, SD = 0.501 and female 51.6 %) and years of education (M = 2.06, SD = 0.826) are included as control variables.

3. Results

Table1 shows a correlation matrix of our control variables, three constructs and TV news channel and print media consumption. Among control variables two were categorical in nature, so for gender and year of education we applied Spearman rank correlation while for rest of variables Pearson's correlation is applied. According to the table gender is correlated negatively to political knowledge (rho = -0.323, p < 0.05), civic engagement (rho = -0.270, p < 0.05) and political participation (rho = -0.201, p < 0.05). Age is found correlated to political knowledge (r = 0.285, p < 0.05) and political participation (r = -0.155, p < 0.01) while years of education is correlated to political knowledge (r = 0.242, p < 0.05) only.

TV news channel consumption is positively associated to political participation (r = 0.202, N = 246, p < 0.01), political knowledge (r = 0.184. p < 0.01) and civic engagement (r = 0.148, p < 0.05). This correlation matrix provides evidence for H1. Table 1 further shows a significant positive relationship of political participation with civic engagement (r = 0.445, p < 0.01) while political participation is not associated with political knowledge (r = 0.057, p > 0.05).

Table 1. Relationship of control variables and total media, print media and TV news channels consumption with political participation, political knowledge and civic engagement.

		Political Knowledge	Political Participation	Civic Engagement
Gender	Spearman Correlation	-.323[**]	-.201[**]	-.270[**]
	Sig. (2-tailed)	000	.002	000
Years of Education	Spearman Correlation	.242[**]	-.108	-.073
	Sig. (2-tailed)	000	.092	.255
Age	Pearson Correlation	.285[**]	-.155[*]	-.031
	Sig. (2-tailed)	000	.015	.633
TV News Channel Consumption	Pearson Correlation	.184[**]	.202[**]	.148[*]
	Sig. (2-tailed)	.004	.001	.020
Print Media Consumption	Pearson Correlation	.162[*]	.281[**]	.148[*]
	Sig. (2-tailed)	.011	.000	.020
Total Media Consumption	Pearson Correlation	.185[**]	.332[**]	.237[**]
	Sig. (2-tailed)	.004	.000	.000
Political Participation	Pearson Correlation	.057	1	.445[**]
	Sig. (2-tailed)	.374		.000
Civic Engagement	Pearson Correlation	-.033	.445[**]	1
	Sig. (2-tailed)	.602	.000	
Political Knowledge	Pearson Correlation	1	.057	-.033
	Sig. (2-tailed)		.374	.602

**. Correlation is significant at the 0.01 level (2- tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Correlation matrix shows a significant negative relationship of civic engagement with political knowledge (r = -0.033, p < 0.05). In this way our hypothesis H2 is partially proven as civic engagement and political participation are correlated but political knowledge does not have significant positive relationship with other two.

Table 2. Relationship between TV talk shows and intension of vote casting.

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.146[a]	10	.028
Likelihood Ratio	22.599	10	.012
Linear-by-Linear Association	5.460	1	.019

a. 6 cells (33.3%) have expected count less than 5. The minimum expected count is 1.00.

For further elaboration a Pearson chi square test (see Table 2) is performed on the viewership of TV news and TV Talk shows with intention to cast vote in any coming elections. TV news viewership does not show any

significant relationship but results reveal a significant relationship between viewership of TV talk shows and intension of youth to cast vote (Chi square value = 20.146, df = 10, p < 0.05).

Table 3 shows the matrix of hierarchical regression in which political participation is entered as dependent variable while independent variables are entered stepwise. In the model, years of education and political knowledge are not added because political participation is not found associated with both of these variables in correlation matrix.

In the first step, demographic variables age and gender are entered. In this step, R-square which is the proportion of variation in the dependent variable (political participation) that is explained by demographics is 7.7%. In second step civic engagement is included and R-square is 23.1% for this model. In the next step, print media consumption is added as independent variable and both TV and print media bring small change in R-square as it reaches to 28.2% now. The R-square now reaches to 28.7%, it is not a significant change brought in dependent variable on the part of TV news channels consumption but overall model brings a considerable change. While p < 0.001 at every step of the model explains that the model is fit to measure the relationship and it has accurately measured almost no change in political participation with regard to TV news channel consumption though both are strongly associated.

Table 3. Change in political participation.

No.	Model Political Participation (β)		Rsquare	T	Sig.	F	Sig.
1	(Constant)			14.934	.000	10.059	.000[a]
	Age	-.206		-3.032	.003		
	Gender	-.236	.076	-3.711	.000		
2	(Constant)			7.080	.000	24.265	.000[b]
	Age	-.175		-2.806	.005		
	Gender	-.124		-2.030	.043		
	Civic Engagement	.409	.231	6.981	.000		
3	(Constant)			6.954	.000	23.643	.000[c]
	Age	-.173		-3.167	.002		
	Gender	-.111		-1.955	. 052		
	Civic Engagement	.377		6.578	.000		
	Print Media Consumption	.228	.282	4.120	.000		
4	(Constant)			6.761	000	19.333	.000[d]
	Age	-.163		-3.089	.002		
	Gender	-.114		-2.027	.044		
	Civic Engagement	.367		6.386	.000		
	Print Media Consumption	.206		3.544	.000		
	TV News Channel Consumption	.079	.287	1.336	.183		

a. All requested variables entered.   b. Dependent Variable: Political Participation
a. Predictors in the Model: (Constant), Age, Gender
b. Predictors in the Model: (Constant), Age, Gender, Civic Engagement
c. Predictors in the Model: (Constant), Age, Gender, Civic Engagement, Print Media Consumption
d. Predictors in the Model: (Constant), Age, Gender, Civic Engagement, Print Media Consumption, TV News Channel Consumption

Individual beta scores reveal that consumption of TV news channels (β = 0.079, p > 0.001) is not a significant predictor of political participation while print media consumption (β = 0.228, p < 0.000) and civic engagement (β = 0.409, p < 0.001) are considerable predictors of dependent variable. In this way our hypothesis H3 is partially accepted because the percentage of variance explained by the independent variable is not equal to 60%. Besides these variables demographics also do not seem to bring any significant change in political participation. Though, age and gender are found to be associated with three of our constructs. It may be the limitation of data that role of demographics is not detected because samples is from universities of two urban cites, and in universities usually students are of same age group and with very less difference even in socioeconomic status.

4. Conclusion

Though, this study does not indicate, how far TV news channels are playing "virtuous" or vicious" roles while informing public, but it is concluded that youth who is watching TV news channels is somehow involved in political activity also. A positive correlation points out that watching both news and political talk shows more on TV channels will enhance the level of civic engagement and political participation both. It is also proven that people who are socially active with high level of civic engagement, they tend to have high level of political participation also.

As it is the limitation of survey method that collected data may have some inaccuracies on the part of reporting form the respondents. Therefore, it is difficult to analyze from the data, whether people who are active already they are watching TV news channels or after watching TV news channels they become more active. This study did not trace the cause and effect relationship of TV news channels consumption with political participation, political knowledge and civic engagement.

Another important underlying assumption of this study was that educated people watching more and more news channels will also be better informed with higher level of political knowledge. Most of the previous studies looking for the relation of media exposure with political knowledge has found positive correlation between two (Chaffee & Frank, 1996; Curren et al., 2014; Carpini & Keeter, 1996; Eveland, 2002; Junn, 1991; McLeod et al., 1999). In our study political knowledge is not correlated to any other construct including media consumption. Dahl (1979) considered the well informed citizens crucial for strengthening democratic tradition. Only people with political knowledge can weigh down the political situation, compare different candidate in electoral process, make informed decisions, and take active part in different activities other than voting. But it seems that in Pakistan without political knowledge people are being active in political activity.

So, TV news channels seem to have some positive effects as there is positive association between civic engagement and political participation. And though negative influence is not confirmed but having played no role towards increase in political knowledge is a shortcoming of TV news channels itself. As TV news channels may bring both kinds of effects on the audience so here the argument developed in a cross national study of 11 countries by Curren et al. (2014) can be reinforced that research on the effects of TV channels must come out of this "binary simplicity" of positive and negative effects as both stances are right in some way.

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Appendix A

Variables

Media consumption	Approximately how much do you use any of the following media as a source to get political information?
	a) Newspapers, b) Political Magazines, c) TV News, d) TV Talk Shows, e) Radio News, f) Internet.
	[Responses: Less than 1 hour per week (coded: 1), 1-3 hours per week (coded: 2), 3-5 hours per week (coded: 3), Approximately 1 hour per day (coded: 4), Approximately 2 to 3 hours per day (coded: 5), 3 or more hours per day (coded 6)]
Political Participation	Please indicate that how often you do the following activities?

	a) Participate in student societies, b) Discuss politics with friends and family, c) Share political content on Facebook/Twitter, d) Write letter to TV channel or TV anchor on political issue, e) Participate in political rally or event. [Responses: Never (coded: 1), Rarely (coded: 2), Once or twice a week (coded: 3), Daily (coded: 4)]
Vote Intent	Will you cast vote for any upcoming local bodies or national level elections?
	[Responses: Never (coded: 1), Not sure (coded: 2), Yes (coded: 3)]
Civic Engagement	Please indicate that how often you do the following activities?
	a) Play sports, b) Participate in religious activities, c) Donate or collect money for social cause, d) Volunteer for relief work, e) Participate in human right organization. [Responses: Never (coded: 1), Rarely (coded: 2), Once or twice a week (coded: 3), Daily (coded: 4)]
Political Knowledge	Select the appropriate answers of the following questions:
	a) Which political office is Abid Sher Ali holding?
	[Responses: Minister of Defence (coded: 0), Minister of Water & Power (coded: 1), Minister of Foreign Affairs (coded: 0)] b) Who is the chief justice of Pakistan? [Responses: Iftikhar Hussain Chaudary (coded: 0), Umer Ata Bandial (coded: 0), Nasir-ul-Mulk (coded: 1)] c) On violation of which article is Pervez Musharraf being tried for treason on charges of suspension of constitution? [Responses: Article 7 (coded: 0), Article 6 (coded: 1), Article 19 (coded: 0)] d) According to the constitution of Pakistan, which institution is supreme to make laws? [Responses: Council of Islamic Ideology (coded: 0), Supreme Court (coded: 0), National Assembly (coded: 1)]
Demographics	
Age	What is your age?
Gender	What is your gender?
	[Responses: Male (coded: 1) or Female (coded: 2)]
Year of Education	Indicate years of education you have completed.
	[Responses: 12-14 Years (coded: 1), 14-16 Years (coded: 2), 16-18 Years (coded: 3), Above 18 Years (coded: 4)]

Population Distribution Pattern of 76 Provinces in Thailand: Application of Factor Analysis

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Abstract

Thailand is in the demographic transition phase. The shape of population pyramid is shifting from stationary to contracting pattern. Age-sex distribution may vary by province. This study explores and describes the population distribution pattern of 76 provinces in Thailand using data from 2000 Thai population census. Factor analysis, a multivariate statistical method, was used to cluster provinces, based on pattern of age-sex distribution of the population. The study found three distinct patterns of population distribution in Thailand. Twenty-seven southern and northeastern region provinces, mainly bordering Myanmar, Cambodia or Malaysia, share the classical pattern of population distribution. The majority of central region provinces, and also Phuket from the south share a similar population distribution pattern which peaks at the young age group. So too, most of the northern region provinces share another pattern that dips at the young age group. In conclusion, this study found that population distribution is not symmetrical across Thailand. The factor model approximated well this variation and clustered the provinces in three patterns. The method applied in this study is straightforward and can be used in future demographic studies.

Keywords: factor analysis, multivariate, pattern, population distribution, province, Thailand

1. Introduction

Population is the function of key demographic variables that are fertility, mortality and migration. Population Reference Bureau defines population distribution as the patterns of settlement and dispersal of a population. It is an undeniable fact that developed and developing countries have different types of population distribution patterns (Cohen, 2003). Developing countries mainly have the classical pattern in which the number of children is high and the skew is towards young ages, whereas in developed countries the skew tends to be towards older ages (Abbasi-Shavazi, 2011). African countries, affected from HIV/AIDS epidemic, have dip among young age group (Zimmer, 2009). According to world population data sheet (2012), such differences may exist within a country. Even in United States, population change and age-sex structure varies widely within states.

In Thailand, fertility was high until 1970. Then it moved into a decline phase. After 1990 it was in a low fertility phase for 6-7 years. Now it is in the phase of 'below replacement' (Prasartkul, Patama, & Varachai, 2011). Mortality is also in a decreasing trend; infant mortality is decreasing at a slow pace. According to the CIA the World Factbook 2012, the current net migration rate is zero but the internal migration within the country, from rural province to urban and industrial province, always remained substantial (Thailand Migration Report, 2011; Guest et al., 1994). Similarly, the HIV epidemic in Thailand is yet another important event that affects the population distribution. It was estimated that the number of deaths from AIDS before the year 2000 was 550 000 (Surasiengsunk et al., 1998). AIDS was the leading cause of male deaths and the second leading cause of female deaths amounting to 16.5% and 6.3 % respectively, of total deaths in 1999 (Porapakkham et al., 2010). The provinces in Northern Thailand, adjacent to Myanmar and Laos, were greatly affected by this epidemic (Surasiengsunk et al., 1998).

As already mentioned in the first paragraph, the age - sex structure may vary within the country. There are 5 different regions and 76 provinces in Thailand. Each province is geographically different. Also, types of people, their religion, culture belief and health related practices are different. One can predict many differences in the pattern of population distribution in the different provinces in Thailand. One also can predict that some of these provinces may follow the same pattern. In order to find the evidence of the above predictions, this study applied a statistical method called "factor analysis". Factor analysis was invented more than 100 years ago by psychologist Charles Spearman (1904) and has been used, since, mostly in psychological studies. This method also has been applied widely in different areas, for example, the assessment of water quality (Liu, Kao, & Kuo, 2003), in ecological data (Rittibon, Tongkumchum, & Karntanut, 2012). There is a scope of using factor analysis in demographic research. Carey (1966) had also applied this method to interpret the population and housing pattern.

This study aimed to explore and describe the different patterns of population distribution in each province of Thailand by applying factor analysis. Evidence based information on patterns of population distribution is very important to plan and implement programs related to fertility, mortality and migration. Allocation of the different resources also depends on the population distribution in Thailand. After comparing the pattern of changes with the recent findings of the 2010 census, the researchers trust that the findings will provide fresh insight. Understanding the many details on the pattern of distribution will be helpful in future projections of population growth or decline in Thailand.

2. Methods

2.1 Data Source

The population data were retrieved from the website of National Statistical Office, Ministry of Information and Communication Technology, Thailand. The original data table contains 76 rows (provinces) and 36 columns (by 5 years interval age group and sex).

2.2 Statistical Methods

Factor analysis, a multivariate statistical method, was used to cluster the provinces, which were based on age-sex structure of the population. Since our objective was to cluster the provinces, they have to be considered as variables or outcomes so the original data table needs to be transposed. In this case there will be 76 columns (as outcomes) and 36 rows (as subjects) in the new table. Doing the factor analysis, the data table needs to have many more rows than columns. Therefore, we have to add more rows by extending the population into single-year age groups. For this purpose, the natural cubic spline was applied (McNeil, Odton & Ueranantasun, 2011). This method interpolated the data for single-year ages up to 105 of which 90 for each sex were used to create a data table with 76 columns and 180 rows for factor analysis. So the new data matrix has 76 columns corresponding to the provinces and 90 x 2 = 180 rows corresponding to a single year age population of males and females. We constructed 76*76 covariance matrix by using Spearman rank-order correlation method for handling non-linear relationships between province variables.

2.2.1 Factor Model and Factor Loadings

If y_{ij} is the outcome in row i and column j of the r x c matrix data array, the factor model is formulated as

$$y_{ij} = \mu_j + \sum_{k=1}^{p} \lambda_j^{(k)} f_i^{(k)} \tag{1}$$

Where, the p column vectors $f^{(k)}$ in this model are called common factors and the p row vectors $\lambda^{(k)}$ are called their loadings. The factor loadings obtained from factor analysis were used to determine the correlation between provinces and common factors.

2.2.2 Extraction of Factors and Factor Rotation

Factor analysis, in this study, used maximum likelihood method to extract the appropriate number of factors (Costello & Osborne, 2005). Three factors were remained based on the non-significant p-value (p>0.05) of Chi-squared test. To obtain a clearer pattern and interpretable result, the provisional factors were transformed in order to find the new factors that are easier to interpret. The factor rotation can be orthogonal or oblique. The varimax, quartimax, and equamax are commonly available orthogonal methods of rotation; direct oblimin, quartimin, and promax are oblique. The fit of the model is unchanged by rotating the factors (Johnson & Wichern, 1988). The only desirable element in selection of type of rotation is that the factor loading should be either close to zero or very different from zero, so that the result will be clear and interpretable (Manly, 1994). In this study, "Promax" rotation provided the clearer pattern.

The factor model also gives the "uniquenesses" corresponding to each province, for which values close to 1 provide evidence that they cannot be associated with any factor, and thus should be omitted from the factor model. In this study, the uniqueness ranges 0.005 to 0.060 so no evidence emerged to omit any province from the factor model. Therefore, all the variables (provinces) were included in the 3 factor model. The factor loading higher than 0.57 were considered as a significant level of a pure factor. For the variables (provinces) distributed into two or more factors, factor loadings between 0.33 - 0.56 were considered to indicate mixed factors. Data management and analysis was done by using R: A language and environment for statistical computing (R Core Team, 2013)

3. Results

The results of this study are organized in three different headings: loadings from factor analysis, interpretation of factors and regional variation in the population distribution patterns.

Table 1. Loadings obtained from three factor model for Thai province gender-age population at the 2000 census

| Provinces | | Factor 1 | Factor 2 | Factor 3 | Provinces | | Factor 1 | Factor 2 | Factor 3 |
Name	ID				Name	ID			
Pattani	94	**0.989**			Petchabun	67	**0.434**	0.125	**0.496**
Narathiwat	96	**0.989**			Nakhon Nayok	26	**0.382**	0.209	**0.458**
Mae Hong Son	58	**0.982**			Nong Khai	23	**0.362**	0.252	**0.437**
Yala	95	**0.977**			Loei	42	**0.343**	0.247	**0.468**
Tak	63	**0.974**			Bangkok	10	-0.112	**0.960**	0.151
Ubon Ratchathani	34	**0.973**			Samut Prakan	11		**0.940**	0.124
Buri Ram	31	**0.972**			Samut Sakhon	74		**0.927**	
Krabi	81	**0.950**	0.101		PathumThani	13		**0.926**	
Si Sa Ket	33	**0.946**		0.160	Chon Buri	20		**0.905**	
Satun	91	**0.939**	0.114		Ayutthaya	14	0.122	**0.872**	
Surin	32	**0.938**		0.162	Phuket	83	0.109	**0.868**	
Nakhon Phanom	48	**0.925**			Nakhon Pathom	73		**0.863**	
Roi Et	45	**0.902**		0.114	Rayong	21	0.161	**0.852**	
Amnat Charoen	37	**0.897**		0.171	Nontha Buri	12	-0.168	**0.849**	0.329
Mukdahan	49	**0.895**		0.103	Chachoengsao	24	0.250	**0.798**	
Yasothon	35	**0.885**		0.224	Saraburi	19		**0.759**	0.196
Nakhon Si Thamarat	80	**0.885**			Ratchaburi	70	0.154	**0.666**	0.219
Trang	92	**0.862**		0.129	Prachuap	77	0.284	**0.652**	0.102
Nong Bua Lam Phu	39	**0.858**	0.176		Phetchaburi	76	0.219	**0.586**	0.238
Phatthalung	93	**0.822**		0.162	Chanthaburi	22		**0.614**	**0.398**
Sa Kaeo	27	**0.820**	-0.108	0.312	Samut Songkharam	75		**0.588**	**0.401**
Phangnga	82	**0.773**		0.227	Chaing Mai	50	-0.168	**0.467**	**0.704**
Maha Sarakham	44	**0.702**	0.128	0.214	Lopburi	16	0.162	**0.372**	**0.504**
Kalasin	46	**0.702**	0.157	0.183	Lamphun	51	-0.201	**0.355**	**0.842**
Nakhon Ratchasima	30	**0.696**	0.108	0.240	Phrae	54			**0.993**
Kanchanaburi	71	**0.684**	0.192	0.162	Chai Nat	18			**0.934**
Khon Kaen	40	**0.573**	0.311	0.167	Phayao	56			**0.923**
Sakon Nakhon	47	**0.754**	**0.339**		Lampang	52		0.119	**0.922**
Nong Khai	43	**0.736**	**0.418**	-0.137	Sing Buri	17			**0.916**
Udon Thani	41	**0.669**	**0.463**	-0.107	Uttaradit	53		0.188	**0.865**
Songkhla	90	**0.616**	**0.509**	-0.113	Phichit	66	0.319	-0.170	**0.856**
Surat Thani	84	**0.524**	**0.489**		Chaing Rai	57		0.107	**0.823**
Ranong	85	**0.515**	**0.612**	-0.113	Sukhothai	64	0.120	0.104	**0.809**
Chumphon	86	**0.473**	**0.360**	0.219	Ang Thong	15	0.215		**0.763**
Prachin Buri	25	**0.352**	**0.555**	0.128	Nan	55	0.223		**0.742**
Chiyaphum	36	**0.635**		**0.372**	Nakhon Sawan	60	0.222	0.106	**0.718**
Kamphaeng Phet	62	**0.619**		**0.500**	Phitsanulok	65	0.158	0.243	**0.646**
Uthai Thani	61	**0.470**		**0.633**	Suphan Buri	72	0.266	0.175	**0.606**
				SS loadings			26.07	14.22	14.06
				Proportion Variance			0.34	0.19	0.19
				Cumulative Variance			0.34	0.53	0.72

Note: - Cutoff value is >0.33, single loading >0.33 is considered as pure factors and others are associated with mixed factor; Loadings below 0.1 are not shown and loadings that exceed 0.33 are in bold font

3.1 Loadings from Factor Analysis

Table 1 presents the factor loading of the 76 provinces of Thailand. This factor loading reflects the correlation between province variable and common factors. Three Factor model was best fitted (p>0.762) with the data and it explains 72% of the total provinces variation. Unique differences range from 0.005 to 0.060. Based on the cutoff value, the study found that 27, 15 and 14 provinces correlated purely to factor 1, 2 and 3 respectively. Twenty provinces were found to correlate with two factors. In this study, three different factors represent the 3 different patterns of population distribution which will be described in detail below.

3.2 Interpretation of Three Factors from the Model
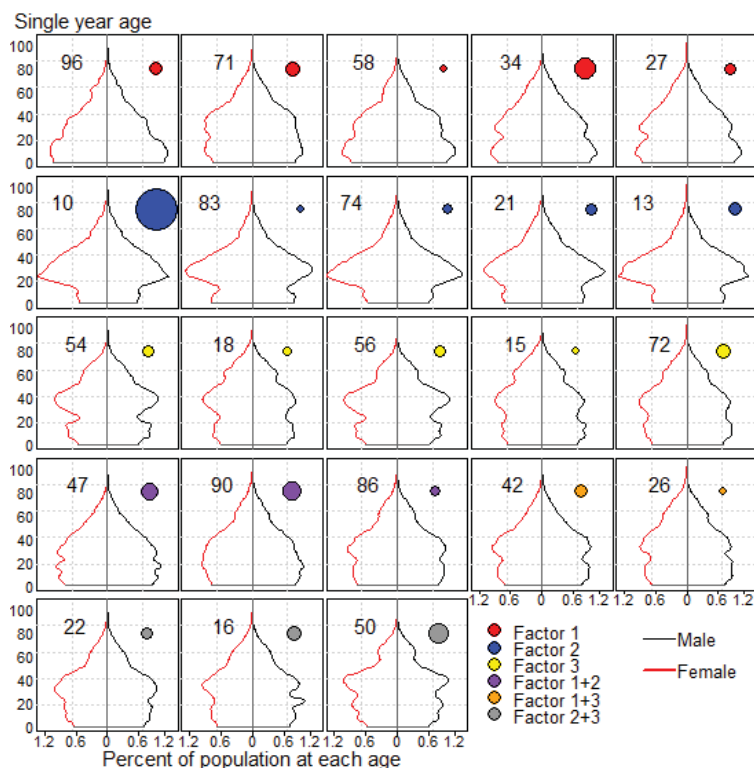
Figure 1. Spline-smoothed single year age and sex distribution from selected Thai provinces at 2000 Census
Note: The area of the bubble in each province denotes its population size
The integers at the top left of each graph indicates the province ID, full name is in Table 1

Figure 1 presents the Spline-smoothed population distribution by single year age and sex from selected Thai provinces based on the 2000 Census. Five representative graphs of the provinces associated purely with three factors and eight representative graphs of the provinces associated with mixed factors were selected and arranged in rows. The first factor, at the first row of the graph, shows a traditional pattern of population distribution characterized by a young age structure. In this pattern, each new cohort is larger, so the shape is like an exponential decay. The second factor, at the second row of the graph, shows the rapid declined of the population then leveled-off in the recent years. The third factor, at the third row of the graph, shows the fluctuating or complicated trends in the population distribution. This pattern includes the population dip between ages 20 and 40. It is interesting to note that the short decline at the beginning of the graphs shows that the fertility was starting to decrease yearly in some provinces, whereas the provinces associated with the second population distribution pattern had already leveled off followed by a rapid decline.

3.3 Regional Variation in the Population Distribution Pattern
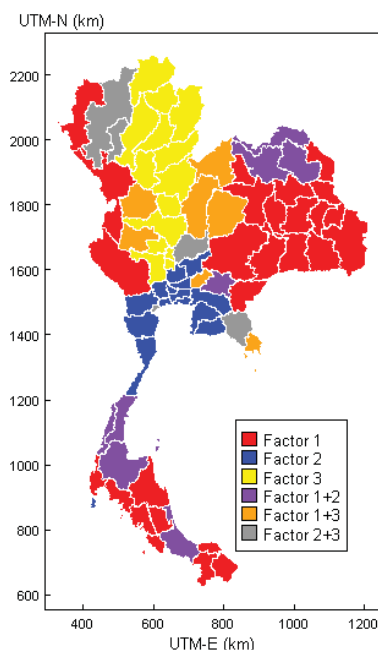
Figure 2. Thematic map of Thailand shows the regional variation in population distribution pattern in each province presented in colors from factor analysis of gender-age population at the 2000 census

Figure 2 shows the regional variation in population distribution pattern; denoted in six different colors from factor analysis. The majority of the provinces in the south and northeastern regions, mainly in the border provinces of Myanmar, Cambodia and Malaysia, shown in red color, have the same dominant traditional pattern of population distribution. The Bangkok and surrounding provinces share a similar pattern of distribution which was peaked and then stabilized, shown in blue color. The central plain, north of Bangkok contains the provinces with the third pattern, with substantial dips in the populations aged between 20 and 40.

4. Discussion

4.1 Application of Factor Analysis

Factor analysis, a multivariate statistical method, is well established and has been used widely (Costello & Osborne, 2005) not only for analyzing data from psychology, but also with data from different field, including water quality assessment (Liu, Kao, & Kuo, 2003; Lueangthuwapranit, Sampantarak, & Wongsai, 2011) and classification of the species of different birds (Rittibon, Tongkumchum, & Karntanut, 2012). The method is mainly used to group and describe the set of variables for further analysis. The factor analysis was also used as an intermediate analysis to determine a social-demographic poverty index (Latifa, Aswatini, & Romdiati, 2008). In this study, the factor analysis was used to model the variation in age-sex structure of the population. The factors were interpreted as patterns and further used as a basis for clustering provinces. Since this method clustered provinces very well, it is believed that this method will have potential wide application in the field of other scientific studies including population studies.

4.2 Patterns of Distribution

The single year age population distribution was found non-symmetrical in 76 provinces of Thailand. This study found three distinct patterns of population distribution. Each pattern has different characteristics of the distribution. The research brought up three principal issues on population distribution and related demographic factors; namely, fertility, mortality and migration.

The general fertility of Thailand has started to decline since the late 1960s. Now it is at the level of 'below replacement' (Prasartkul et al., 2011). The first issue, raised in this study, is why the majority of the bordering provinces in Southern and Eastern and Northern regions have a classical pattern of population distribution. The population in these provinces has recently begun to decrease, whereas the young age population is still high. This type of population distribution pattern is also called "a young age population structure" and will

probably experience further population growth (Abbasi-Shavazi, 2011). This finding is also supported by the findings of a year 2000 census related to the average size of the household in Thailand. The Northeast and the South had the largest average size of household. In the Thailand Census-2000, looking at all provinces, Pattani had the largest size of household (4.8 persons), followed by Narathiwat (4.6 persons). The question here is: why are the statistics of these provinces so different and not undergoing similar changes to the rest of the country of Thailand?

Another issue raised from this study is the peak and steep declining pattern. Most of the provinces of central Thailand, including Bangkok, follow the same pattern of population distribution. This might be because of the fast declining fertility rate and of the slow declining infant mortality rate. Fertility in Thailand has declined steadily over the last few decades. At around 1996 it fell below replacement level (Prasartkul et al., 2011). The reason behind the rise in the young adult population may also be due to internal migration from northern regions of the country, which now displays a gap in the population (25-35 years old), to these provinces where for the same age groups there is a peak in population distribution. Guest et al. (1994) found that migration is highly selective among young adults, females and highly educated adults, and more likely to occur in urban areas or in rural to urban areas. However, after 1990, internal migration rates have steadily declined compared to past statistics (Huguet, Chamratrithirong, & Richter, 2011), the population of municipal areas reached 41.1%; this was only 31.1% in 2000 and 29.4% in 1990 (National Statistical Office Thailand-2011). Thailand is considered to be an industrialized country (NESDB-2010).

The third issue is related to missing the young age population that shows by the dipping portion of the graph as a third pattern. It is interesting to note that such a type of dip is not usual and normal. However, this study is unable to explain the causes behind this issue, based on the literature. Anyone can assume that this can be because of mortality and migration functions of the population. Some part of the gap might be because of the internal migration (Guest et al., 1994) as discussed above and some part might be because of the HIV epidemic (Weniger et al., 1991). Most provinces in the Northern Region, adjacent to Myanmar and Laos have this pattern were affected by this epidemic (Surasiengsunk et al., 1998). AIDS was the first leading cause of death among males and the second leading cause of death among females; this accounted the 16.5% and 6.3 % respectively of total deaths in 1999.

5. Conclusions

While the population distribution in Thailand in 2000 was found to be varied a lot between provinces, the pattern in each province was approximated well by using a factor model. It is suggested that this detail and empirical information on population distribution, showing its changing patterns together, are very useful data for the planning and implementation of programs related to fertility, mortality and migration. Despite the fact that the data of this study is from the 2000 census, this study could be valuable in the understanding of past, present and possibly future population distribution trends. The method applied in this study, factor analysis, is straightforward and can be widely used in future demographic studies.

Acknowledgements

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Community Involvement in Urban Environmental Management System

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Abstract

The government of Malaysia has implemented various measures in the environmental management system, such as organizing an urban environmental management program. However, the environmental degradation problem in urban areas in the country is still alarming especially associated with the community engagement in protecting the urban environment. This study attempted to identify the level of community involvement in urban environmental management program in Malaysia based on 320 respondents. The results showed that the planning and enforcement activities by the community in the urban environmental management program were very low. In fact, the study also found that all the respondents in this survey did not execute their monitoring activities due to they assumed that the task should be undertaken by the government. The study concluded that contributing factors to the impairment of urban ecosystems in the study area is due to the vulnerability level of community involvement. Therefore, a better urban environmental management system is important to ensure higher community involvement in the urban environmental management program in strong collaboration with other concerned parties, especially the relevant government departments and the local authority.

Keywords: Community involvement, environmental studies, urban planning, community enforcement, community monitoring, urban pollution, Malaysia

1. Introduction

Community involvement in urban environmental management system covers various activities such as planning, enforcement and monitoring in collaboration with government, private and non-governmental organizations (NGOs). Community involvement in environmental management within the area of Kajang Municipal Council (MPKj), Selangor, Malaysia involving air quality care programs and urban river water is very important to determine whether the management system carried out by the current government really works. The government has implemented various measures in the environmental management system in an urban area such as organizing environmental program, but environmental degradation problems still occur and this is associated with the vulnerability of society to engage in the protection of the environment of the municipality. The obvious question is to what extent the level of community involvement in urban environmental management program should be.

Environmental impairment and in particular in the urban ecosystem is evident currently in the MPKj area as shown by research of the River Zone Conurbation of Cheras-Kajang-Bangi in the period 1974-2001 (Aiyub & Hasim, 2005). The study found that the Langat ecosystem started having problem of drastic changes since the 1980s that led to the contamination of drinking water quality and impact on ecosystem health. A study conducted by the Department of Environment also found a total of 150 industrial units operating around the Langat Basin and a total of 56 industries have violated standards of environmental pollution that can adversely affect the main source of water supply for the population in Klang Valley (Department of Environment [DOE], 2000). In fact, for Langat River it is at the average level with recorded contamination of Water Quality Index (WQI) up to 74 (DOE, 2007). Similarly, the DOE report also indicated that Langat River has remained at a moderate level contamination with WQI reading of 74 (DOE, 2008). This certainly shows that the contamination occurred in the MPKj reflects the current environmental management system including community involvement is still questionable.

Ecosystem deterioration in MPKj today is a crucial issue due to the increasingly robust development. Human involvement in the development based on daily activities, eventually contributed to the deterioration of the ecosystem such as air and water quality of the river. The local authority today face challenges of rapid urban development which is filled with a variety of human activities such as manufacturing, business and domestic. The urban ecosystem declines related to occurring disorder is the result of the interaction of human activities such as commerce, industry and domestic sector of the population in urban areas with the physical environment of a city (Carvalho & Fidelis, 2009). Man is an agent of change to the physical environment in line with the development of urban civilization in the context of an urban setting. In fact, in the context of development, people who use the input of energy, materials and technology to carry out daily activities in a city could create urban ecosystem deterioration intentionally or unintentionally (Jahi, 1996; Hussain & Ismail, 2013). Even everyday activities by human development in a town have created too much problems to the ecosystem despite the positive impact of the development (Hassan, Awang, & Jaafar, 2006; Pini, River, & McKenzie, 2007; Subhan, Ghani, & Joarder, 2014). The beneficial effects left by urban development such as an opportunity increase to quality of life, economic growth and physical development of urban city are certainly needed by society. While the adverse effects left by the development of urban ecosystems involved such as air and water pollution that would ultimately affect health, comfort and safety of city population.

Hence, human interaction within an urban space should be improved with more effective management system (Deason, 2009). Consideration has to be based on careful planning involving socio-economic factors, technology and ecology because of the inter-relatedness of these factors in determining urban social harmony (Fisch, 1982). Also, problems of urban ecosystems are due to the function of the city itself which normally use limitless of natural resources just to meet the needs of residents (Perman & Anand, 2000; Yang, Su, & Xu, 2006). Whatever the cause of deterioration of urban ecosystems, human behavior is actually the main identified cause as shown by low involvement in managing the urban environment (Rice, 2010). So, active community involvement is essential for the success of a management program prepared by the authorities on the environment.

Previous research has touched many issues related to the role of a private individual or society only in the care of the environment (Harrigan & Vogel, 2003; Petukhov, 2006). However, a study in the Hindu Kush, Himalaya found that urban ecosystem deterioration is caused by a failed management system and needs a high community involvement by all parties (Yang, Su, & Xu, 2006; Osti, 2004). In contrast, other researchers found that issues relating to the implementation of policy are the problem (Kyvelou & Filho, 2006; Lockwood, Davidson, Curtis, Stratford, & Griffith, 2009; Enserink & Koppenjan, 2007; Morrison, 2007). A study by Measham and Barnett (2008) also found that motivational issues are involved in the volunteerism for environmental management and motivation is related to volunteerism attitude and should exist and enhanced to reduce the impairment of urban ecosystem. Furthermore, studies by Larsen (2011) are characteristically institutional and he found that the government or city authorities failed to carry out the policy due to problems of ambiguity in the existing policy. However, his study did not focus on urban environmental management system alone, but more to environmental management in the context of Malaysia.

2. Study Area and Research Methods

MPKj is located in the western part of Pahang, southeast of Petaling District, northeast of Sepang and north of Negeri Sembilan with an area of approximately 226.8 hectares. Administrative area of the whole MPKj is 787.61 square kilometers (78 761 hectares) consisting of six mukims of Kajang, Semenyih, Hulu Semenyih, Beranang, Hulu Langat and Cheras. The MPKj total population in 1998 was 157 500 people and in 1999 the population increased to 232 250 people and in 2007 the population reached 653 793 people based on an annual growth rate of 4.2 per cent. The increase in population is driven by factors such as the effect of spill-over from the development of Kuala Lumpur and Klang Valley. The built-up area of the housing sector accounts for 7854.57 hectares of the total municipal area of 78 761 hectares in 2009. Statistics in 2007 showed that the main focus of the population in Kajang urban areas is Mukim Kajang, Cheras, Semenyih and Hulu Langat.

The sampling for this survey in MPKj area was performed using cluster sampling technique. As the population of the study area is huge and in various mukims as well as types of homes, so it's rather impossible for researchers to do random sampling of the population and to collect too many samples. Therefore, for the purposes of this study, cluster sampling was chosen because it can reduce the number of samples which is too large in such a wide area. For MPKj area, the total number of dwelling units including slum dwelling is 198 265 units of the residence population of 653 793 people. Sample selection process was started from the amount of residential dwelling types divided according to the cluster of bungalows, terraced, flat, Malay villages, Chinese villages, slum and shophouses which are important residential community. In fact, the distribution of clusters on a number of residential types is to ensure or assume that participants could represent the diversity level, class or

group of people in a particular location. At this stage, an important process done is to ensure that residential areas or residential dwelling are in accordance with the type prescribed in the study. After that, field visits were carried out to determine the study residential area and to calculate the number of residential units for the purpose of determining the sample size. During the field visits conducted by the researchers, only residential areas meeting the study specifications are selected as the basis of sampling. Although there are a number of residential areas, only one area was selected to represent that particular dwelling type assuming that respondent characteristics are homogenous. Therefore, this study has considered its study area based on the sampling distribution of the residential clusters in MPKj area as shown in Table 1.

Table 1. Total sample size in the study area

No.	Types of Dwellings	Name of Residential Area	Total Sample
1.	Bungalows	Phase 2, Bandar Baru Bangi	30
2.	Terraced	Section 3, Bandar Baru Bangi	120
3.	Flat	Phase 4, Bandar Baru Bangi	50
4.	Shophouses	Jalan Reko	30
5.	Malay Villages	Sungai Ramal Dalam	30
6.	Chinese Villages	Kampung Baru Semenyih	30
7.	Slum	Balakong	30
		Total:	320

Once researchers have identified the study areas and types of dwelling in the sample survey, proportionate sampling method was used to determine the size of the sample. This method is done by specifying the percentage of samples that must be taken which are not too small and not too large in size. Table 1 specifies the percentage of the sample and the size used in the study area. Then, the next process is to determine the number of samples using stratified sampling method. Further, the process of determining the residential units as a sample of respondents is by using the method of total housing units in residential areas specified divided by number of samples determined by using proportionate sampling. By this method, the researchers will acquire residential unit in interval for the sample of respondents. However, the residential units involved with this method of sampling will be used as sample with the head of household is the respondents. If the head of household consisting of head of the family or the husband is not available, the wife is instead of acting as a respondent. Similarly, if the units involved with sampling is unoccupied or not at home, then the next house is to be served as sampling unit respondent sampling unit.

This study set the minimum limit of a total of 30 sample respondents based on the opinion of most other researchers (Carver & Nash, 2005; Sekaran, 2003). The sample size of not less than 30 is very important actually to keep the quality of the data as the number of samples is generally capable of being analyzed using statistical tests. In fact, the whole sample is considered appropriate and adequate because it was not less than 10 percent (Dixon & Leach, 1978). The use the cluster technique is not a new thing as it was done by other researchers in various fields and aspects of the study.

Having clearly defined sampling process, the study is done using a set of questionnaire forms tailored to suit the type of analysis. All questions are designed based on the form of Likert scale from 1 to 5 (very low to very high). Analysis technique used is the statistical analysis of the correlation or Spearman correlation involving two variables, the independent and dependent variables with both characterized by an interval data or ratio (Carver & Nash, 2005; Md Nor, 2009). In this case, the correlation coefficient is an important indicator that reflects the strength of the relationship between the variables. The value of the correlation coefficient (P value) approaching +1.0 reflect a strong positive relationship between the two variables of the study. An increase in one variable affects the increase of the other variable. While if the coefficient is approaching -1.0 it indicates a stronger negative correlation (inverse) between the two variables.

For the purpose of predictive analysis, the studies use multivariate regression techniques. Basically, this technique uses a set of variables consisting of one dependent variable of either interval or ordinal data with two or more independent variables (predictor variables) also of the data interval, ordinal or categorical. The purpose of this analysis is to enable us to see the influence of the relationship between the independent variable on the dependent variables (Md Nor, 2009). Interpretation of the results of this analysis usually refers to the value of R^2 with the value getting closer to one reflects a stronger relationship between the dependent and independent variables. For example, if the analysis shows the relationship between the variables of $R^2 = 0.56$, then the relationship is at 56 percent. The significant degree for this analysis also bound to not more than 0.05 (P= 0.05).

However, the conditions for this analysis is the distribution of data is necessarily normal or almost normal condition by testing the K-S or S-W to ensure that there is not too much residual data.

Before the actual research is conducted, initial field study was conducted on 13 and 14 of May 2011 in the MPKj area by taking a sample of more than 30 respondents amounting to 50 samples to ensure that the pilot study and the survey sets are more reliable. Respondents consisted of five major types of residential bungalows, terraced, flat, house Malay and Chinese house with every type of residential is distributed with 10 samples. Preliminary studies are done to determine the reliability of the set of survey and test results found the Cronbach Alpha of 0.729 which demonstrates that the set of questions posed moderately high proportion and can be used for research (Md Nor, 2009). While in the distribution of data normality, the pilot study found the value of KS to be 0.745. This shows that the distribution of the data is normally distributed at medium range and inferential statistical tests such as those used in this study, namely Spearman Rho Correlation and Multivariate Regression can be accomplished.

3. Results and Discussion

3.1 Level of Community Involvement in Program Planning

To examine the level of community involvement in the context of urban environmental management planning, discussion is divided into a number of things such as the followings:

3.1.1 Level of Community Involvement in the Planning

Studies show that the level of community involvement in environmental management planning is still low thus leading to the existence of urban ecosystem deterioration issues. The proof, the study results show the environmental management program planning MPKj area is significant at a level of around 0.000 that is to say that community-level management does exist based on correlation analysis but, the relationship is very weak because regression analysis showed only 10 per cent of the strength of relationship (R^2 0.10). Thus, the pattern of involvement of the community to manage environmental planning in MPKj is showing weakness that led to the existence problem of deteriorating urban ecosystem.

3.1.2 Individual Program Planning in Environmental Management

The individual level of community involvement in urban environmental management planning is still low. The proof, correlation analysis in environmental management program planning within MPKj area is significant in particular effort in terms of "the use of unleaded fuel vehicles, plant trees, do not throw garbage into drains and drain cleaning for the purpose of avoiding mosquito or diseases". They are not going to do difficult activities such as "car-pooling, using public transportation and refining kitchen waste using grease traps". However, regression analysis also showed that there is a very weak relationships between 1 and 8 per cent based on the reading of R^2 .01 - .08. The problem of low level of involvement in the planning of environmental management by the individual for the MPKj could create impairment of the urban ecosystems. Whereas, in order to create a good urban ecosystem, high involvement of all parties are indispensable to any plan being implemented by the government to achieve success.

3.2 Community as Representative in the Policy-Making for Environment Management

In the context of the community as representative in decision-making about environmental management policy planning also seems less clear, which is still weak and this led to induced impairment of urban ecosystems. In general, the study found that respondents with high incomes in MPKj area and respondents with higher number of family members are more likely to be involved in the planning of environmental management at the policy level based on correlation analysis. However, urban environmental management planning among respondents as representatives in related policy-making is insignificant based on regression analysis. This shows that respondents' duties as representatives in policy planning are rather unclear or their level of involvement is still low based on the evidence of the correlation analysis where only total income and number of family members as policy planners are found to be significant.

3.3 Level of Community Involvement in the Enforcement Program

This section discusses the study results involving the participation of society in the enforcement activity of an environmental management system for the city of MPKj. Enforcement program in the urban environmental management is based on participation or actions taken by the community, private sectors and NGO in collaboration with the government to manage the environmental aspects of municipal waste, urban air and water quality of the river. This activity is fundamental in ensuring the legal enforcement system as a whole in managing the urban environment (Ismail, 2014; Hussain, Md Noor, & Ismail, 2014).

3.3.1 Involvement in Environmental Management Program Organized by the Government

In the context of community involvement, participation in urban environmental management program is very important because the active participation of this group could change the status of the environment of an urban area. In fact, the community has the power or effort that can determine the success of an environmental management system implemented by the city government. If society does not give a good involvement in the enforcement of the environmental management system of the city, then the ecosystem deterioration will occur on an on-going basis. Therefore, it is important that the awareness of the community to participate in any program be addressed by local authorities. However, the study found that community involvement in environmental management program hosted by the government does not exist based on the regression analysis of insignificant level at 0.05. However, there is a significant relationship based on the analysis of correlation between the community and participation in related governmental programs based on respondents' age and income, but the relationship is too weak as regression analysis showed no significant relationship of respondents with the program hosted by the government. These circumstances may be caused by the fact that there are only two variables of age and income that are significant. Weaknesses in the participation from the aspects of age and income are evidenced by regression analysis with R^2 values of around 6.8 to 7.0 percent.

3.3.2 Community Action in the Environmental Management Program Organized by the Government

In terms of community action in the environmental management program organized by the government is also very important concern as the government sponsored program will be a success if people are equally actively involved. In terms of community action in the environmental management program organized by the government also show there are problems associated with the low level of involvement. The correlation analysis showed that respondents MPKj areas do not take any action in the care of air and water quality. This situation is further strengthened through the regression analysis which showed that there is no significant relationship between respondents with caring for of air and water quality. Therefore, it can be concluded that the level of community involvement through their actions in the program organized by the government is low. This situation causes problems of maintenance of environmental quality such as air and water failed to be managed well by the government. Whereas, organizing a program involving the care of the environment is the most fundamental of an environmental management system involving the community with government departments. However, the community does not take action to support the programs organized by the government. This condition can cause environmental degradation of a city like MPKj area.

3.3.3 Community Action in the Environmental Management Program Organized by the Private Sector

Similarly, the community action program organized by the private sector show that there is the same problem as the program organized by government departments. Although government departments should be the most important agent in the success of environmental enforcement system to manage the city, but no doubt that the private sector also needs to play a role in supporting the efforts made by the government. For the purpose of caring for the environment and to show a sense of responsibility of the private sector, the environmental program implemented by these parties need to be supported by the community. The problem that occurs is a community failed to provide good cooperation to support the efforts made by the private sector. The study found that the respondents' action in the environmental management program organized by the private sector, there were only factors of number of family members and income that have significant relationship with the air and water care at the level of 0.000 for the MPKj. Thus, it can be concluded that the level of involvement of the respondent or society through support of private sector organizing program for the care of air and water quality is still low for the area. This situation actually led to a deterioration of the problem of the urban ecosystem if the effort by the private sector fails to inspire the community to take serious action or even not supported by the community at all.

3.3.4 Community Action in Managing the Environment Based on Individual Initiative

Community action to manage the urban environment, such as air and water quality based on individual initiative is also very important to be addressed at the micro level. This is because their movement towards creating a clean and healthy environment implies that the urban communities have high levels of awareness and concern about environmental quality care. If they fail to take action for the benefit of the environment, such as managing the self, then the degradation of the environment will occur, and thus defeats the enforcement system by the government. However, the study found that individual based initiatives in environmental management showed a significant correlation with age and number of family members at the level of 0.000. Although there is a relationship, but the regression analysis shows a weak relationship with around 5 to 15.4 percent of value R^2, but significant at the 0.05 level. Therefore, the whole aspect of community involvement in the enforcement of the environmental management system in MPKj urban areas is relatively low or weak based on the previous

discussions. The weaknesses involve the aspects of community action in the environmental management program organized by the government, private and individual initiative. Weak involvement of the respondents who are actually in the context of enforcement of environmental management system carried out by the government is able to thwart environmental policy at urban or country level. At the same time it also illustrates an urban society as vulnerable groups in the context of environmental management. This prompted an impairment of urban ecosystem and affects the quality of the environment such as air and water.

3.4 Level of Community Involvement in Monitoring Program

In addition, the level of community involvement is considered important in the framework of an urban environmental management system monitoring because without such community involvement in this matter, certainly environmental degradation problems still continues. However, the study found that monitoring problems still occur. This is due to the facts that all the respondents in the MPKj do not do their monitoring activity as they presume that the task should be undertaken by the government. This situation illustrates that the environmental management system of the city from the aspect of monitoring by the community is weak. This vulnerability actually encourages the ease to pollute the environment. If the whole the community can give full cooperation in the monitoring of the environment together with the government, the problem of environmental pollution is rare. Therefore, it can be said that the degradation of urban air and river water is closely associated with the failure of the society at large to monitor the urban environmental management system.

4. Conclusions

Therefore, based on the study it can be concluded that the level of community involvement in the MPKj area through urban environmental management program today, particularly to overcome the problem of deteriorating air quality aspects of urban ecosystems and river water is still low. Weakness of community involvement in the program as discussed above can be seen from the planning, monitoring and enforcement efforts in managing their environmental or urban residential areas. Regression analysis tested still showed very weak level of their involvement, although in many cases the correlation test conducted is still at significant levels. This indicates that urban ecosystem decline is due to the weakness of community involvement in urban environmental management program. This situation actually requires an environmental management system to ensure better community involvement in environmental management in conjunction with other parties, especially the relevant government departments such as the Local Authority. In fact, in line with previous studies it is also found that community involvement with other parties such as government, private sector and NGOs is essential to ensure that urban environmental management system can achieve success.

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Relationship of Psychosocial Safety Climate and Workplace Psychosocial Risks: A Randomized Trail among Personnel of an Oil and Gas Company in Iran

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Abstract

Oil and gas industry is a main revenue generation for Iran, and thousands of employees are involved in various oil and gas fields. From numerous health hazards which commonly occur in the industry one of them is psychosocial hazards. Studies confirmed a crucial step to control and understanding workplace psychosocial risk factors is developing and monitoring of policies, rules, and plans to promote health at work. This research conducted in an Iranian oil and gas company in Tehran in the period of 2011 and 2012. 248 participants were randomly selected and assigned in the study. Two questionnaires HSE and SCAT used in order to assess workplace psychosocial risks and attitude of personnel to safety climate. The result of HSE scores revealed relationships and role sub-scales in psychosocial risks were in abysmal situation. Personnel's attitude to safety climate at the organization displayed communication, priority of safety, and involvement were at the level of "dissatisfied". Also there was a medium positive correlation between work environment and managers' support, relationships and change $p<0.01$. These findings show that safety climate factors namely communication, work environment, supportive environment, inversely affects workplace psychosocial risks. Overall, the outcomes supported the possibility that personnel attitudes to safety climate at company were predictive of higher psychosocial risks. Progress in safety climate and the psychosocial aspects of safety climate may diminish the experience psychosocial risks. Development of policies and procedures with aim of reduce psychosocial risks should be considered in Iran.

Keywords: safety climate, psychosocial risk, oil and gas industry, HSE tool, SCAT tool

1. Introduction

Since 1920 oil and gas industry has become the main revenue generation for Iran (Mohamedi, 2011). National Iranian Oil Company (NIOC) reported thousands of employees are involved in various oil and gas fields (NIOC, 2012).

One of the high-risk occupations in terms of health, safety, and environment is working in the field of oil and gas industry. Numerous hazards which commonly occur in the industry involve chemicals (toxic, sensitising substances), physical concerns (noise, vibration), biological effects (food poisoning), ergonomic activities (manual handling methods), and psychosocial impacts (work overload, long working hours, work relationships) (Gardner, 2003). Psychosocial risks factors are "elements that impact employees' psychological responses to work and work conditions, potentially causing psychological health problems" (Samra, Gilbert, Shain, & Bilsker, 2009).

There are three different workplace situations in the oil and gas industry, including oil fields, laboratories, and offices, which expose employees to different health risks. Research findings show addressing and dealing with

psychosocial risks is a challenge for managers and occupational health and safety inspectors (Productivity Commission, 2010) (Johnstone, Quinlan, & McNamara, 2010). Studies found an essential step to control and understanding workplace psychosocial risk factors is developing and monitoring of policies, rules, and plans to promote health at work (Dollard, Skinner, Tuckey, & Bailey, 2007).

Research related to workplace psychosocial conditions in developing countries are not solid and organized (Kortum, Leka, & Cox, 2010). Identifying the magnitude of correlation between psychosocial risk factors, would provide stakeholders, government, management, health and safety professionals, and health personnel, an opportunity to address psychosocial risks appropriately and effectively.

Attitudes and perceptions of employees to the workplace makes safety climate (Carayon, 2007), and Psychosocial safety climate is policies, rules and procedures to protect worker from psychological health and safety problems in the organization (Dollard & Bakker, 2010).

There is significant evidence that psychosocial risks can lead to physical and mental disease (Cheng, Kawachi, Coakley, Schwartz, & Colditz, 2000; Cooper & Cartwright, 1994; Cooper & Sutherland, 1987; Kazi & Haslam, 2013; LaRocco, House, & French Jr., 1980; Leka & Jain, 2010; Portuné, 2012; Schmidt, Roesler, Kusserow, & Rau, 2014; Wang & Schmitz, 2011). (Choobineh, Movahed, Tabatabaie, & Kumashiro, 2010; HSE, 2008; Lee, Yeh, Chen, & Wang, 2005; Portuné, 2012).

Some models like the Palmer and Cooper model (2001), attempts to show a scientific association between psychosocial risk factors, perceived as demands, control, role, change, relationships, and support, with symptoms of stress in employees, to which the organisational culture also contributes to stress levels, all of which have negative outcomes.

Dollard and Bakker considered the PSC was an important organisational resource, which influenced demands and resources. The psychosocial safety climate model demonstrated that a lack of policies and procedures to contain work demands, could lead to work pressures and fatigue, and increase the necessity to hide emotions at the workplace. If employers do not pay attention to employee's concerns, or ignore psychological well-being at work, the effects would be detrimental (Dollard & Bakker, 2010).

Dollard predicted the psychosocial safety climate was an important factor in workplace mental health, and job resources, such as social support, performance feedback, and autonomy, may instigate a motivational process leading to job-related learning, work engagement, and organisational commitment (Dollard & Bakker, 2010).

Many scientific research findings suggest that psychosocial factors play an important role in the development of mental health problems (Chang et al., 2006; Chen, Wong, & Yu, 2009; Nomura, Nakao, Sato, Ishikawa, & Yano, 2007). Therefore psychosocial risks were recognised as an emerging occupational health and safety priority risk, by the European Commission's Strategy on Health and Safety at Work 2002 - 2006 (Dollard et al., 2007).

The result of a cross-sectional survey to measure the relationship of job stress and mental health in Chinese offshore oil platform workers, demonstrated a significant association between mental health problems and occupational stress. Generally, findings emphasise reducing occupational stress, to promote workplace mental health (Chen et al., 2009). Cooper and Sutherland studies have demonstrated that employees working offshore have more anxiety than the general population, and a predictor of anxiety in offshore workers was stress from work and home relationships (Chen et al., 2009; Cooper & Sutherland, 1987).

Research conducted in a thermal power plant in China about the effects on workers' well-being of job demands, control, and reward, found that employees who reported high levels of work demands and low levels of decision making, or high efforts and low rewards, raised the risk of job dissatisfaction, psychosomatic complaints, and depressive symptoms (Yu, Gu, Zhou, & Wang, 2008).

A study on occupational mental health among Caribbean nurses showed that role conflict, role overload, and social support, were related to stress and burnout. Burnout was the sole predictor of depression, which in turn was responsible for both absenteeism and loss of turnover (Baba, Galperin, & Lituchy, 1999). The 2003 study by Michie & Williams cited in (Dollard & McTernan, 2011), reviewed scientific papers written from 1987 to 1999 on work-related psychological ill-health in the health care sector and clarified that demands and low levels of control, decision making, social support, role conflicts, and unclear management, were the most significant stressors.

Studies in Europe found that the creation of new rule structures by occupational health services at the workplace, will reduce the difficulty of dealing with all aspects of occupational health risks (Cox, Leka, Ivanov, & Kortum, 2004).

Consequently, there is a necessity to enhance the skills of occupational health and safety personnel, so they know how to counter workplace psychosocial risk (Ylikoski, 2008). The involvement of employees plays a key role in preparing meaningful health programmes. The main elements of comprehensive health promotion at the workplace, lay a strong emphasis on psychosocial factors that affect workers' health, and the participation of employees in the process of identifying problems and developing suggestions for improvement (Aust & Ducki, 2004). The promotion and prevention programmes, will attempt to create a climate that fosters motivation and commitment, reduces obvious stressful agents, and promotes harmony among co-workers. Studies illustrate the importance of health education, in order to increase awareness of factors affecting mental health, well-being, and detecting risk factors (Harnois & Gabriel, 2000).

2. Method

Data and measure:

Research conducted in an oil and gas company which working in the field of Engineering Procumbent Construction (EPC) with 1,200 employees.

The sample was taken from all departments of the company in the period of 2011 and 2012. The Human Resources and Communications (HR & C) department delivered the list of employees in Microsoft Excel format that included updated demographic data.

The First inclusion criteria were Iranian. Then by age factor, employees under 25 years old age was filtered. Based on sample size formula 248 out of 714 were eligible. Questionnaires were a macro in Microsoft excel, which guide participants to use and fill the questionnaires.

An instrument was HSE management standards indicator tool developed by The Health and Safety Executive (HSE) of U.K. to evaluate psychosocial risks at the workplace. It contains 35 questions which specify how the respondent is performing in seven risks based on a five-point Likert scale. 23 questions responses are from never to always and 12 questions from strongly disagree to strongly agree. A lower score shows poor performance, or a potential problem area. The scores range from 1 to 5 (HSE, 2004). This questionnaire measures seven HSE risks at the workplace: Demands, Control, Managerial Support, Peer Support, Relationships, Role and Change.

Safety climate assessment tool (SCAT) was developed by Centre for Hazard and Risk Management at Loughborough University It measures staff responses across nine dimensions which are: Management commitment to safety, Communication, Priority of safety, Safety rules and procedures, Supportive environment, Involvement, Work environment, Personal priorities and need for safety, Personal appreciation of risk (Cox, & Cheyne 2000).

The questionnaire has 43 items. Questions 1–7 reflect the subscale of management commitment scale. Communication is indicated by questions 8-12, priority of safety (questions 13-16), safety rules and procedures (questions 17-19), supportive environment (questions 20-25), involvement (questions 26-28), personal priorities and need for safety (questions 29-33), personal appreciation of risk (questions 34-37), and work environment (questions 38-43). Each item was scored by giving a value of 5 to the 'strongly agree' category, 4 to the 'agree' response, 3 to the 'neither agree nor disagree' category, 2 to the 'disagree' response, and 1 to the 'strongly disagree' category. Six is the cut-off point to determine satisfaction of the employee (Loughborough University 1998)

Upon completion of the field survey and data collection (answers of two questionnaires), data were transferred from Microsoft Excel into IBM SPSS for statistical analysis. Statistical analyses were performed using IBM SPSS version 21 and Microsoft Excel 2010.

3. Result

According to inclusion and exclusion criteria, from 1193 staff, 714 were eligible and 248 personnel volunteered for research. 206 (83.1%) personnel completed questioners.

3.1 HSE Management Indicator

Seven risks measured by The HSE management indicator (Demands, Control, Managers' support, Peer support, Relationship, Role, and Change).

Result revealed Relationship and role displayed "Urgent action needed" with means of 3.48, and 4.36 respectively, while the mean scores for demands, control, managers' support, peer support and change indicated "clear need for improvement", with values of 3.10, 3.10, 3.17, 3.57, and 3.07 respectively.

Table 1. Socio-demographic characteristics

Variables	Total		Chi Square
	F	%	
Gender			
Female	89	43.2	0.032
Male	117	56.8	
Marital Status			
Married	139	67.5	0.006
Single	67	32.5	
Age			
<35	110	53.4	0.318
>35	96	46.6	
Department			
Staff	53	25.7	0.211
Operational	153	74.3	
Position			
Manager-Seniors	126	61.2	0.033
Officer-Eng.	80	38.8	
Education			
Under graduate	62	30.1	0.608
Graduate	144	69.9	
Years of Experiences			
<10	103	50.0	0.632
>10	103	50.0	
Nargan Experiences			
<10	157	76.2	0.37
>10	49	23.8	

Table 2. Means, Standard Deviation for HSE factors scores and distribution of employees by levels of action needed

HSE risk Sub-scales	Mean	SD	Urgent action needed		Clear need for improvement		Good, but need for improvement		Doing very well - need to maintain performance	
			F	%	F	%	F	%	F	%
Demands	3.1	0.67	91	44.2	50	24.3	50	24.3	15	7.3
Control	3.1	0.69	67	32.5	71	34.5	59	28.6	9	4.4
Managers' Support	3.17	0.7	69	33.5	105	51	29	14.1	3	1.5
Peer Support	3.57	0.67	79	38.3	53	25.7	63	30.6	11	5.3
Relationships	3.48*	0.79	113	54.9	47	22.8	36	17.5	10	4.9
Role	4.36*	0.53	111	53.9	60	29.1	-	-	35	17
Change	3.07	0.71	42	20.4	103	50	27	13.1	34	16.5

* Urgent action needed / - In the HSE manual there are no scores for section "Good, but need for improvement" in role scale.

The means and standard deviations for HSE factor scores discovered the dire conditions of two psychosocial risks that are relationships and role sub-scales. As table 2 shows, 54.9% were in "urgent action needed" level for relationships score and 53.9% were in "urgent action needed" level for role scale.

Table 3 shows result of the different levels of socio-demographic factors. Females had higher demands score than males (p=0.046). Those more than 35 years of age had higher peer support and change scores than those <35 (p=0.045 and p=0.002 respectively). Those in staff departments had higher relationships scores than those in operational departments (p=0.049). "Managers- seniors" had higher demands scores than those in "officers-engineers" position (p=0.009). Those with >10 years of experience had higher scores for peer support, relationships and change (p=0.0035, p=0.022 and p=0.031 respectively). Undergraduates had higher scores for relationships and role than graduate employees (p=0.012 and p=0.001 respectively).

Table 3. Mean scores for employees for each sub-scale compared across different socio-demographic factors

HSE-Socio-demographic			N	Mean	Std. Deviation	Std. Error Mean	P value
Gender	Female	Demands	89	3.21	0.676	0.072	0.046
	Male		117	3.02	0.659	0.061	
Age	≤35 years of old	Peer Support	110	3.48	0.687	0.066	0.045
	>35 years of old		96	3.67	0.645	0.066	
	≤35 years of old	Change	110	2.94	0.716	0.068	0.002
	>35 years of old		96	3.23	0.677	0.069	
Department	Staff	Relationships	53	3.67	0.835	0.115	0.049
	Operational		153	3.42	0.771	0.062	
Position	Managers-Seniors	Demands	126	3.2	0.68	0.061	0.009
	Officers-Engineers		80	2.95	0.633	0.071	
	Managers-Seniors	Change	126	2.99	0.714	0.064	0.036
	Officers-Engineers		80	3.2	0.695	0.078	
Years of experience	≤10 years of experience	Peer Support	103	3.47	0.689	0.068	0.035
	>10 years of experience		103	3.67	0.645	0.064	
	≤10 years of experience	Relationship	103	3.35	0.818	0.081	0.022
	>10 years of experience		103	3.61	0.75	0.074	
	≤10 years of experience	Change	103	2.97	0.676	0.067	0.031
	>10 years of experience		103	3.18	0.735	0.072	
Education level	Under graduate	Relationships	62	3.69	0.752	0.095	0.012
	Graduate		144	3.39	0.796	0.066	
	Under graduate	Role	62	4.54	0.413	0.052	0.001
	Graduate		144	4.29	0.562	0.047	

Generally, results shows many of the psychosocial risks specifically need to be improved.

3.2 Safety Climate Assessment Tool (SCAT)

Safety climate assessment tool (SCAT) measures satisfaction levels of employees in nine factors (management commitment, communication, priority of safety, safety rules and procedures, supportive environment, involvement, personal priorities and need for safety, personal appreciation of risk, and work environment). Management commitment, safety rules and procedures, supportive environment, personal priorities and need for safety, personal appreciation of risk, and work environment were at the level of "Satisfied" with means of 3.10, 3.10, 3.17, 3.57, and 3.07 respectively. Communication, priority of safety, and involvement were at the level of "Dissatisfied" with means of 5.86, 5.66 and 5.99 respectively.

Table 4. Means, Standard Deviations for SCAT scores

SCAT sub-scales	Min	Max	Mean	S.D.
Management Commitment	3	10	6.48	1.07
Communication	2	8	5.86*	0.75
Priority of Safety	4	10	5.66*	0.81
Safety Rules and Procedures	4	10	6.34	0.99
Supportive Environment	5	8	6.75	0.68
Involvement	3	9	5.99*	0.89
Personal Priorities and Need for Safety	4	10	7.33	1.16
Personal Appreciation of Risk	4	10	6.66	1.05
Work Environment	4	10	6.03	1.2

*. Dissatisfied level

Radar chart of means for SCAT (Figure 1), shows the "dissatisfied "levels of SCAT sub-scales compared to "satisfied" levels. From the index line (≥6), we can see clearly which components are under index line and which ones are above.

Table 5. Distribution of employees' satisfaction level for SCAT scores

SCAT Factors	Communication		Priority of safety		Involvement	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Dissatisfied	86	41.7	117	56.8	74	35.9
Satisfied	120	58.3	89	43.2	132	64.1
Total	206	100	206	100	206	100
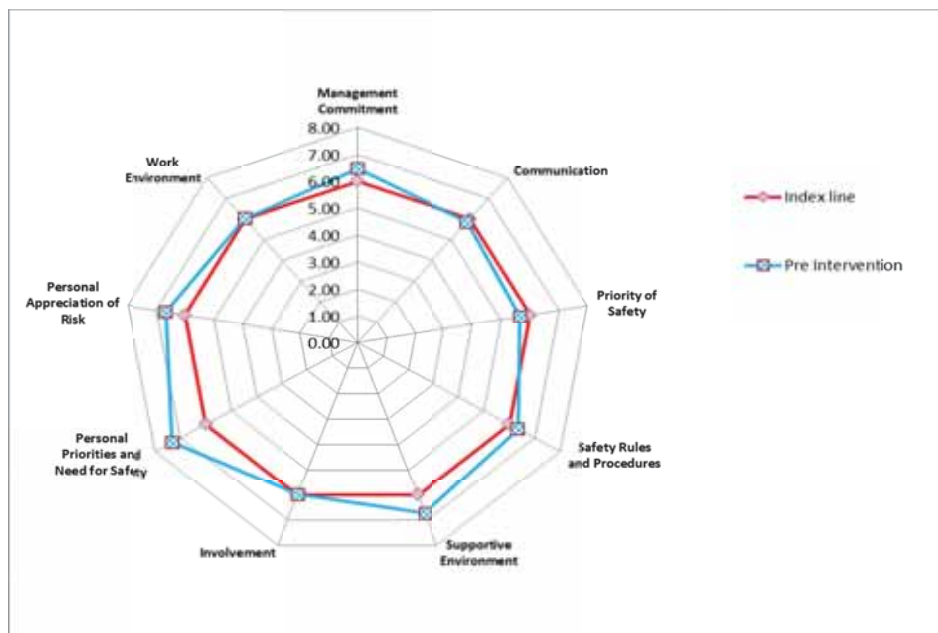
Figure 1. Radar chart of Means for SCAT

As table 5 shows for attitude of participants about safety climate in company showed that a high proportion of employees were dissatisfied with three safety climate factors, which are communication, priority of safety and involvement. Almost 42% participants were dissatisfied with communication in organization, and for Priority of safety factor almost 57% participants were dissatisfied, and 36% were dissatisfied with involvement in company.

Table 6 shows mean SCAT scores compared across different socio-demographic factors.

Table 6. SCAT - Socio-demographic

SCAT - Socio-demographic			N	Mean	Std. Deviation	Std. Error Mean	P value
Age	≤35 years of old	Management Commitment	110	6.32	1.003	0.096	0.027
	>35 years of old		96	6.65	1.128	0.115	
	≤35 years of old	Personal Priorities and Need for Safety	110	7.13	1.104	0.105	0.008
	>35 years of old		96	7.56	1.19	0.121	
	≤35 years of old	Work Environment	110	5.83	1.137	0.108	0.012
	>35 years of old		96	6.25	1.235	0.126	
Marital status	Married	Management Commitment	139	6.6	1.123	0.095	0.018
	Single		67	6.22	0.917	0.112	
	Married	Supportive Environment	139	6.82	0.625	0.053	0.028
	Single		67	6.6	0.756	0.092	
Department	Staff	Management Commitment	53	6.81	1.058	0.145	0.007
	Operational		153	6.36	1.057	0.085	
	Staff	Safety Rules and Procedures	53	6.7	1.033	0.142	0.002
	Operational		153	6.21	0.944	0.076	
	Staff	Personal Appreciation of Risk	53	6.38	1.1	0.151	0.022
	Operational		153	6.76	1.02	0.082	
	Staff	Work Environment	53	6.47	1.227	0.169	0.002
	Operational		153	5.87	1.155	0.093	
Years of experience	≤10 years of experience	Management Commitment	103	6.22	0.995	0.098	0.001
	>10 years of experience		103	6.73	1.093	0.108	
	≤10 years of experience	Personal Priorities and Need for Safety	103	7.16	1.133	0.112	0.035
	>10 years of experience		103	7.5	1.172	0.115	
	≤10 years of experience	Work Environment	103	5.78	1.118	0.11	0.003
	>10 years of experience		103	6.27	1.232	0.121	
Education level	Under graduate	Personal Priorities and Need for Safety	62	7.6	0.885	0.112	0.024
	Graduate		144	7.2	1.246	0.103	

3.3 HSE Factors and SCAT Factors

Table 7. HSE sub-scales and SCAT sub-scales

HSE-SCAT	Demands	Control	Managers Support	Peer Support	Relationships	Role	Change	Management Commitment	Communication	Priority of Safety	Safety Rules and Procedures	Supportive Environment	Involvement	Personal Priorities and Need for Safety	Personal appreciation of Risk	Work Environment
Demands	1	.210**	0.086	0.099	.185**	0.006	0.08	.266**	0.059	-0.038	0.083	-.216**	0.017	.204**	0.105	.447**
Control		1	.361**	.315**	0.053	.174*	.379**	.199**	0.106	-0.004	-0.001	0.015	.219**	0.033	0.05	.195**
Managers' Support			1	.487**	.290**	.202**	.570**	.367**	.207**	0.071	-0.094	0.117	.185**	0.062	0.122	.359**
Peer Support				1	.381**	.168*	.399**	.226**	.146*	0.088	-0.101	.144*	0.056	0.111	-0.002	.204**
Relationship					1	.195**	.332**	.317**	.297**	0.107	0.052	-0.009	0.032	0.072	0.013	.329**
Role						1	.429**	.157*	0.108	0.067	0.071	-0.049	.151*	.254**	0.058	.212**
Change							1	.349**	0.092	0.118	0.041	0.095	.313**	.172*	.189**	.343**
Management Commitment								1	.246**	.221*	0.042	-0.093	.301**	.260**	0.127	.544**
Communication									1	0.079	-0.017	-.283**	0.084	-0.059	-0.054	.174*
Priority of Safety										1	-0.024	-0.041	-0.034	-0.071	0.042	0.125
Safety Rules and Procedures											1	0.064	-0.028	.332**	0.046	0.132
Supportive Environment												1	-0.089	0.115	0.098	-0.132
Involvement													1	.173*	0.012	.186**
Personal Priorities and Need for Safety														1	.184**	.318**
Personal Appreciation of Risk															1	.311**
Work Environment																1

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

Table 7 shows that small positive correlations were found between Demands and SCAT sub-scales namely Management commitment, r = 0. 266, p<0.01, Personal Priorities and Need for Safety, r = 0. 204, p<0.01. Small negative correlations were seen between Demands and Supportive Environment, r = - 0. 216, p<0.01, and almost a large correlations were discovered between Demands and Work Environment, r = 0. 447, p<0.01,

Small positive correlations were found between Control and SCAT sub-scales: Management commitment, r = 0. 199, p<0.01, Involvement, r = 0. 219, p<0.01, Work Environment, r = 0. 195, p<0.01,

Small positive correlations were found between Managers' support and SCAT sub-scales: Communication, r = 0. 207, p<0.01, Involvement, r = 0. 185, p<0.01, Moderate positive correlations were found between Managers' support and: Management commitment, r = 0. 367, p<0.01, Work Environment, r = 0. 359, p<0.01,

Small positive correlations were found between Peer support and SCAT sub-scales: Management commitment, r = 0. 226, p<0.01, Communication, r = 0. 146, p<0.05, Work Environment, r = 0. 204, p<0.01,

Moderate positive correlations were found between Relationship and: Communication, r = 0. 297, p<0.01, Management commitment, r = 0. 317, p<0.01, Work Environment, r = 0. 329, p<0.01,

Small positive correlations were found between Role and SCAT sub-scales: Management commitment, r = 0. 157, p<0.05, Involvement, r = 0. 151, p<0.05, Personal Priorities and Need for Safety, r = 0. 254, p<0.01, Work Environment, r = 0. 212, p<0.01,

Small positive correlations were found between Change and SCAT sub-scales: Personal Priorities and Need for Safety, r = 0. 172, p<0.05, Personal Appreciation of Risk, r = 0. 189, p<0.01, Moderate positive correlations were found between Change and: Management commitment, r = 0. 349, p<0.01 Involvement, r = 0. 313, p<0.01Work Environment, r = 0. 343, p<0.01,

3.3.1 Effect of Safety Climate Factors on Psychosocial Risk Factors

The multiple linear regression shows that "Supportive environment" and "work environment" scores significantly and inversely affects demands scores (p=0.003, p=0.001) respectively. "Involvement" scores significantly and inversely affects control scores (p=0.014). "Management commitment"," Supportive environment", "Communication", and "Work environment" scores significantly and inversely affects manager's support scores (p=0.013, p=0.012, p=0.001, p=0.001 respectively).

Table 8. Multiple linear regression for HSE scores with SCAT sub-scales

HSE factors	SCAT sub-scales	B	Std. Error	Beta	t	p-value
Demand	Supportive Environment	-.194	.065	-.196	-2.977	0.003*
	Work Environment	.224	.044	.399	5.027	0.001*
Control	Involvement	.139	.056	.180	2.473	0.014*
Manager's support	Management Commitment	.129	.052	.198	2.502	0.013*
	Communication	.155	.062	.167	2.515	0.012*
	Supportive Environment	.249	.068	.241	3.674	0.001*
	Work Environment	.160	.046	.275	3.462	0.001*
Peer support	Communication	.134	.064	.150	2.106	0.036*
	Safety Rules and Procedures	-.112	.048	-.165	-2.337	0.020*
	Supportive Environment	.228	.070	.229	3.243	0.001*
	Work Environment	.094	.048	.168	1.969	0.05*
Relationships	Communication	.257	.073	.243	3.537	0.001*
	Work Environment	.169	.054	.255	3.098	0.002*
Role	Personal Priorities and Need for Safety	.105	.036	.229	2.918	0.004*
Change	Supportive Environment	.172	.070	.163	2.450	0.015*
	Involvement	.197	.053	.245	3.691	0.001*
	Work Environment	.115	.048	.194	2.408	0.017*

"Communication", "safety rules and procedures" supportive environment", and "work environment" scores significantly and inversely affects peer support scores (p=0.036, p=0.020, p=0.001, p=0.05 respectively). "Management commitment and "Work environment" scores significantly and inversely affects relationships scores (p=0.001, p=0.002 respectively). "Personal priority and need for safety" scores significantly and inversely affects role scores (p=0.004). "Supportive environment", "involvement", and "work environment" scores significantly and inversely affects change scores (p=0.015, p=0.001, p=0.017 respectively). (Table 8)

3.3.2 Effect of Psychosocial Risk Factors on Safety Climate

Table 9. Multiple linear regression for safety

SCAT Factors	HSE sub-scales	B	Std. Error	Beta	t	p-value
Management commitment	Demands	.322	.103	.202	3.124	.002
	Manager's Support	.341	.125	.222	2.728	.007
	Relationships	.238	.096	.176	2.482	.014
Communication	Manager's Support	.197	.094	.183	2.094	.038
	Relationships	.276	.072	.291	3.817	.001
Supportive environment	Demands	-.231	.071	-.230	-3.250	.001
Involvement	Change	.367	.114	.294	3.210	.002
Personal Priorities and Need for Safety	Demands	.386	.120	.223	3.208	.002
	Role	.507	.162	.233	3.135	.002
work environment	Demands	.712	.106	.399	6.706	.000
	Relationships	.234	.099	.155	2.374	.019

3.4 Climate Scores with HSE Sub-Scales

The multiple linear regression shows that "demand", "manager's support" and "relationships" scores significantly and inversely affects management commitment scores (p=0.002, p=0.007, and 0.014 respectively). "Manager's support" and "relationships" scores significantly and inversely affects communication scores (p=0.037, and 0.001 respectively). "Demands" scores significantly and inversely affects supportive environment scores (p=0.001). "Change" scores significantly and inversely affects involvement scores (p=0.002). "Demands" and "role" scores significantly and inversely affects personal priorities and need for safety scores (p=0.002). "Demands" and "relationships" scores significantly and inversely affects work environment (p=0.001 and p=0.019 respectively) (Table 9).

4. Discussion

4.1 Workplace Psychosocial Risk Factors using the HSE Management Standards Indicator Tool

The HSE Management Standards Indicator Tool has two levels which describe acceptable conditions (Doing very well: need to maintain performance; and Good: but needs improvement). The other two levels signified a dangerous and unacceptable degree of risk in the workplace (Clear: need for improvement; and Urgent: action required).

The results showed that "relationships" and "role" factor needed urgent attention to recover. There are numerous reasons that are connected to disappointing relationships at work. One possible explanation is that because job security effect on relationships (Landsbergis, Grzywacz, & LaMontage, 2012), while unemployment rate is high in Iran(around 11.5% in 2011) (Press.TV, 2012). Therefore the anxiety of having stability of employment for work life may cause workers allow unkind behaviours. Also a workplace environment without trust could set relationships in trouble (Cooper & Cartwright, 1994).

Ineffective communication, impact low relationship at workplace (Fairhurst, 1993; Fairhurst & Chandler, 1989; Sias, 2005). "Communication factor," in current research was at a level dissatisfaction and may lead to increase psychosocial risk.

Although most previous studies focused on demand and control as psychosocial risks at the workplace but reviewing studies of Schuster, Kessler & Aseltine (1990), and Spector and Jex's study in 1998, as cited in (Inoue & Kawakami, 2010), and (Fujiwara, Tsukishima, Tsutsumi, Kawakami, & Kishi, 2003; Tsuno et al., 2009) found relationships is an strong factor on predicting stress in the workplace whereas there is a paucity of study about workplace relationships.

The "role" factor was another psychosocial risk in current research, it showed duties in the workplace are not quite clear and should be developed. The correlation between "relationships" and "role" (r=0.195, p<0.01), pointed that clear roles will recover relationships. Deficiency of clarity in roles may affect an workplace's relationship by producing conflict among employees (Pomaki, Supeli, & Verhoeven, 2007; Saijo, Ueno, & Hashimoto, 2008).

In general, the result of this research was in-line with other researches, that underlined the necessity of improvement in workplace psychosocial risk factors specifically relationships (Fairhurst, 1993; Fairhurst & Chandler, 1989; Sias, 2005).

4.2 Prevalence of Workplace Safety Climate Using the Safety Climate Assessment Tool (SCAT)

Excluding "communication, priority of safety and involvement" factors, it was found that participants were satisfied with and had a positive attitude to other safety climate factors (management commitment, safety rules and procedures, supportive environment, personal priorities, need for safety, personal appreciation of risk and work environment). A low score (<6) for "communication" was reported in 41.7% of participants, which indicated communication between employees and managers was unsatisfactory; especially in regards to safety issues. It was discovered that managers were neither committed to bring safety information to the attention of personnel, nor to inform them of current concerns and issues within the workplace. In addition, employees did not receive praise for working safely.

Cohen et al. (1975), Smith et al. (1975) and Shannon et al. (1997) were in agreement that one important key factor that effected lower accident rates and safety performances was good communication between management and employees; whereby, supervisors gave information to workers regarding safety issues (Mearns, Whitaker, & Flin, 2003). Therefore, when utilising the behavioural approach regarding safety within the workplace, workers were motivated to behave in a safe manner. An example would be when employees received praise for acting in a safe manner (Cox, Jones, & Rycraft, 2004).

The results of this research reflected on how relationships and role scores, as workplace psychosocial risk factors, were connected and related to safety climate factors. A moderate, positive and significant correlation between the relationship score and the communication factor (r=0.297, p<0.01) indicated that communication was related to interpersonal relationships. When employees' relationships were not exceptional, communication was unlikely to be at a satisfactory level.

A study proved that enhanced communication within work environments was linked to a decline in workplace violence; moreover, communication problems within the workplace resulted in unpleasant relationships (Hinkka, Kuoppala, Väänänen-Tomppo, & Lamminpää, 2013). Enhanced communication in an organisation allowed the

transmission of information and the interaction between employees to be managed easily (Peiró Silla, 2000). Therefore, communication affected relationships among subordinates and supervisors.

Dissatisfaction with the priority of the safety factor was expressed by 56.8% of participants. This implied that the management clearly considered the safety of employees as unimportant, and safety issues were not a high priority. Safety procedures were not carefully followed and the management did not consider safety to be of equal importance as the success of company projects.

A company with an excellent safety climate would allocate their highest priority to safety. Geller (1994) demonstrated few essential principles when practicing an enhanced safety climate, for example: involving employees in devising safety rules; using a behaviour-based approach within the company; employers focusing on achieving success and not on avoiding failure; employers paying attention to employees' self-esteem and empowering safety as a priority rather than a value (Choudhry, Fang, & Mohamed, 2007). Employers should involve employees in appraising the calculation of safety within the organisation (Zohar & Luria, 2003).

Managers should base their actions on safety rules, since the absence of such rules may lead employees to perceive the company as having a low safety priority. In addition, managers must recognise which safety issues should be of high priority and what behaviours are expected to be rewarded and reinforced. Zohar, as the founder of safety climates, explained that if output was more important than safety, employees will align their deeds in accordance to the detriment of safety (Zohar, 2010).

This study revealed that involvement was also at an unsatisfactory level, which played an important role in the workplace. Of the respondents, 35.9% were dissatisfied with the involvement factor in the company. It illustrated that those respondents were not involved in important safety issues at work and were not involved in the on-going review of safety.

Flin et al. (1996) confirmed the need to consider involvement of employees in safety-related decisions as a vital role on safety performance (Cox & Cheyne, 2000). Involvement is a behavioural-approach that allows employees to be part of the decision-making process; this empowers workers by providing them with the responsibility of making vital decisions in setting goals (Vredenburgh, 2002).

A Finnish study Vartia (1996) discussed the scenario where managers or supervisors tended to solve conflicts in their own authoritarian way, causing a poor safety climate and promoting workplace bullying. Based on the reactance theory (e.g., Brehm & Brehm, 1981), when workers felt supervisors or managers were unsupportive, they tend to not practice (or to resist) safety behaviours and rules in order to "get back" at the management (Kelloway & Barling, 2010). Therefore, when employees believed that they had no voice when it came to the workplace's safety policies, they developed a sense of indifference.

Other studies revealed that when the management intended to make a decision which was related to personnel by listening (Singer & Obach, 2013) and engaging personnel in the decision-making as 'a key role of involvement in the workplace', a positive association with employee motivation and psychological well-being was present (Felstead, Gallie, Green, & Zhou, 2010). This research also discovered a positive correlation between role and involvement ($r=0.151$, $p<0.05$). Involvement, collaboration and safety management were also factors of the safety climate (Hřivik, Tharaldsen, Baste, & Moen, 2009).

The results displayed a correlation between work environment scores of the safety climate scale and relationship scores of the HSE scale. The relationship scores had a moderately positive, significant connection with the work environment factor ($r=0.329$, $p<0.01$). Safety climate played an essential role to improve psychosocial risks in the workplace. A Norwegian study demonstrated that bullying and harassment were associated with the social environment at work (Einarsen, 2000). When there was a poor work environment and a weak management style, there was a significant expectation of increased bullying (Agervold & Mikkelsen, 2004; Einarsen, Raknes, & Matthiesen, 1994; Salin & Hoel, 2011). However, a satisfied attitude with the work environment contributed to high levels of a psychosocial safety climate. In the absence of psychological health and safety within a workplace, high rates of bullying and harassment were observed, which in turn, reduced the relationship scores (Salin, 2003).

When reviewing the mental health aspect of a safety climate in a workplace, a study on the occupational safety climate demonstrated that poor communication was a predictor of depressive symptoms (Cho et al., 2008). A small, yet significant, negative relationship between depression associated with personal priorities and the need for safety ($p<0.01$) with the work environment ($p<0.05$) was found. Improvements in the work environment may decrease the risk of depression symptoms (Wang, Schmitz, Dewa, & Stansfeld, 2009). A study revealed that about 8% of depression may be explained by environmental factors in the workplace (Prüss-Üstün & Corvalán).

Williamson (2001) and Stansfeld and Candy (2006) found that if health and safety procedures were properly conducted, they may help identify work-related stress and recognise certain personnel groups that were more susceptible to stress. In addition, the psychosocial work environment models, such as Cox, Griffiths, and Rial-Gonzalwz (2000) and Dollard and Bakker (2010), illustrated that the psychosocial safety climate may affect mental health status.

A study by Hofmann and Stetzer (1996) regarding chemical processing workers discovered a positive relationship between workplace psychosocial risks and unsafe practices within the workplace. A study in China also presented an association between the organisational climate and job satisfaction in workers (Siu, Phillips, & Leung, 2004). In accordance with the current research, a study on workers of oil and gas companies detected that the common stressor among employees and managers was poor communication. They concluded that good communication in the workplace may protect employees from the dangerous effects of further stressors, and this would contribute to improved safety (Brešić et al., 2007).

4.3 Relationship between SCAT and HSE

The results illustrated that psychosocial risk factors (HSE subscales) were positively related to workplace safety climate. Management commitment and work environment subscales of the safety climate were related to all HSE subscales. A large correlation was seen between work environment with demands ($r=0.447$), managers' support ($r=0.359$), relationships ($r=0.329$), role ($r=0.212$) and change ($r=0.343$, $p<0.01$).

The results displayed a significant relationship between some psychosocial subscales and safety climate subscales in the company. It revealed that safety climate factors may influence psychosocial risks in the workplace and vice versa. Psychosocial risk factors, specifically demands, manager's support and relationships, influenced the attitude of employees in regards to the safety climate; especially for management commitment, communication and work environment.

The mitigation of workplace psychosocial risk factors is an important reason to develop health and safety policies to monitor the work environment; leading to the promotion of workplace mental health (Dollard et al., 2007; M. Dollard, Skinner, Tuckey, & Bailey, 2007).

From a theoretical standpoint, Kahn and Byosiere (1992) proposed that work environment characteristics had an influence on producing role conflict in the workplace (Pomaki et al., 2007). Along these lines, a study found that psychological risks (such as high demand) may increase unsafe behaviour within the workplace (Siu et al., 2004).

A study in safety climate and supervisory behaviour demonstrated that if supervisors were not concerned about safety while they were interacting with subordinates, workers would not follow safely rules. They further found that supervisor's support of subordinates increased safety climate scores (Zohar & Luria, 2003).

The results of the current research were in-line with another study that portrayed the lack of safety climate policies (or procedures that target improving job demands) tend to prevail for long periods within the workplace. A consequence of the lack of procedures to report work overload led to increased conflicts and relationship problems; especially when employees' concerns were not adhered to, or the importance of psychological well-being was not recognised (Dollard & Bakker, 2010). Therefore, an enhanced safety climate aided employees to better cope with their job demands and relationships by the development of appropriate strategies.

PSC model indicated that the psychosocial safety climate and communication affected the psychosocial risks in the workplace. Recent studies confirmed that the psychosocial safety climate was able to clarify the roots of demand, supervisor's support, justice and other job resources (Dollard & McTernan, 2011; Rickard et al., 2012). In addition, it was found that a positive psychosocial safety climate may control workplace bullying and harassment. It was clarified that a positive psychosocial safety climate may be a leading indicator for bullying, harassment, job resources and psychological health (Law, Dollard, Tuckey, & Dormann, 2011).

Overall, this study supported other research findings. It confirmed that the positive attitude of employees to safety climate factors was closely linked to the HSE factors in the workplace. If the management had a commitment to health and safety procedures and safety rules, it can attain a potentially positively impact on psychosocial risks.

5. Conclusion

Overall, the need of policies about psychosocial risks and psychosocial safety climate to guide employers to promote health is concerning. Ethical policies for supporting proper workplace relationships may contribute to low level score of psychosocial risks at work. The study supported the possibility that employees' attitude to

safety climate was correlated to psychosocial risks at the workplace. Employers should pay more attention to relationship role and communication factors. Safety climate factors may impact psychosocial risks in the workplace and vice versa.

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Orphanhood and Living Arrangements of Children in Nepal

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Abstract

Children's living arrangement plays a crucial role on their physical, emotional as well as social development. This study aimed to examine the living arrangement of children (both orphan & non-orphan) based on a nationally representative Nepal Demographic and Health Survey (NDHS) 2006 and 2011. This study used total sample of 0-17 years children consist of 19 935 and 20 808 respectively in 2006 and 2011 survey. The survey package in statistical software R was used to analyze the data. Chi-square test and logistic regression model were employed as statistical tools. Of the total children, 5% (95% CI, 4.7-6.0) in 2006 and 5.3% (95% CI, 4.5-5.5) in 2011were orphans. The number of paternal orphans almost doubled the number of maternal orphans in both surveys. Furthermore, approximately 7% (95% CI, 6.2-8.1) of the children lived apart from their biological parents in both surveys. This study also found that about one quarter of the children, representing 23.5% (95% CI, 21.4-25.7) in 2006 and 28.7% (95% CI, 26.8-30.6) in 2011 were living only with their biological mother. The multivariate analysis found that orphans were more likely to reside in poorest households, in households having no or unrelated adult, in female headed and more than50 year age group headed households. In conclusion, the proportion of children living with both parents had slightly decreased, whereas those living with mother had slightly increased over the time. The living arrangement in relation to household level characteristics between orphans and non-orphans was significantly varied.

Keywords: biological parent, DHS, living arrangement, Nepal, orphanhood, survey

1. Introduction

Family living arrangements greatly affects one's personal life. Living arrangements can be characterized by parental residence, marital status and the presence or absence of extended family members, including grandparents, other relatives, or non-relatives in the household (Landale, Thomas, & Van Hook, 2011). Children's living arrangements have a greater role in their physical, social and emotional health and development, as they fully depend on their families. An ideal living arrangement for a child consists of living with both biological parents. A recent survey conducted by Lippman, Wilcox, & Ryberg (2013) in 45 countries around the globe concluded that more than 80% of adults believe that the ideal living arrangements for a child is to have a mother and a father at home. Numerous studies have suggested that parents play an important role in the healthy growth and development of children. Children who grow and reside with the biological parents have demonstrated self-control behavior like; non- aggressive, self-confident, positive attitude and have less emotional or behavioural problems in comparison to those who live with their non-biological parents (Paul, 2005; Rosenberg, & Wilcox, 2006; UNICEF Office of Research, 2013). Furthermore, the study conducted by Lippman et al. (2013) also underscored that the children living with the parents are more likely to achieve better results academically, including good literacy skills as these parents help the children and encourage study habits which contribute to their success in their studies and future careers. Not only do two-parent families fare better economically than single-parent families, but also children living with both biological parents are less likely to experience a range of cognitive, emotional, and social problems that have long-term consequences for their well-being (Paul, 2005). Thus, the living arrangement is key to children's overall growth and development.

If the parents separated or divorced, or if one or both parents deceased, as a result, the child's living arrangement will substantially change. It is all determined by the local culture, decision of immediate parent,

recommendations from relatives and well-wishers like: close neighbors, distance relatives. These decisions have been based on traditions, beliefs, plan and practice on raising the children after one or both parents die. If the law is legitimate and implement well then the law also determined for the new living arrangements of the children (Kelly, 2006). It is an extremely essential to learn living arrangements of children to address their necessitates, troubles and fulfill their urgent needs, especially the children who are needy and under the care of the child headed households as they likely have limited sources and less excess on economic resources (Hill, Hosegood, & Newell, 2008; Kipp, Arif Alibhai, & Rubaale, 2010). It is also an important that parents and their children utilize social and economic resources together.

There have been numerous studies of living arrangements of children in developed countries. Several studies were conducted in the African countries where HIV/AIDS became an epidemic and millions of young adults, parents have deceased, to assess the children living arrangements and take necessary actions to assist and prevent the children from and to be measurable situation. In the context of Nepal, family structure has been changing from the extended family to nuclear family, urban population is increasing, (Ghimire & Axinn, 2006) and thousands of children became orphaned as a result of a decade long political turmoil (Joshi, 2008; Sing, Dahal, & Mills, 2005). However, the researchers, in their best search, could not find any scientific studies that conducted focusing on the living arrangement of children in Nepal except DHS survey and population census (NDHS, 2006; NDHS, 2011; Central Bureau of Statistics, 2012). Although the primary purpose of demographic and health survey was not the orphanhood and living arrangement, some questions were included related to this issue in 2006 and 2011 and presented only descriptive findings in the final report. There is only little known in this area from these reports. Hence, this study further analyzed DHS data by using advanced statistical method to expand this information.

This analysis aims to examine the different aspects of children's living arrangements in Nepal. Different aspects include living with biological parents, single biological parent and neither parent by their orphan status. In case of children living with neither parent, the relationship to the head of household was examined. The variation in living arrangement between orphans and non-orphans were investigated by using household level characteristics. The main body of the discussion focuses on different aspects of living arrangement and child welfare.

2. Methods

2.1 Data, Sample Size and Sampling Method

This study analyzed data from the Demographic and Health Survey (DHS) conducted in 2006 and 2011. Both surveys used two stage stratified cluster sampling method to select nationally representative samples of the households. The surveys collected the personal detail of all the members, including parent's survival status and living arrangements of all the children 0-17 years residing in the households. Thus, our sample was drawn as a subset of 0-17 year's children from individual records of all the household members. Since, the institutional household like orphanages or child care homes were not included in the survey, our sample is representative for all the children throughout the country reside only in the households. The total sample of 0-17 years children consist of 19 935 and 20 808 respectively in 2006 and 2011 survey.

2.2 Defining Variables under Study

In this study, a child is defined as a person aged 0-17 years. There were few children whose parent's survival status was reported to be "missing" only in 2006 survey and "do not know" in both 2006 and 2011 surveys. The children whose parent's survival status was reported as "do not know" were included in the analysis, but excluded those whose information was "missing". Orphan status of the children is categorized into four groups based on their parents' survival status as follows: non-orphan (both parents alive), maternal orphan (mother, deceased, but father alive), paternal orphan (father deceased but mother alive) and double orphan (both mother and father deceased). Furthermore, an orphan is defined as a child who's either one or both parents living status reported to be deceased for the purpose of modeling the data.

Living arrangement of the children is categorized into four groups based on their biological parents' residence together with their child or not as follows: living with both parents, living with mother only, living with father only and living with no parents.

2.3 Statistical Methods

Statistical analyses were carried out by using the survey package version 3.28-2 (Lumley, 2012; Lumley, 2004) in the statistical software system R version 3.0.2 (R Core Team, 2013) to account for the complex sampling design and weights to obtain appropriate standard errors for all estimates.

The proportion estimation including 95% confidence interval of the children by their orphan status and living arrangement were calculated and presented in table for both 2006 and 2011. The children who lived without parents were further analyzed to see in detail with whom they were living, including relationship with their head of household.

In order to explore the association between orphan status and household level characteristics, Chi-square test was done. Finally, the variation in living arrangement of orphans and non-orphans by household level characteristics was assessed by logistic regression model. The coefficients and standard errors from the logistic regression model were used to calculate adjusted proportion with 95% CI and compared it with crude proportion in the figure. The present study used sum contrasts which give a measure of its difference for each level of each determinant factor from the overall mean of the outcome while fitting the logistic regression model. The household characteristics included relation to household head, age and sex of households head, relationship structure and the wealth index of the families.

3. Results

3.1 Prevalence of Orphan and Living Arrangements

Table 1. Frequency and percent distribution of children by orphan status and living arrangement in Nepal, 2006 and 2011

	2006 (n = 19 772)		2011 (n = 20 839)	
Description	Frequency	% (95% CI)	Frequency	% (95% CI)
Orphan status				
Non- orphan	18 719	94.6 (94.0-95.3)	19 797	95.0(94.5-95.5)
Paternal orphan	635	3.2 (2.7-3.7)	667	3.2(2.8-3.6)
Maternal orphan	363	1.8 (1.5-2.1)	319	1.5(1.2-1.8)
Double orphan	55	0.3 (0.2-0.4)	56	0.3(0.2-0.4)
Living-with				
Neither parent	1406	7.1(6.2-8.0)	1520	7.3(6.5-8.1)
Mother only	4654	23.5(21.4-25.7)	5984	28.7(26.8-30.6)
Father only	417	2.1(1.7-2.5)	493	2.4(1.9-2.8)
Both parents	13 296	67.2(64.5-69.9)	12 841	61.6(59.6-63.7)

All the calculations were based on a weighted sample both in 2006 and 2011.

Abbreviation: CI- Confidence Interval

Table 1 shows the weighted frequency and percent distribution of the children with 95% confidence interval by their orphan status and living arrangement in 2006 and 2011. Of total children, 5% (95% CI, 4.7-6.0) in 2006 and 5.3% (95% CI, 4.5-5.5) in 2011 were orphans. The numbers of paternal orphans were found almost double than the number of maternal orphans in both surveys. About 3 in 1000 children were found to be double orphan, meaning having no father or mother. Out of the total number of children, about 7% were livings with neither parent. As expected, children staying with their mother only were very high (about 25%) compared to those staying with their father only (about 2%). The cross tabulation between orphan status and living arrangement (Table 2) shows that out of total non- orphans only 71% in 2006 and 65% in 2011 living with both parents. About one quarter of non-orphans resided only with mother and about six percent lived with neither parent. One third (30% in 2006 and 35 % in 2011) of non-orphans reside separately from both of their parents.

The comparisons of last two surveys show no evidence of change in the prevalence of different types of orphans, but it shows some changes in living arrangements. The trend of living with both parents has been decreased by 6% over the period (Table 1 and 2), but the trend of living only with mother has been increased by same segment even- though the children have surviving father (non-orphan). The living arrangement among paternal orphan has not changed, but living with father only has been decreased by about 5% among maternal orphan.

It was found that about 7% of the children staying with neither parent (Table 1) in both surveys. The entire double orphans, one third of maternal orphans, over 16% of paternal orphans and more than 6% of non-orphans resided apart from their parents (Table 2). Table 3 shows the detail information about these children and their relationship to the head of the households. Out of total children staying with neither parent, about one third (33% in 2006 and 34% in 2011) were staying with grandparents followed by other relatives 28.7% in 2006 and 32% in 2011. It is also noted that a substantial percentage of children were living in-law headed households (12%),

sibling headed household (9%) and living as not-related family member (8%) in both surveys. Only few children (about 2%) were living as foster or adopted children.

Table 2. Percentage distribution of the children by their orphan status and living arrangement in Nepal, 2006 and 2011

| Orphan Status | Year | % of children living with [a] | | | | Total children |
		No parents	Mother only	Father only	Both parents	
Non-orphan	2006	6.04	22.04	0.89	71.03	18 719
	2011	6.27	27.41	1.46	64.87	19 797
Paternal orphan	2006	16.85	83.15	-	-	635
	2011	16.47	83.53	-	-	667
Maternal orphan	2006	30.98	-	69.02	-	363
	2011	35.65	-	64.35	-	319
Double orphan	2006	100	-	-	-	55
	2011	100	-	-	-	56

[a] Row percentage

Table 3. Percent distribution of children staying apart from biological parents and their relationship to household head

| Relationship to Household Head | 2006 (n=1406) | | 2011 (n=1520) | |
	Frequency	%	Frequency	%
Head	49	3.5	47	3.1
Wife or husband	46	3.3	18	1.2
Son- in- law/daughter-in-law	173	12.3	176	11.6
Grandchild	461	32.8	515	33.9
Brother/sister	128	9.1	139	9.1
Other relative	404	28.7	487	32.0
Adopted/foster child	35	2.5	35	2.3
Not related	109	7.8	104	6.8

3.2 Variation in Living Arrangement between Orphan and Non-Orphan

Whether there are any differences in living arrangements between orphan and non-orphan were assessed by investigating the association between orphan status and household level characteristics. Household level characteristics included the relation to head of households, relationship structure, age and sex of the head of the households and wealth index. Univariate analysis illustrated that all the household level factors were significantly associated with orphaned except the age of the head of the households in 2006 (Table 4). All these factors were included in the multivariate analysis. Figure 1 shows the crude and adjusted percentage of orphans in different household level characteristics. Red horizontal lines represent the overall proportion of orphan children (5.3%) in 2006 and (5.0%) in 2011 and the bars represents the crude percentage.

Orphans were more likely to live in poor economic status households and less likely to live in rich economic household status. However, there was no strong statistical evidence (P value ≤ 0.05) to claim this variation since confidence interval for each level were not varied with average proportion of orphan in both surveys. The proportions of an orphan living with no or unrelated adult (more than 13%) were found significantly higher than the overall proportion both in 2006 (5.3%) and 2011 (5%). The figure also reveals that the proportions of orphan were less likely to live in normal families which had two adult opposite sex. The study specified that significantly higher proportion of orphans resided in female headed households compared to average orphan living households. More than 12% of orphans reside in the female headed households comparing to male headed households where only 3% of orphans resided in 2006 and the proportion was steady in 2011. The proportion of orphans, staying in a different age-group headed household was not significantly different in 2006 but it was indistinct different in 2011. The proportion of orphan were significantly lower in the younger age (< 40) headed household in 2011 but the proportion of orphans were significantly higher in the older than 50 years headed households.

Table 4. Result from univariate analysis between orphanhood and household level characteristics

Household level Characteristics	2006				2011			
	Non-orphan (n=18 720)	Orphan (1053)	F (df1, df2)	P values	Non-orphan (n=19 798)	Orphan (1042)	F (df1, df2)	P values
Relation to head of household			29.7 (4,510)	<0.001			402.1 (4)	<0.001
Head/Spouse	90	14			62	5		
Son/Daughter	13 522	632			14 520	629		
Close relatives	4168	228			4323	225		
Other relatives	844	155			821	149		
Unrelated	96	24			72	34		
Relationship Structure			21.0 (4,494)	<0.001			15.1 (4,986)	<0.001
No/unrelated adults	285	43			248	30		
One adult	1773	209			2415	208		
Two adults - opposite sex	5262	170			5161	150		
Two adults - same sex	732	97			965	99		
Three related adults	10 667	533			11 007	554		
Age of head of household			2.0 (4,542)	0.127			6.1 (4,1015)	<0.001
<30 years	2731	169			2842	122		
31-40 years	5807	266			6259	231		
41-50 years	4619	312			4534	260		
51-60 years	3003	166			3252	245		
>60 years	2559	141			2910	185		
Sex of head of household			139.5(1,143)	<0.001			177. 8(1,264)	<0.001
Male	15 169	557			14 619	451		
Female	3550	497			5178	591		
Wealth Index			2.5(4,528)	0.049			3.1(4,994)	0.019
Poorest	4242	303			4722	312		
Poorer	3933	231			4190	240		
Middle	3814	171			3942	207		
Richer	3520	202			3673	146		
Richest	3210	147			3271	137		
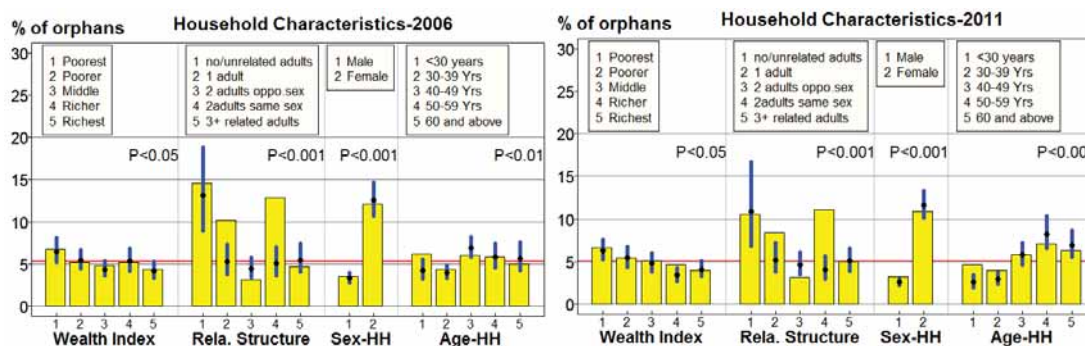
Figure 1. Observed and adjusted percent of orphan children with 95% confidence interval by household level characteristics, 2006 and 2011

4. Discussion

It is frequently believed that children live with their biological parents, experience their childhood together with other siblings and utilize the available resources of their parents. But in fact substantial numbers of children, in the world, are deprived of such an ideal living condition due to many reasons. This study found that more than one quarter of the children in Nepal were experiencing their childhood only with single parent and 6-8% of children were living with neither parent. This study focused on living arrangements and welfare of these children's and discussed the possible reasons.

4.1 Living with Single Biological Parent

While about one quarter of all the children were found living with mother only, but very small percentages of children were found living only with father in both surveys. Paternal orphan were found double than maternal orphan. It was also found that almost all the paternal orphans were found staying with mother. This could be one of the reasons behind the high proportion of children living with mother comparing to father. Another reason of these huge proportions of children staying only with mother could be temporary migration of their father into a foreign country for the employment. According to the department of foreign employment of Nepal, more than 1.8 million males migrated abroad between 2008-2014 excluding India for the same purposes.

An International study conducted in many countries highlighted that children living with both parents, more likely to follow their parent's guideline, do well in school and keen on reading than are children living with one or no parents. This report also claims that the extra resource that two parents provide to the children is huge advantages. However, same reports presented contradict findings in the least developing countries. Single parent household's children often do well as or even do better than two-parent household's children do. The reasons could be these families more likely to receive social and financial support from distance relatives or migrant worker who is working far away, do transfer the resources to the family where children reside. It also could be possible that children get benefit from single mothers when mothers invest more for their children's schooling than fathers do and have more influence in resources and decision-making that enhance children's education (Lippman et al., 2013).

4.2 Living Apart from the Biological Parent and a Relationship with the Household's Head

While the vast majority of children reside with one or both parents, single or double orphan are less likely to reside with a parent than non-orphan. This study found that only 7% of both orphans and non-orphans were living with neither parent. However, this is higher than neighboring countries, China and India (2-5%) and Europe (2-5%), North America (2-5%), but a lower compared to 10-20% in Sub-Saran Africa (Lippman et al.,2013). It is an important to disclose with whom they are staying. Hence, we further assessed the relationship of these children to their household head.

Despite of the child's interest of living with both parents, most of the children outside parental care live with their extended family under a kinship care arrangement in South Asia (UNICEF, regional office for South Asia, 2008).This study also found that out of total children staying with neither parent, about one third were staying with grandparents and another one third was staying with other relatives. A separate study in different country disclosed that 52.7% in Thailand followed by 38% in Cambodia and 17% in Vietnam the double orphans were living with the grandparents headed households. Grand children get benefit from the grandparents' experience that they share in their fresh mode. And 45% in Cambodia, followed by 30% in Thailand and 12% in Vietnam orphans reside with other distance relatives. (Cambodia Demographic and Health Survey (DHS) (2005); Thailand Multiple Indicator Cluster Survey (MICS) (2006); Vietnam Population and AIDS Indicator Survey (VPAIS) (2005).

In Nepal, child marriage is also prevalent (World Health Report, 2006) and the girls have to move to the husband's family. It is also noted in this study that substantial percentage of children were already married and some of them (12%) were living in-law headed households, as well, some others became the spouse of the head of the child headed households (3%). About 6% of the non-orphans were living apart from biological parents in Nepal, could be for the better academic performance and achievement as reported from the study conducted in three ASEAN countries like Thailand (8%), Cambodia (6%) and Vietnam (3%) children staying apart from biological parents for the same purpose (UNICEF EAPRO 2009; The National Multi-Sectoral Orphans and Vulnerable Children Task Force 2008) also present that both orphans and non-orphans who stay with other relatives in Cambodia, more likely to have a higher pattern of school attendance.

Adoption is not so common in Nepal. If someone adopted a child legally, s/he would claim him/her as their own child. Only few children (about 2%) were found living as foster or adopted children, but 8% children in both surveys were found living with not-related family member. A study in Sub-Saharan Africa revealed that children rearing among the family members and with others are a general practiced phenomenon of the society of sharing broader child support system. Child fostering is not only due to lack of, inadequate resources, but for providing the opportunity and strengthen the family relationship (Lloyd & Desai, 1992; Kathleen, Filmer, Stokes, & Tiererova, 2009).

4.3 Variation in Living Arrangements between Orphan and Non-Orphan

As stated in the introduction section of this paper, when one or both parents deceased, living arrangements would change as per decision of immediate parents or relatives based on local culture or legislation. Therefore, it is expected that there would be variation in the living arrangement between orphans and non-orphans. The result from our multivariate analysis also found the evidence of a significant association between orphan status and different household level characteristics like wealth index, relationship structure, sex and age of household head.

4.3.1 Economic Context of the Family and Orphan

This study found that the proportion of orphans were relatively high in the poorest households and relatively low in the richer and richest households. However, there was no strong statistical evidence to claim this variation since confidence interval for each level were not varied with average proportion of orphan in both surveys. This study is also unable to assess the temporal association and could not explain whether the families were poor before children become an orphan or it happens after parent's death. A study conducted on Cambodia, Thailand and Vietnam concluded that prevalence of orphans is much higher among the poorest households (UNICEF EAPRO, 2009).

4.3.2 Relationship Structure of the Family and the Orphan

The common structure of a nuclear family includes two adults of the opposite sex where the extended family may have three or more related adults. The family without any adult members or family with unrelated adults cannot be considered as a usual family structure. This study found that orphans were more likely to live in the family with no or unrelated adults. The orphans who are staying themselves without any adult members may have faced a range of challenges, including huge economic crises and inadequate services access. Similarly, the orphan who is staying with unrelated adults might have abused by adults. A study conducted in Sub-Sahara Africa found that one in 10 households were child headed households where there was limited access of basic needs including education and more likely to have abused. However, abuse cases generally do not report as of fear of revenge (Earnshaw, Niongwe, English, & Worku, 2009). A study in South Africa revealed the contradictory result that significantly low (0.47 %) children reside in child headed households and its remain steady. Surprisingly, more than 92 % of those children headed households have living parents (Meintjes, Hall, Marera, & Boulle, 2010).

4.3.3 Sex and Age of Household Head and Orphan

This study provides evidence that a significantly higher proportion of orphans were living in the female headed households and a significantly lower proportion of orphans were living in male headed households, both in 2006 and 2011 comparing the overall proportion of orphans. Numerous studies, in the past also indicated that the significantly higher proportion of orphans reside in the female headed households (Bicego, Rutstein, & Johnson, 2003; UNAIDS, UNICEF & USAIDS, 2004; The National Multi-Sectoral Orphans and Vulnerable Children Task Force, 2008). The reason behind the higher proportion of orphan reside in the female headed households could be female is more likely to care the orphans than male-headed households, it is also common that the father could stay elsewhere more easily (UNAIDS, UNICEF and USAIDS, 2004). Age of household head where orphans reside is also a concern form the prospective of children's welfare. Although, it was found a bit different result in two surveys, it can be concluded that orphans are less likely to live in a household headed by less than 40 years of age whereas more likely to live in households headed by more than 50 years.

5. Conclusion

This study concluded that the proportion of children living with both parents had slightly decreased in 2011compared to 2006 survey, but living with mother only and other relatives had slightly increased over the time. The household level characteristics in link of orphan and non-orphan living arrangements were significantly different. The higher proportions of orphans were found in the female headed household, with no adults or unrelated adults, economically challenged households.

This study was limited to the description of the living arrangements of children only. However, it is, nevertheless, an important element to consider when understanding the case of orphans in Nepal, as it can provide an invaluable reference for related authorities and other concerned organizations, which are working for the welfare of these children. A further study is essential to investigate orphaned children's overall well-being, in terms of their safety, their access to quality education and health, especially while considering the different living arrangements, such as those orphans residing with no adults or un-related adult, in a female-headed household, with their grandparents, with other relatives, or have become foster children of unrelated family.

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5P Health Shield for BOP Citizens: A Self-Care Approach

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Abstract

Given the appalling health statistics of the Indian sub-continent, a study was conducted to understand how people could be incentivized to lead healthy lives. To this effect, six board categories of incentives were identified. The results of understanding the association between variables indicated that the incentive for behavior change pertaining to self-care had no correlation with the age and gender but education levels played a significant role. Respondents who were graduates and above indicated that professional involvement, community cooperation, information assimilation & dispensing related support could improve their behavior pertaining to self-care. In corollary, individuals who are relatively less educated could be incentivized with therapeutic counselling, monetary incentives and family support. This study also highlighted the importance of women as the torch bearers of preventive healthcare and acknowledged their role in mobilizing the tenets of self-care. The need for an over-arching 5P Health Shield Program/Value Your Health Program is emphasized at a pan-India level. The former program is recommended for the less educated and marginalized while the later for the more educated and fortunate. All healthcare touch points like hospitals, nursing homes, primary care centres, private practices, pharmacies etc operating within the nation, should be mandated to assist in getting every Indian within the fold of either one of these Health Programs. Based on personal health scores/health parameters/risk factors, every Indian should be mapped to a specific health plan for eliciting the necessary guidance/support to prevent or predict the onset of health ailments, or else, protect or preserve oneself from its sinister outcomes. The program also proposes a partnership oriented plan for the chronically ill.

Keywords: preventive healthcare, 5P health shield program, Value your health program, lifestyle diseases, self care, therapeutic counseling

1. Introduction

As per NUHS, only 15% of Indian Urban Population is completely healthy. If the WHO statistics are to be considered, 60% of the world's heart patients are Indians with 1 in 4 struggling with diabetes. India's growing affluence is driving sharp increases in what were once considered scourges of the Western world: lung and breast cancer, obesity, diabetes, hypertension, and cerebro - and cardiovascular diseases. A rapidly changing lifestyle appears to be the one to be blamed, as Indians are smoking more; consuming more fat, sugar, salt, and refined grains; and leading increasingly sedentary lives, particularly in cities. Lifestyle related disorders like Type 2 diabetes, high cholesterol levels, hypertension, obesity, nerve compression etc are different from diseases because they are potentially preventable, and can be controlled with changes in diet, lifestyle and environment and hence these should be considered ailments rather than diseases. Although being mere disorders, these ailments should be considered sinister given the fact that they arguably cause or at the least, catalyze the onset of lethal diseases like cerebral & cardiovascular diseases, renal failures, retinal detachments, cancer, arthritis, etc.

Controlling and containing the impact of these ailments through self-care measures is rather imperative.

The World Health Organization defines self-care as 'activities individuals, families, and communities undertake with the intention of enhancing health, preventing disease, limiting illness, and restoring health'.

Some of these behaviors include

- Seeking health related information
- Exercising

- Seeing a doctor for regular checkups
- Making lifestyle changes by bringing about a work-life balance, stress reduction etc
- Adopting habits like 'no-smoking', moderation of alcohol intake, healthy eating etc
- Following low fat/sodium/carbohydrate diets
- Monitoring vital health signs
- Seeking advice through alternative care networks, evaluating this information, and making decisions to act upon it

1.1 Research Motivation

Although there is enough evidence to prove that India needs a lot more awareness about lifestyle diseases, but awareness alone is not sufficient to control the rampage of this sinister killer. Nor is it enough to just mobilize acceptance for the need to prevent or control the impact of these lifestyle diseases.

An overall integrated approach is mandatory whereby, apart from creating awareness about the disease itself, information is dispensed with regards to its development along with measures of prevention and control. In addition and most importantly people should be incentivized to lead healthy lives by adopting and adhering to the principles of self-care.

To this effect, an exhaustive study of literature and secondary research that was undertaken resulted in a long list of incentives that could possibly change human behavior pertaining to self-care. This extensive list was then grouped together under 6 board categories based on the existing literature and the final endorsement of 12 trained professionals working in the field of public health and behavior. The identified categories of incentives that could possibly change human behavior pertaining to self care were identified to be

- Therapeutic Counselling (Note 1)
- Monetary Incentives (Note 2)
- Professional Involvement (Note 3)
- Family Support (Note 4)
- Community Cooperation (Note 5)
- Info dispensing and assimilation (Note 6)

All of these provided a holistic framework for the study and was thus used as a threshold for this research.

1.2 Explanation of Concepts

Lifestyle Disorders/ailments – Type 2 diabetes, high cholesterol levels, hypertension, depression, nerve compression, obesity related issues etc.

Lifestyle Diseases – Cerebral & cardiovascular diseases, Alzheimer's disease, Crohn's disease, nephritis, asthma, chronic liver disease or cirrhosis, renal failures, retinal detachments, cancer, arthritis, osteoporosis etc.

Pre-emptive Measures – Adopting healthy eating habits (timely intake of hygienically prepared nutritious food), adherence to a physical exercise routine (with a combination of brisk walking, floor exercises and muscle workouts), adapting medically recommended sitting posture, regularizing a medication regime etc.

Healthcare Behavior - Manifested in terms of awareness, attitude, adoption, adherence.

Therapeutic Counseling – Targeting, goal setting, and planning sessions in which patients and providers focus on a specific problem, set realistic objectives, and develop an action plan for attaining those objectives in the context of patient preferences and readiness.

Monetary Incentives – Bonuses, as incentives or rewards for health-related behavior.

Professional Involvement – Creation of a continuum of self-management training and support services, in which patients have access to services that teach skills needed to carry out medical regimens, guide health behavior changes, and provide emotional support.

Family Support – Cooperation from family members both emotional and physical to bring about change in health behavior.

Community Cooperation – Support from the community at large or ones organization to maintain work life balance and get the necessary online & offline facilities for behavior change related to preventive care.

Info dispensing and assimilation - Active and sustained follow-up, in which patients are contacted at specified intervals to monitor health status, identify potential complications, provide health related knowledge, and check and reinforce progress in implementing the care plan.

1.3 Research Gaps

Although there is evidence of quite a few studies dedicated to the assessment of intrinsic factors impacting self care behavior, the effect of extrinsic facilitators by way of incentives also needed focus.

Factors such as therapeutic counseling, monetary incentives, professional involvement, family support, community cooperation, information dispensing & assimilation could arguably impact the self-care behavior of the urban masses. This was yet to be tested in the Indian context.

1.4 Research Question

The research gap brought forth a significant research question that needed to be addressed, which was: How about incentives - do they also play a role in shaping the self-care behavior of the Indian population? In line with these questions, the research objectives were formulated and are mentioned below.

1.5 Research Objectives

The core objective of this research was to assess the important incentives out of the six listed i.e. therapeutic counseling, monetary incentives, professional involvement, family support, community cooperation and information dispensing & assimilation, in the adoption of self-care behavior amongst urban dwellers.

1.6 Hypothesis

The adoption of self-care behaviour amongst urban dwellers is not dependent on incentives like therapeutic counseling, monetary incentives, professional involvement, family support, community cooperation and information dispensing & assimilation.

2. Method

2.1 Scope

This study was carried out in MV Diabetic Hospital's Royapetta & Adyar branches in Chennai.

2.2 Justification of the Area Selected

Chennai is an Indian metro with considerable representation in terms of the working population from almost all the Indian regions – hence this city was chosen for the study.

In addition, the city of Chennai has been termed *India's health capital*. Multi- and super-specialty hospitals across the city bring in an estimated 150 international patients every day. Chennai attracts about 45 percent of health tourists from abroad arriving in the country and 30 to 40 percent of domestic health tourists. The city has an estimated 12,500 hospital beds, of which only half is used by the city's population with the rest being shared by patients from other states of the country and foreigners (Note 7).

2.3 Justification for Selecting MV Diabetics

In Chennai, treatment for lifestyle related ailments like diabetics is available in government hospitals, private hospital and corporate hospitals, but in all of these hospitals, diabetic treatment is offered as one of the specialties.

M V Diabetic Centre was chosen for this study because it is a specialty hospital treating only lifestyle related ailments like diabetes. Moreover, over the years it has grown to be one of the largest referral centres for patients requiring super-specialists. It treated more than 2.4 lakhs people in the year 2011. Hence, decision of selecting this hospital for the collection of primary data.

2.4 Period of Study

For the purpose of this study and the objectives set, the primary data relating to the select age group was compiled during the calendar year 2013. As regards the secondary data, it was collected between calendar year 2010-2012.

2.5 Sources of Data

Majority of the data used in the research was primary in nature. Primary data was collected through a detailed survey. However the study also used some amount of secondary data- sources which has been duly included in the reference section below. Secondary information was sourced from published reports and also the internet, etc. The sources of secondary data have been listed in the reference section.

2.6 Sampling Details

Based on the fact that Chennai's average population is 50, 00,000 – in order to achieve a confidence level of 95% and confidence interval of 5, the ideal sample size calculated was approximately 382.

With reference to the objective set for this study, a structured questionnaire was designed, pretested and finalized. For the purpose of administering the questionnaire, the following methodology was adopted:

1. To ensure a fair coverage of the Chennai population, the survey was conducted in MV Diabetic Hospital's Royapetta & Adyar branches. Care was taken to ensure that sample respondents belonged to all the 10 zones of corporation of Chennai [before extension of Chennai corporation limits].

2. From each zone, about 38 people were included in the survey.

Considering the nature of the study, a certain level of maturity amongst the respondents was considered, a precondition - hence individuals who had attained maturity (i.e. 18 years of age) were chosen as the lower end of the age group. Simple Random Sample was adopted as the sampling methodology.

2.7 The Survey Process

Given the nature of the study, Chennai's famous specialty hospital, MV Diabetic Hospital's Royapetta & Adyar branches were chosen to identify the prospective respondents. The patients and their attendants entering the hospital were targeted. Once the patients had registered their visits and gone through their preliminary tests, they were approached and oriented to the various aspects of the study. Their willingness was assessed and then support sorted. In addition, since these patients would anyways have to wait to see their designated endocrinologist, resistance to respond to the questionnaire was minimal. Apart from a few, almost all the respondents eagerly read the questions before responding to them. It took almost 30 days to get all the 382 questionnaires filled in.

2.8 Tools of Analysis

The frequency analysis was used to examine the profile of respondents while the t test for equality of means, for the identification of the fact whether the sample respondents differed significantly in terms of demographic factors like age, gender, and education.

The factor analysis helped to identify the relevant demographic factors like age, gender and education level influencing preventive HC behavior and the cluster analysis to identify the presence of different homogeneous groups in the sample. The multiple regression analysis provided support in identifying the important determinants of lifestyle related preventive healthcare behavior.

3. Results

3.1 Frequency Analysis

The Frequency analysis undertaken confirmed that 61.2% respondents are males, 77.4% were between the ages of 18-30 yrs, 63.2% were post-graduates, 44% earned between INR 0-1Lakhs per annum, 35% used interactive media, 30% visual, 25% print,10% used none. In terms of the social media membership, 81% used Facebook, 46% YouTube, 41% Orkut, 38% LinkedIn and 34% Twitter.

3.2 Test for Hypothesis

'T' test was conducted to test various hypotheses relating to self-care behavior.

Hypothesis 1 - 'The incentives related to self-care behavior do not significantly differ among age groups.' While testing the hypothesis none of the incentives turned statistically significant. Therefore we accepted the null hypothesis that self-care behavior does not significantly differ among age groups.

Hypothesis 2 – 'The incentives related to self-care behavior do not significantly differ among genders.' While testing the hypothesis about the incentives of self-care behavior and gender, none of the incentives turned statistically significant. Therefore we accepted the null hypothesis that the incentives related to self-care determinants do not significantly differ among genders. In other words gender has no major impact on the incentives related to self-care behavior.

Hypothesis 3 – The determinants of self-care behavior do not differ significantly among respondents belonging to different educational background. The t test revealed that education impacts three out of six incentives i.e. information assimilation & dispensing, community cooperation and professional involvement. These incentives differ significantly among patients with different educational background. Thus the null hypothesis was rejected.

3.3 Cluster Analysis

Cluster analysis was carried out to find out whether the respondents could be divided into natural groupings based on the 6 incentives i.e. therapeutic counseling, monetary incentives, professional involvement, family support, community cooperation and info dispensing and assimilation. The outcome confirmed the existence of 5

clusters. However, in Cluster 1, 2 and 3, since most of the respondents fell into one group with just 1 or 2 respondents in the others, those were not taken into account and were dropped. Only Cluster 4 and Cluster 5 were considered and proceeded with. It is worth noting that Cluster 5 had 3 distinct groups while Cluster 4 had only 2. Since Cluster4 Group1 attracted a significance value of > 0.05, it was not considered in a line of good fit, hence dropped and only Group2 within Cluster 4 was considered. The 3 groups within Cluster 5 did not differ significantly in terms of the average of 6 variables. To test this, the average of these 6 variables and the variation among them were calculated and with that, the F value was computed. The results indicated that the mean of the 6 variables differed significantly among the 3 groups i.e. these 3 groups have distinct features.

Cluster Description is as below:

Cluster 4 Group 2
a) Age – 18 to 30 yrs – 79%
b) Gender – Male 63% and Female 37%
c) Education – Post Graduation – 64%

Cluster 5 Group 1
a) Age – 18 to 30 yrs – 78%
b) Gender – Male – 53%
c) Education – Post Graduation – 53%

Cluster 5 Group 2
a) Age – 18 to 30 yrs – 80%
b) Gender – Male 61% and Female 39%
c) Education – Post Graduation – 77%

Cluster 5 Group 3
a) Age – 18 to 30 yrs – 76%
b) Gender – Male 63% and Female 37%
c) Education – Post Graduation – 60%

The above findings substantiated the outcome of the test of hypotheses conducted earlier.

3.4 Multiple Regression Analysis

Multiple Regression Analysis was carried out in order to assess the impact of each of the incentives namely i.e. therapeutic counseling, monetary incentives, professional involvement, family support, community cooperation and info dispensing and assimilation on the dependent variable, i.e. general self-care within each of the clusters and its specific groups.

Cluster 4 Group 1 was dropped because of inappropriate fit.

Within Cluster 4 Group 2, the incentive 'Professional Involvement' was found to be statistically significant for the adoption of preventive healthcare behavior as indicated by the beta coefficient (.121) implying that 1 unit of improvement in belief/action relative to 'Professional Involvement' would improve the self-care behavior by .121 units.

Within Cluster 5 Group 1, the incentive, 'Information Dispensing & Assimilation' was noted to be statistically significant for the adoption of preventive healthcare behavior as indicated by the beta coefficient (.139) implying that 1 unit of improvement in belief/action relative to 'Information Dispensing & Assimilation' would improve the self-care behavior by .139 units.

Within Cluster 5 Group 2, the incentive 'Information Dispensing & Assimilation was considered statistically significant for the adoption of preventive healthcare behavior as indicated by the beta coefficient (.281) implying that 1 unit of improvement in belief/action relative to 'Information Dispensing & Assimilation' would improve the self-care behavior by .281 units.

Within Cluster 5 Group 3, the incentive 'Family Support' was considered statistically significant for the adoption of preventive healthcare behavior as indicated by the beta coefficient (.122) implying that 1 unit of improvement in belief/action relative to 'Family support' would improve the self-care behavior' by .122 units.

4. Discussions

The results of understanding the association between the variables indicated that the incentive for behavior change pertaining to self-care had no correlation with the age and gender of the respondents but education levels played a significant role. The outcome of cluster based regression analysis confirmed that.

- Respondents who were graduates and above needed professional involvement, community cooperation and information assimilation & dispensing related incentives to improve their behavior pertaining to self-care
- In corollary, individuals who are relatively less educated could be incentivized with monetary incentives, family support and therapeutic counselling to improve their behavior towards self-care

5. Conclusion

Given the fact that most educated adults in urban India have access, ability and appropriate attitude towards the use of electronic media, the Government of India should mandate the use of an integrated health platform by all hospitals, nursing homes, primary care centres, private practice centres, pharmacies etc. operating within the nation. It should be noted that the OPDs and emergency departments of these setups are also the primary touch points for millions of people who fall prey to the ill effects of leading unhealthy lives. The e-platform should enable the storage of health related data of each person/patient against their 'Adhar Card number' (similar to the National Security number prevalent in UK) wherein their lifestyle related ailment details, prescribed prevention related information, precaution plans, periodicity of checkups etc are recorded. The stored information should be linked to technology enabled rules facilitating the flow of automated sms/emails/recorded messages hypothetically referred to as 'Dost Ka Post' i.e. 'A Friend's Post', reminding them about their scheduled checkups, follow-on consultation sessions, task of monitoring & logging health data etc. This platform should enable e-communication with regards to, say food consumption, exercise regime, stress management techniques, routine medication etc specifically customized to suit the individual's personal health conditions. It should also host a vibrant forum of online communities based on specific ailments where ideas can be exchanged, experiences shared, advice sort and counseling arranged. This platform can be designed and built on a PPP model (public private partnership) and these facilities could be offered on a SAS basis (software as a service) as a Cloud based mobile application for the convenience of the end user.

In contrast, a large number of India's less educated urban/rural citizens who belong to the 'Bottom of the Pyramid' (Prahalad & Stuart, 2002) are economically weak. They spend most of their time trying to make two ends meet and have minimal or absolutely no access to technology. For these set of individuals, a one-on-one counseling approach is recommended, wherein professionals/health workers engage with them to set realistic targets related to their health parameters considered imperative to modulate risk factors and promote health.

In fact 160 million women in India who are primarily involved in care work and family rearing (Indian Census Data, 2011) should be engaged to create awareness and consciousness about the benefits of preventive healthcare. They should be mobilized to instill efficacy in self-care measures within their respective families especially amongst their young ones from an early age. Their contribution in terms of preparing nutritional meals with minimal salt, sugar and spices can be of immense benefit and hence should be capitalized upon. Campaigns aimed to sensitize and train them to inculcate healthy eating habits, exercise regimes, check-up schedules etc executed at the community and locality levels should provide the required impetuous to the nation's health related goals and objectives. These campaigns should be promoted with an emotional angle using nomenclatures such as 'Swasta Ka Saath' which in English means 'Companionship of Health'. Educational institutions should also be tapped for the purpose.

In addition, monetary initiatives which could be introduced among this segment in order to improve their behavior towards self care is sampled below:

a) An offer to exempt 'X' amount of tax for achieving or complying with targets related to body weight, body mass, physical strength etc. could prove to be an effective incentive
b) Bonus or a partial cash refund on health insurance premiums can also be extended to this group of audiences to help improve their behavior towards self care
c) Discounts on gymnasium membership for maintaining a set of pre-determined targets related to health oriented risk factors, could also work as an incentive to improve self-care

These measures should stimulate a culture of self care, prevention, early detection and systematic monitoring & control of lifestyle related ailments thus deterring, deferring and delaying the onset of the curative aspects of healthcare.

From a commercial perspective, the implementation of the proposed monetary schemes/incentives by insurance companies and wellness brands, could prove to be an effective acquisition strategy resulting in a dynamic customer base, providing cross-selling and up selling opportunities to a well oiled marketing machinery.

From a social standpoint, irrespective of the educational divide, an over-arching national 5P HealthShield Program/Value your Health Program is recommended. The former one for the less educated and marginalized

while the later for the more educated and fortunate. All healthcare touch points for e.g. hospitals, nursing homes, primary care centres, private practice centres, pharmacies etc. operating within the nation, should be mandated to get every Indian within the fold of this national program. Based on health scores, every Indian should be aligned to a specific health plan, a brief description of which is as below.

- PREVENT PLAN – As the name suggests, this plan type should enrol individuals who have no known or indicative risk factors but are proactive about their wellness. For the members of this plan, efficacy related awareness towards preventive care should be reinforced vide an effective and integrated communications strategy

- PREDICT PLAN - This is targeted at off springs of say diabetics (especially of age group 50+), pre-diabetics, individuals who work in stressful/ demanding environments, are overweight, have high BMI indices, have BP/cholesterol related issues etc. – who may be quite susceptible or genetically predisposed to lifestyle related disorders. This group should be made aware of the impending risks and should be sincerely advised to adopt precautionary measures like reduction in weight, calorie consumption, mental stress, salt intake etc and should be encouraged to embark on a walking schedule, exercise regime, a high fiber-low calorie diet etc.

- PRESERVE PLAN – Individuals who have recently been diagnosed with one or many lifestyle related ailments like BP, high cholesterol, diabetes etc and need to be empowered with tools/ mechanism to preserve their vital organs from the deadly impact of these ailment, need to be mapped to this plan. Adoption and adherence to physical activity related regimes should be mandated especially for progressive ailments. Low salt, sugar and oil intake should be prescribed in order to reduce/maintain body weight. Counselling should be provided to help them cope with lifestyle related changes. Family members of this group should also be sensitized on these issues.

- PROTECT PLAN - This plan will look to map individuals with advanced level of lifestyle related ailments which ideally require an intensive approach to postpone or prevent complications. Given the chronic nature of such disorders, emphasis on innovative tactics especially to reduce depression and mental fatigue which is imperative to provide the required relief, should be incorporated as a part of this plan.

- PARTNER PLAN - Targeted at individuals engulfed with the complications of lifestyle related disorders, seeking support to protect their vital organs should be mapped to this plan. Vide this plan, members will be provided support by healthcare specialist with a partnership oriented approach.

These programs should reside on the technologically enabled 'National Health Platform' recommended earlier and should be integrated with the e-platform in discussion, for the tech savvy citizens. For the rest, manual support can be sort by NGO's, health workers etc for the execution of the recommended interventions and the promotion of campaigns discussed earlier.

Implementation of these measures could provide the right impetuous to the Indian government's vision of making health a social movement especially amongst citizens belonging to the 'Bottom of the Pyramid (BOP)'.

Taking a macro level view of the situation, it is recommended that other BOP nations especially the south Asian nations like Bangladesh, Pakistan, Srilanka etc who are genetically disposed to lifestyle related ailments(Note 8), could also use these strategies, plans and programs to build healthier nations.

5.1 Limitations of the Research

- The result of this study is confined to Chennai city and hence the results should be used as an indicator only. For the application of these incentives elsewhere – additional study will need to be conducted or this study will need appropriate modification.
- The sample is limited to the metropolitan population only. A better representation can be achieved by including the rural population.
- The statistical results of this research effort are subjected to the limitations of the respective tools that have been used.

5.2 Indications for Future Research

- This research effort should be extended to the non-urban/rural areas also. A comparative study of the outcome between the urban and rural regions could also turn out to be an interesting research area for other research scholars. In fact the outcome should be validated in other urban regions of this diverse country. In fact, given the health related statistics of rural India, further research is recommended in these pockets for a more holistic perspective.

- Similar studies can be undertaken with more incentives or sub-incentives.

- This research should also be conducted with the equal representation of the ill-literate section of the society.

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Notes

Note 1. World Health Organisation's Western Pacific WHO director Shin Young-soo

Note 2. Korff, Michael Von et al., Collaborative Management of Chronic Illness 15 December 1997 *Annals of Internal Medicine* Volume 127 Number 12

Note 3. Schmidt, Harald, Bonuses as Incentives and Rewards for Health Responsibility: A Good Thing? Journal of Medicine and Philosophy , 33 : 198 – 220, 2008 doi:10.1093/jmp/jhn007 © The Author 2008

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Note 8. http://en.wikipedia.org/wiki/Medical_tourism_in_India

Where the Dimensions of Religion and Mass Media Social Marketing Campaigns Intersect

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Abstract

This paper explores mass media social marketing practitioner insights of where the dimensions of religion and mass media social marketing campaigns intersect. Under an interpretive paradigm (Crotty, 1998), in-depth interviews were conducted with five expert mass media social marketing practitioners in Australia. The data was analysed qualitatively and three themes emerged from the results: (1) The dimensions of religion do have application in mass media social marketing campaigns; (2) participants employed the dimensions of religion with care to avoid a negative effect on the target audience and (3) while social marketing campaigns use 'preaching' as a communication medium, it tends not to be deliberately linked to religious practices.

Keywords: dimensions of religion, mass media social marketing campaigns, in-depth interviews, qualitative research, tree map analysis

1. Introduction

Founded in an earlier paper (Van Esch, 2013), both the dimensions of religion and mass media social marketing campaigns continue to receive growing attention in the literature. An abstract search of the EBSCO Business Source Premier database for the terms 'dimensions of religion' and 'mass media social marketing campaigns' from 1960 to 2010 shows that literature related to the combination of both concepts is growing steadily, albeit off a low base. The analysis and review of mass media social marketing campaigns is a continuation of the body of work founded in Van Esch et al., (2013) and the analysis of social marketing campaign texts has recently been reported and founded in Van Esch et al., (2014). The data was collected from five expert mass media social marketing practitioners who were identified from government and/or private agencies that specialise in the design, creation and evaluation of mass media social marketing campaigns and who have been directly related to or have experienced the topic under investigation. This paper briefly recaps both parent bodies of literature, identifies gaps and presents the objective of a broader research program. A study related to one part of the program is presented in this paper, which describes the method, presents the results and draws conclusions.

2. Theoretical Foundations

2.1 Mass Media Social Marketing

Kotler and Zaltman (1971) first coined the term 'social marketing' as a reference to the application of marketing as a solution to social and health problems. French et al., (2010) recognised that the social marketing discipline derives from two distinct movements – marketing and social sciences. Both are concerned with how best to influence people's behaviour. Furthermore, French (2013) was part of a working group who developed an international consensus definition of social marketing:

"Social marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for the greater social good. Social marketing practice is guided by ethical principles. It seeks to integrate research, best practice, theory, audience and partnership insight, to inform the delivery of competition sensitive and segmented social change programmes that are effective, efficient, equitable and sustainable".

Hornik and Yanovitsk (2003) through the theory of social marketing at the time proposed that behaviour change through a series of linear steps is the outcome of an effective social marketing campaign. A change in behaviour begins with acquiring knowledge about the costs and benefits to perform the desired behaviour; next a change in beliefs is followed by an intention to act. Behavioural intentions eventually translate into actual behaviour. An assumption of the linear model is that individuals receive information passively and make choices freely based on the information provided.

A number of theories relate to social marketing: (1) Theories explaining social persuasion include the elaboration-likelihood model, which holds that attitudes are changed via two routes of persuasion – central and peripheral (Petty & Cacioppo, 1986). (2) Theories of behaviour change include the theory of reasoned action (Fishbein and Ajzen, 1974), protection motivation theory (Rogers, 1975), health belief model (Rosenstock, 1977), theory of interpersonal behaviour (Triandis, 1977) and theory of planned behaviour (Ajzen, 1985). (3) Theories explaining the process of behaviour change include the theory of self-regulation (Carver and Scheier, 1981) and the trans-theoretical model of change (Prochaska & DiClemente, 1983).

Social marketing campaign messages can be delivered through multiple channels or activities, which may include mass media (Wundersitz, 2011). Mass media can include audio-visual media (e.g. television, cinema), printed media (e.g. newspapers), interpersonal communication (e.g. lectures) and electronic (e.g. emails, websites) (Delhomme et al., 2009). As a means of promoting attitude and behaviour change to improve public health, mass media campaigns have been used extensively. Campaigns include smoking cessation (McPhee et al., 1995), promoting safer road use (Woolley et al., 2001), health service utilisation (Grillie et al., 2002) and encouraging participation in physical activity (Cavill & Bauman, 2004). Such mass media campaigns target the population as a whole, with benefits providing social support for behaviour change and the potential altering of attitudes and/or knowledge of a large proportion of the population (Redman et al., 1990).

The mass media social marketing campaigns analysed, reported and founded in Van Esch et al., (2013; 2014) are deemed to have evidence of each of Andreasen's (2002) six social marketing benchmarking criteria (Carins & Rundle-Thiele, 2013). Table 1 summarises the six criteria.

Table 1. Social marketing benchmarking criteria

No.	Criteria	Description
1	Behaviour change	The intervention seeks to change behaviour and has specific measurable behavioural objectives.
2	Consumer research	Formative research is conducted to identify consumer characteristics and needs. Interventions are pre-tested with the target group.
3	Segmentation and targeting	Different segmentation variables are used and a strategy tailored to the segments.
4	Marketing mix	The intervention must consist of communications plus at least one other 'P'. These P's may include Policy or People.
5	Exchange	The intervention considers what will motivate people to engage voluntarily with the intervention and offers them something beneficial in return, whether that is intangible or tangible.
6	Competition	The intervention considers the appeal of competing behaviours (including the current behaviour) and uses strategies to decrease competition.

Source: Andreasen, (2002).

2.2 The Dimensions of Religion

Fam, Waller and Erdogan (2002) continue to argue that "In a constantly changing and increasingly globalized world, religion still plays a significant role in influencing consumer behaviour". Religious beliefs play a significant part in sculpting social behaviour with 74% of Australia's population reported having a religious affiliation (ABS, 2004; 2006), 77% of Britain's population reported belonging to a religion (ONS, 2001) whilst 79.9% of America's population indicated they had a religious identification (Kosmin & Keysar, 2008). According to Hirschman (1983), religious affiliations help shape attitudes towards dancing, magazines, restaurants, political ideas and tend to influence the way people live, the choices they make, what they eat and whom they associate with. While the content of such religious beliefs and affiliations may vary from one religion to another, their constructs and underlying themes may be conceptualised using the seven dimensions of religion (Smart, 1996). Table 2 summarises the dimensions of religion and its identifiers.

Table 2. Dimensions of religion and their identifiers

Dimension	*Identifiers*
Practical and ritual	Practices and rituals of different traditions and cultures, preaching, prayers, ceremonies, meditation, worship, spiritual awareness, ethical insight, communities re-enacting their myths and stories to confirm and express beliefs through action.
Experiential and emotional	Evoking religious feelings, direct experiences of the divine, visions, enlightenment, security, comfort, awe, inexplicable presence, mystery, ecstasy, dread, guilt, awe, devotion, liberation, inner peace, bliss, assurance of salvation, brilliant emptiness, an expanded sense of identity, accumulation of religious knowledge and experiences and unconscious, super-conscious and/or neurologically induced events of a higher reality.
Narrative or mythic	Myths or sacred stories, systematic or complete interpretation of god(s), the nature of humans and their place in the universe, historical accounts, hagiography, oral traditions, authority from the divine.
Doctrinal and philosophical	Doctrines, systematic formulation of religious teachings and beliefs, sacred texts, the nature of divinity, ultimate reality, the relationship of humans to an ultimate, real, divinity. Religious narrate, reflection, structured beliefs beyond the symbolic aspect of myths, faith, and values of a tradition, worldly views and salvation.
Ethical and legal	Laws, rules, guidelines or behavioural precepts for conduct according to which the community, employees, employers, consumers, producers and citizens at every level of existence judge a person, conformity, a supernatural realm and higher being of a particular faith.
Social and institutional	Tradition, belief system, social organisation, shared and implied attitudes practiced by individuals or the group, community membership, participation in public, exemplary individuals, buildings, works of art, cities, symbols, idols, other creations and places of worship, formally organised, a sense of normative values, group bonding, functioning society and a community to live in.
The material	Ordinary objects or places that symbolise or manifest in material form that help connect the believer to the sacred, supernatural or the divine, religious artefacts, religious capital, sacred objects, sacred tourism, pilgrimage and sacred areas and/or places.

Source: Adapted from Smart, (1996).

2.3 The Intersect between Social Marketing and Religion

The possible link between mass media social marketing campaigns and the dimensions of religion merits investigation, as this could be one technique to reach people (a targeted social audience) on a large scale. While a substantial body of work is available for both concepts, there is limited, literature on this intersect. Hence, it is unclear whether and how the dimensions of religion are used in mass media social marketing campaigns. We are also unsure if social marketing practitioners can identify and accept the link between the dimensions of religion and social marketing and their willingness to apply the dimensions of religion to mass media social marketing campaigns. Given these gaps in knowledge, the objective of the research program was to explore through in-depth interviews with social marketing practitioners the use of the dimensions of religion. This paper reports on the research question: *Do the seven dimensions of religion have application in mass media social marketing campaigns*?

3. Methodology

3.1 An Interpretive Approach

The two central paradigms in social science research are known as the positivist and the interpretive approaches (Perry, 1995, p. 22; Veal, 2005, p. 24). The exploratory nature of the stated research objective fits with the intentions, philosophy and strategies of the interpretive research paradigm and is based on the epistemology of idealism.

Higgs (2001) defines idealism as "a social construction encompassing a number of research approaches, which have a central goal of seeking to interpret the social world". Crotty (1998) suggests that within the interpretive paradigm, human beings construct meanings in unique ways, which are dependent on context, experiences and frames of reference of the world they are trying to interpret. With this type of research, Creswell (1998) suggests that as findings emerge due to the interactions between the researcher and the participants (i.e. social marketing practitioners); the research also progresses because subjectivity is valued (Bhattacherjee, 2012). This

acknowledges that the research participants are human and incapable of total objectivity because their reality is constructed by subjective experiences within certain situations. Therefore, the values held by the researcher, the questions asked of the participants and the generated and interpreted findings all allow the research to be value-bound. Sense making, rather than explaining or predicting, must be the emphasis in order to understand the experience. For researchers using qualitative analysis, it is imperative to have a creative, ethical investigative and participant-in-context attitude (Miles & Huberman, 1984).

Given its potential to generate new understandings of the emerging religion in social marketing concept and to obtain practical knowledge that is embedded in the world of human interaction and meanings, the interpretive paradigm was deemed the most suitable for this research and is informed by the work of Denzin and Lincoln (1994; 2000). Particular advantages of qualitative research include (1) a humanistic and inherently literary focus, which generally starts from and returns to words (Denzin & Lincoln, 2000); (2) provides robust insights from actions that have occurred in a real-life context and preserves the intended meaning which forms an understanding of underlying social processes and meaning in a business/management environment (Van Mannen, 1998).

3.2 In-depth Interviews Technique

In-depth interviews were used as a qualitative research technique, to conduct individual interviews to explore experiences, ideas, opinions, perspectives, thoughts and views of five informed experts possessing knowledge of mass media social marketing campaigns and the dimensions of religion. Under the principle of saturation, Jette, Grover and Kech (2003) argue that expertise in a chosen topic can reduce the number of participants needed in a study. In support of the relatively small sample size, Van Esch and Van Esch, (2013) argue that "in qualitative research studies, there are numerous factors that can determine a sample size and the literature is limited as to what a sufficient sample size is (Mason, 2010)". Whilst Guest, Bunce and Johnson (2006: 59) argue that "there is little practical guidance for estimating sample sizes for robust research prior to data collection". Therefore, in a review of the literature, seven (7) sources provide practical guidelines for sample sizes (Table 3).

Table 3. Type of research and sample size

Source	Type of research	Sample size
Creswell (1998: 64); Morse (1994: 225)	Qualitative research	5 to 25
Bertaux (1981: 35) adapted from (Guest et al., 2006)	Qualitative research	15 is the smallest acceptable sample
Charmaz (2006: 114)	Qualitative research	25 is adequate for smaller projects
Ritchie et al., (2003: 84)	Qualitative research	<50
Van Esch and Van Esch (2013: 228-229)	Qualitative Research	5

Source: Adapted from Mason (2010); Van Esch and Van Esch (2013).

The sample target identified was mass media social marketing practitioners in Australia that were identified from government and/or private agencies who specialise in the design, creation and evaluation of mass media social marketing campaigns.

Therefore, to bolster the analysis and findings of the textual analysis founded in Van Esch et al., (2014), and to further distil any emerging themes from the data in order to draw meaningful conclusions, the in-depth interviews consisted of eight questions (Table 4).

Table 4. In-depth interview questions

Question 1	*Do the dimensions of religion have application in mass media social marketing campaigns?*
Question 2	The campaigns often use a preaching context; do you think this is related to religious practices?
Question 3	Is a preaching context an appropriate driver for mass voluntary behaviour change?
Question 4	Some campaigns utilise a theme of Assurance of Salvation without using explicit religious language; do you think the campaign would benefit or suffer from the use of religious language?
Question 5	Is an Assurance of Salvation theme an appropriate driver for mass voluntary behaviour change?
Question 6	Whilst five of the seven dimensions were evident, many of the identifiers were not; would the

increased use of the identifiers in an implicit and/or explicit way reinforce a campaign message?

Question 7   Two dimensions that are explicit in religious content were not evident in the campaigns; would this represent a deliberate extent to mitigate the use of religion in mass media social marketing campaigns?

Question 8   The two non-evident dimensions: The Material and Narrative or Mythic, do they or their identifiers have application within mass media social marketing campaigns?

Source: Van Esch et al., (2014).

Therefore, intentionally using more than one method of analysing data, the in-depth interviews were used to synthesise the data (Reiman, 1979); this approach allowed the individual methods to complement each other and the comparison used to triangulate the findings and add validity in drawing meaningful implications and conclusions. The in-depth interviews for this study were conducted one-on-one and either face-to-face or face-to-face through an electronic medium (e.g. Skype). In terms of formality and structure, each interview was flexible in its approach. This meant that an in-formal approach was adopted in the delivery. During the interview, questions were either omitted or used in a different order dependent on the direction of the dialogue; probes were at the discretion of the interviewer; the interviewer answered questions and made clarifications; the style of language was adjusted when necessary and the wording of questions was flexible. The data collected was rich, due to the high level of personal interest and response to the research from the interviewees. Even though the topics were covered in different orders and in different ways during the different interviews, this allowed each interview to become a story in its own right. The unique nature and structure of each story was of significant interest, as they were used to guide the research propositions. The interviews were recorded with participant consent. This allowed for the ability to produce complete verbatim transcripts of interviews.

4. Results and Discussion

4.1 Interview Results and Discussion

A qualitative analysis of the participants' responses indicates that the dimensions of religion do have application in mass media social marketing campaigns. However, as demonstrated in the following quotes, participants appear to be committed to specific dimensions, rather than to the full suite of the seven dimensions of religion:

"*Yes, specifically symbols or myths that are used as subliminal stimuli portraying an experience that can influence the betterment of the campaigns target audience*" (Participant 1). "*Yes, provided that it is in context within today's reality. The campaigns that use preaching generally are connected to a patriarchal figure* (Participant 2). "*Rituals and especially the social and institutional aspect; which are very important factors when planning campaigns. Not only are religious themes important but more so their integration with technology and how that links with the audience*" (Participant 4). "*The 'doctrinal and philosophical' and especially the 'practical and ritual' dimensions are expected in campaigns. The Narrative or mythic assists with campaigns focused on driving social responsibility on a broader scale*" (Participant 5).

Further, as indicated in the following quotes, participants expressed hesitation or caution to the use of certain dimensions of religion to ensure that there was not a negative effect on the target audience:

"*The campaigns that use preaching generally are connected to a patriarchal figure. This may have a good influence on some people, but; this is only one sided. On the other side, the context of messages or visualisation of the patriarch may anger some audience members. Therefore, plenty of consideration must be given to such a dynamic during the planning phase of the campaign*" (Participant 2). "*It is a balance because too much emphasis incorporating religious vocabulary or religious direction may damage the campaign message and ultimately anger or put the target audience offside*" (Participant 5). "*From a modern view, it is very sensitive. They would need to be very flexible and be able to fit with the different non-religious values that people align to. I think that they should never be used within a campaign to bring about a bad reaction in people or cause aggression, as this would be detrimental to the success of the campaign and potentially to a society that is united by religion*" (Participant 3).

When asked if a preaching context in social marketing campaigns was related to religious practices, the respondents indicated that this was not so. As suggested in the following key quotes', 'preaching' is not considered as a campaign communication technique; rather the focus is on the call to action which can be achieved through different mediums:

I think it may also be seen as lecturing but I can't say that the success of the campaign depends on a preaching context. In terms of marketing, a preaching context is not necessarily or deliberately linked to any religious

practices" (Participant 1). *"Preaching can incite some kind of fears in the human psyche. The preaching may use an apathetical vocabulary and therefore I don't think that this is related to religious practices. If it is, I think it must be a coincidence"* (Participant 2). *"It may be some kind of call to action but for me it's not preaching"* (Participant 3). *"In general there is some kind of calling, but I don't know how much it can be attributed to preaching. Maybe theoretically it has religious dependence"* (Participant 4). *"Preaching may be used as a call to action when you are explaining what is good and what is not. When using preaching in social marketing, the characteristics of the dimensions of religion may instil loyalty towards the desired behaviour change over time; this would need to be tested"* (Participant 5).

4.2 Tree Map Analysis

The verbatim interview transcripts were coded against the seven dimensions of religion and their identifiers using a qualitative software tool (e.g. NVivo) and subjected to a tree map analysis to highlight hierarchical data and to compare nodes based on their attribute values (Table 5).

Five of the seven dimensions of religion appear in the tree map analysis. The results from the tree map analysis indicate the dimension's significance and that of the identifiers within it. The most significant dimensions and identifiers are (1) Social and institutional (exemplary individuals, participation in public, group bonding and community membership); (2) Practical and ritual (preaching, ceremonies, re-enactment of myths and stories and ethical insight) and (3) Doctrinal and philosophical (religious narrative). Dimensions and identifiers of medium significance are (1) Experiential and emotional (assurance of salvation, evoking religious feelings and comfort); (2) Ethical and legal (guidelines, rules and judgement of a person). The Material (religious artefacts) was a low ranking dimension. The final dimensions, which did not appear in the results – Narrative and mythic – appears to be of lowest significance.

Table 5. Tree map analysis for all interviews

Dimension\Identifier	Coding references	Items coded
Social and Institutional\Exemplary individuals	48	19
Practical and Ritual\Preaching	45	19
Doctrinal and Philosophical\Religious narrative	41	16
Experiential and Emotional\Assurance of salvation	33	17
Practical and Ritual\Ceremonies	21	9
Experiential and Emotional\Evoking religious feelings	16	4
Experiential and Emotional\Comfort	13	7
Ethical and Legal\Guidelines	7	5
Social and Institutional\Participation in public	6	4
Social and Institutional\Group bonding	5	1
Social and Institutional\Community membership	5	2
Practical and Ritual\Re-enactment of myths and stories	4	2
Ethical and Legal\Rules	4	3
Doctrinal and Philosophical\Symbolic aspect of myths	4	4
Ethical and Legal\Judgment of a person	4	4
Practical and Ritual\Ethical insight	3	2
The Material\Religious artefacts	2	1

Source: Van Esch et al., (2014).

4.3 Key Themes Emerging from the Results

Table 6 below summarises the emergent themes and contribution to knowledge that has been achieved as a result of a comparison of the results from both the in-depth interviews and the qualitative analysis from this research (Van Esch et al., 2014). The following approach has been adopted in classifying the contribution to knowledge of this research:

- If a research output did not have a counterpart in the existing literature, it is classified as 'advance to current knowledge'

- If there was a similarity with the existing literature, the research output has been classified as 'addition to current knowledge'

- If there was a direct link with the existing literature, the research output has been classified as 'confirmation of current knowledge'.

Table 6. Summary of contribution to knowledge

Output	Contribution
The dimensions of religion do have application in mass media social marketing campaigns	Advance to current knowledge
While social marketing campaigns use 'preaching' as a communication medium, it tends not to be deliberately linked to religious practices	Addition to current knowledge
Participants employed the dimensions of religion with care to avoid a negative effect on the target audience	Confirmation of current knowledge

Source: Developed for this research.

5. Conclusion

This research explored five practitioners' views on where the dimensions of religion and mass media social marketing campaigns intersect. Several key themes emerge from the results. Firstly, the dimensions of religion do have application in mass media social marketing campaigns and the three most significant dimensions are social and institutional, practical and ritual and doctrinal and philosophical. This theme contributes to an advance in current knowledge. Secondly, participants employed the dimensions of religion with care to avoid a negative effect on the target audience. This is a deliberate intent to mitigate the use of religion in mass media social marketing campaigns. Hence, explicit religion or religious application within a social marketing campaign is considered risky by practitioners. This theme contributes to an addition in current knowledge. Thirdly, while social marketing campaigns use 'preaching', it tends not to be deliberately linked to religious practices. This theme confirms current knowledge. As with most research, this study is limited in a number of ways. In particular, the sample of expert mass media social marketing campaign practitioners is relatively small. This means that the emerging findings from the qualitative analysis require further exploration and validation. In future research the scale of this study might be expanded to more recent social marketing campaigns and, where possible, replicated a number of times before any further implications and conclusions can be made (Remenyi et al., 1998, p. 36).

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Improvement of the Evaluation of Quality of the Integrative Intellectual Resource of the Higher Educational Establishment

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Abstract

The article deals with the analysis of problems and ways of evaluation improvement of the integrative intellectual resource of the modern higher educational establishment. The recommendations on the improvement of indicators aggregate, characterizing the quality of students and teaching staff, were developed and substantiated. The integrative indicators of the intellectual resource evaluation of the higher educational establishment and model of their calculation were offered. It is concluded that it is necessary to improve both organization and estimation of providing the educational services, including the intellectual resource state of the higher educational establishment, as its most important constituent. The offered methods provide evaluation not only of integral indicator of the intellectual resource state, but also of local indicators, *i.e.* different aspects – professor-teaching staff competence, its ability to arrange contact with the audience, ability of students to perceive material, their activity in the process of study and etc. The methods are applied for estimation of the intellectual resource of the higher educational establishments of different countries, as at all peculiarities of national systems of higher professional education, it faces the similar problems.

Keywords: education, educational service, intellectual resource of the higher educational establishments, quality of education, quality of students, integrative indicator of quality evaluation

1. Introduction

The development of productive forces of any country is the key factor of economic stability and competitiveness of the state. The main constituent of the productive forces is a human factor, as only he possesses creative ability and is able to provide efficiency of the use of other elements of resource potential of the country. The quality of labour force and its effectiveness depends on the level of education, both school and higher one. The last is increasingly determined by the intellectual-personality potential of both students and teaching staff.

The purposeful management of the development of this potential, as a condition of increase of education efficiency is impossible without objective estimation of its level.

2. Method

It should be noted that today higher education in Russia is very accessible: it is marked, that 88 % school-graduates enter into higher educational establishments (Livanov & Volkov, 2012). However, high quantitative indicators not always mean the proper quality of providing the educational service and even can enter into contradiction with it. Therefore, it is very important to evaluate factors, affecting the quality, and purposefully influence on them. As in the case of the production process of every product or service, here the quality is under effect of great number of external and internal environment characteristics. However, first of all, this is the state of resources used in educational process. It is impossible to belittle the value of material-technical, informational, and financial provision, without which the process of providing the educational service is impossible. However, as well as in any production, a human factor plays the primary role as all material, financial and other resources are set in motion and used by workers – in this case, by the teaching staff of higher educational establishments. At the ineffective use of these resources, the low competence of teachers, weak ability to pass knowledge, abilities and skills etc. to the students, the result of educational process cannot be satisfactory.

Unlike the ordinary production process, in providing the educational service the human factor plays special part and has brightly expressed specificity. If to examine the production of material products, then its result is determined by the labour productivity and competence of workers, and also the level of guidance. Users can play the indirect role only, affecting on the characteristics and quality of the goods by means of demand level, and the single condition of product obtainment is its payment. In educational process the student is a consumer. However, it is impossible to achieve the necessary result, if the student does not take part in this process of direct, active and creative participation. Thus, here the consumer simultaneously is a co-producer, i.e. so important constituent of human resource, as well as professor-teaching staff (PTS). In addition, it is necessary to mark the role of educational-auxiliary staff (EAS), which, although directly, does not form an educational product, i.e. does not take direct participation in teaching, but create the necessary conditions for the normal flow of educational process. Therefore, in our opinion, it is possible to speak about the integrative intellectual resource of higher educational establishment (Podolskii, 2010; Safonova & Podolskii, 2012). Such resource is the aggregate of initial intellectual-personal potentials of students, professor-teaching staff (PTS) and educational-auxiliary staff (EAS) of higher educational establishments.

The decisive role, which quality of integrative intellectual resource plays in ensuring the required effectiveness for providing the educational service of higher educational establishment puts the question about necessity of its comprehensive estimation, above all things, concerning the students and PTS.

The problem of estimation and raising the level of qualification of the specialists' training, owning the critical and creative thought, able to work out concrete problems, to adjust communications, is not specific for the concrete country, but have the international character. The general nature of problem is confirmed by the results of research conducted by one of the authoritative universities of the world level – Stanford University of the USA.

The results of study showed that:

- The modern criteria of estimation of higher professional education quality in the USA show ability of the students to pass testing successfully, but insufficiently reflect the possession of the problem and critical thought;

- The changing character of work and society requires aiming of the students, first of all, on successful decision of the concrete problems, and also on ability to adjust communications, and effective business intercourse;

- Deep transformation is required, both educational programmes and indicators of the estimation of study results that is a task of state managerial bodies for education all over the world (Criteria for Higher-Quality Assessment, 2013).

The decision of this problem is impossible without creation of the new educational standards, which must include the requirements claimed to intellectual-personal potential of students and teaching staff, as to one of the conditions of mastering the educational material and further successful career.

However, only determination of the requirements to potential of teaching staff and students are not enough for the real growth of education quality. The purposeful perspective and current management of this potential formation is needed. The last one is impossible without analysis over the existence of the level, objective and qualitative estimation.

The authors of research, conducted by the Stanford University also point out on the necessity of formation of the requirement to students' quality and their estimation:

- The skills of higher level, providing the practical application of results of study must be evaluated;

- The abilities of students to communication, planning, modelling, and study must be evaluated, at that in such a way as if these capabilities applied already directly in the practice, but on in the process of education.

- Estimations must carry an international character and be rigid;

- Estimations must be built in such a way that the student could show knowledge, skills and habits, received namely in the process of study, but not reflecting his life experience, accumulated outside the educational establishments (Criteria for Higher-Quality Assessment, 2013).

- Estimations must be accurate and impartial (Criteria for Higher-Quality Assessment, 2013).

Actuality of the examined problem, in particular, for the Russian higher education, is confirmed by both data of official statistics from all higher educational establishments, and results of the conducted researches. On the one part, there is insufficiently high quality of knowledge, skills and habits of the school-leavers, who enter into the higher educational establishments. First of all, it should be noted that the problems with the state of health of

school-leavers that in itself creates obstacles for the effective mastering of educational material and its further application in practice. According to the results of study, conducted by Rappoport I.K. (2011), only 1-2% of senior pupils can be considered absolutely healthy, 68-70% suffer with chronic disease, and 28-30% with functional disorders. 80% of teenagers have medical contraindications to studying these or other specialties.

The indications of advancements of senior pupils are also insufficiently high. The results of passing USE serve the illustration of the insufficient level of advancement. For example, according to the results of passing USE in Primorsk Territory in 2011, 3.5% of the school-leavers of secondary schools didn't receive certificates (Results of USE were summarized in Vladivostok, 2011). The average points of school-leavers of Primorsk Territory in 2011 detected only insignificant positive dynamics in comparison to 2010: 55.13 points compared to 52.47 in the Russian language; 39.19 points compared to 35.86 in mathematics; 54.25 points compared to 53.1 in natural science and etc. (Results of USE were summarized in Primor'e, 2011). It tells about very low level of the required knowledge, skills and habits of the considerable part of school-leavers.

Moreover, according to the results of study, conducted by 11-form senior pupils under the management of Avraamova N. A. (2009), interests, depositions and abilities don't coincide with the chosen profile of the speciality in 40% and 33.4% of 9-form pupils of two forms chosen for conduction of the study, and in 41.2%, 25.9% and 21.4% in 10-form pupils of three studied forms, and in 14% of 11-form pupils. At the same time in 22% of 11-form pupils, the dispositions, abilities and chosen profile of the speciality coincide only partially. Consequently, in enough considerable part of the potential school-leavers (although this share is a little reduced upon the extent of approaching to the school leaving), misfit of the speciality is observed, which they desire to study and real abilities to learning. At such misfit the achievement of the high level of quality of the educational services and results in problematic.

From 10 to 20 % of school leavers of the Russian higher educational establishments at the selection of speciality generally are not guided by the economic motives, and less than a half of school-leaver (33-43 %) are informed about the perspectives of labour employment on the selected speciality (Mogilchak, 2009). Consequently, the majority of school-leavers have no distinct representation about future professional activity and, thus, about conditions, which should be applied in order to become the good specialist.

Thus, the psychophysical characteristics of school-leavers and characteristics of their learning capability, and acquired educational level, and level of motivation are not sufficient for provision of the active participation of students in the process of educational services provision.

On the one part, the characteristics of state are not satisfactory and, on the other part, the other constituent of integrative intellectual resource – professor-teaching staff (PTS). First of all, it is necessary to mark the problems of the qualitative content of the teachers. In Russia the share of PTS aged below forty years makes totally 35 % (Osovetskaya, 2012). The teachers aged from 40-49 years old – 20.6%, 50-59 years old – 23 %, older 60 years old – 21.3 %, average years of PTS makes 45-46 years (Nevinskii, 2010; Osovetskaya, 2012). The average age of doctors and candidates of sciences in the Russian state higher educational establishments is higher – respectively, 61 and 53 years old (Nevinskii, 2010). In the higher educational establishment of Primorsk Territory the share of PTS aged from 30 years old for 2009/10 makes 14 %, 30-39 years old – 21.5%, 40-49 years old – 17.3 %, 50-59 years old – 23.4 %, 60-65 years old – 11.8 %, 66 years old and older – 12 % (Professional education in Primorsk, 2010).

Thus, the reduction both the total number of regular PTS and number of doctors of sciences is observed. For the whole examined period the total number of regular PTS in the higher educational establishments of Primorsk Territory reduced for 15.6 %, including the number of doctors of sciences – for 2.23 %. Some growth was observed only according to the number of candidates of sciences (Zimniaya, 2008; Safonova & Chmyr', 2009).

The share of doctors and candidates of sciences for the examined period increased, however, it happened, mainly, as a result of reduction of the total number of PTS. The share of doctors of sciences in the higher educational establishments of Primorsk Territory remains very low (as it made 9.4 % in 2008/2009 as opposed to 8.11 % in 2005/2006 and as opposed 12.33 % wholly according to the Russian Federation for 2010 without taking in account external part-timers) (Safonova & Chmyr', 2009). It tells about relative insufficient qualification of the teaching staff of the higher educational establishments that also prevents to the high level of organization of the provision of educational services.

Also the fact that the per cent of steady behaviour among external part-timers turns out to be higher than the analogous indicator according to the teaching staff (68.74 % as opposed to 64.45 %) draws attention. Moreover, this excess is achieved at the expense of substantially big share of doctors of sciences (accordingly, 22.7 % as opposed to 12.33 %). Thus, according to the level of qualification the external part-timers turn out to be higher

that the basic PTS of higher educational establishments that also don't tell in favour of the qualification of teaching staff.

It is also important to mark that the typical number of students of the Russian higher educational establishment makes from 6 to 7 ths. students, or nearly 10 students that falls for 1 teacher. This is very big loading counting on 1 unit of PTS, so it is appropriate to draw bigger number of highly-qualified teachers in the staff (including at the expense of external part-timers).

The negative effect on the qualitative characteristics of PTS is made by the factors of insufficient payment of the teachers' labour, reducing the stimuli to obtainment of the academic degree, insufficiently high level of the scientific-research activity of higher educational establishments and training of the scientific staff.

The detected lacks of quality both the student contingent, and teaching staff of the higher educational establishments of the Russian Federation, speak about necessity of conduction of deeper qualitative analysis. Meanwhile, the quality of estimation of the students and teaching staff of the Russian higher educational establishments presently bear one-sided and predominantly qualitative character. Thus, the active methods of state accreditation of the higher educational establishments of Russia use such evaluative indicators as the number of students' contingent, share of students, who mastered the discipline as the basic part of cycle of the federal state educational standard – FSES (no less than 60 %), the share of persons with academic degrees and titles in the regularly PTS, the per cent of teachers who passed the skill extension courses. The estimation on the level of higher educational establishments is executed in the same direction. The emphasis is made on such characteristics as dynamics and structure of admission into the higher educational establishments on the forms of study, budget and contractual financing, competition selection and non-competitive admission, indicators of the intermediary and summary advancement, including the pass of intermediary exam and protection of GQW, indicators of the department staff, including the total number of workers of each department, specific rile of the doctors of sciences, professors and persons with academic degree and title and etc.

Not denying absolute meaningfulness of the resulted descriptions for estimation of the state of student contingent and teaching staff of higher educational establishments, it should be noted that they cannot in a sufficient degree reflect neither quality of the educational process, nor effectiveness of providing the educational services. It is impossible to estimate by them the real level of knowledge's, abilities and skills of a student and possibility of their practical application in professional activity. The effect of service for students is the set of the benefits, obtained by them, for example, certain position occupation at the labour market, material position, social status and etc. In order to attain such effect, it is necessary to estimate, how much the students are satisfied with providing the educational services, what are their requirements and expectations, what shortages, from their point of view, are inherent to the educational process, what weak sides they see as their professional training.

So the necessity of study conduction by the users by means of survey conduction in the form of questionnaire is evident. We conducted the study on the example of four higher educational establishment of Primorsk Territory of the Russian Federation, leaders on the market of educational services – FESU, FESTU, VSUES and TSEU. 300 respondents were asked. The issues concerned the criteria of qualitative educational service, on the students' opinion, the characteristics of the quality of education, motives of selection of the higher educational establishment and speciality, advancement, factors, affecting on the training quality, including qualification and characteristics of teachers, as well as evident usefulness of the service and level of its satisfaction. The respondents were also asked to indicate on their own discretion the weak parts on their training, as future specialists. According to the results of conducted study the following conclusions were made:

- The average advancement is close to the good one, and desire to become highly-qualified specialist serve the predominating factor of such progress;

- The majority of respondents consider obtainment of skills and professional experience for the labour employment and career to be the motivation factor at the choice of higher educational establishment and training direction, and at the same time the prestige of fundamental and general educational knowledge is low;

- The absence of probations and probation programmes, which would be connected directly with the professional practice, are the basic shortages of the educational system of higher educational establishments;

- The usefulness of educational service, mainly, is recognized as high one, but the shortages are also marked;

- The presence of highly-skilled teachers and then the material-technical basis (library, laboratory and etc.) are considered to be the first priority characteristics of the qualitative educational service is recognized;

- The students evaluate skills more in teachers, then – the ability to draw students, and theoretical knowledge are evaluated less;

- As the basic weak side as future specialists the respondents consider the predominance of theoretical knowledge over practical ones, ignorance of business-processes and business-environment, incompliance of content of the educational programmes to the labour market demands;

- Generally, the students give high value to satisfaction with the quality of education, but it is necessary to take into account the insufficient substantiation of putting estimates.

According to the results of study it is necessary to separate the basic negative qualitative characteristics of the educational services of higher educational establishments:

- The students one-sidedly estimate the quality of educational services, underestimate the fundamental constituent of education and its connection with the level of practical skills; the factors of reduction of the fundamental education level, the low labour payment in the scientific-educational sphere, insufficient level of education of many managers of enterprises and organizations affect this regularity;

- The students mark weak compliance of the educational programmes of labour market demands and insufficiency of obtained practical skills and probations, connecting education with professional practice, what was influenced, on the one part, by the destruction of earlier existed connections between enterprises and higher educational establishments and slow tempos of their reproduction, and on the other part – slow tempos of reconstruction of the very system of higher professional education in accordance with the new state of the external environment;

- Educational process is weakly oriented on the competent approach and implementation of innovations, that is, first of all, connected with the relative novelty of this approach, and secondly, with insufficient high level of the scientific-research and innovative activity of the higher educational establishments;

- The students still didn't felt necessity in the new properties of the educational services or pay a little attention to them that, first of all, tells about insufficient expressiveness of these properties, and secondly, about relative low level of students' motivation, and level of awareness of the aims of study.

The system of providing the educational services does not provide expression completeness of the necessary properties to the end, such as an active role of the user, aimed on forming competences and etc. The results of the conducted research also show that the level of organization and real results of providing the educational services need the increase, and for this purpose perfection of their estimation is required, in particular.

It is impossible to substantiate and develop measures on the complex advancement of the intellectual resource of the higher educational establishment, relying only on such characteristics, as a quantity of students and teachers, share of persons with academic degrees, indicators of progress and etc. However, from other side, the high-quality characteristics, such as a competence of teachers, degree of mastering the knowledge's, abilities and skills, desire of students to be taught and similar to them, expressed in the verbal form ("satisfactorily", "good", "insufficient" and etc.), also cannot serve as a basis for comprehensive and objective estimation. It is necessary to formalize and express these characteristics, as far as it is possible, through the concrete indicators. There appear the necessity of substantiation, development and calculation of the local indicators, characterizing the students and teachers of higher educational establishments. Moreover, the total and integral indicator, which characterizes the integrative intellectual resource in the aggregate of its qualities, is necessary. The local indicators of quality must be put in the basis of such calculation.

All above-mentioned conditions the necessity of the improved methodology development for estimation of the intellectual resource quality that must respond to the number of requirements:

- Thorough characteristic: it must cover all basic characteristics of the intellectual resource, so it is necessary to use both quantitative and qualitative indicators;

- Commensurability of indicators: all used indicators must be conducted to the single scale of estimation;

- Integral nature: the total and integral indicator can be calculated on the basis of local indicators;

- The complex usage of the information sources: in the process of estimation both official data of state statistics, higher educational establishments, and data detected in the course of questionnaires of the interesting parties must be used.

Based upon the calculation of these requirements the aggregate of indicators, characterizing the integral intellectual resource of higher educational establishments and model of their calculation is offered (table 1).

Thus, the integral indicator of intellectual resource estimation of the higher educational establishment is offered to be calculated as average arithmetic three local coefficients:

- students' qualities (Q_{st})

- PTS qualities (Q_{pts})

- quality of interaction of teachers with students in the process of study (Q_{int}).

Table 1. Model of calculation of the integral indicators of intellectual resource estimation of the higher educational establishment

Integral indicator of quality estimation of the integrative intellectual resource (Q_{iir})	Local indicators	Calculation way of indicators $Q_{iir} = (Q_{st} + Q_{pts} + Q_{int}) / 3$
1 Coefficient of students' quality (Q_{st})		$Q_{st} = (Q_{cm} + Q_{sm} + Q_{lrn} + Q_d + Q_{pa} + Q_{lc} + Q_{ipv} + Q_{srws} + Q_{advn} + Q_{aeo}) / 10$
	1.1 Coefficient of motivation of higher educational establishment choice by the school-leavers (Q_{cm})	(students' estimation + PTS estimation) / 2
	1.2 Coefficient of motivation of speciality choice by the school-leavers (Q_{sm})	(students' estimation + PTS estimation) / 2
	1.3 Coefficient of students' ability to learn material (Q_{lrn})	(students' estimation + PTS estimation) / 2
	1.4 Coefficient of student's desire to obtain knowledge, skills and habits (Q_d)	(students' estimation + PTS estimation) / 2
	1.5 Coefficient of students' ability to perception of the knowledge transmitted (Q_{pa})	(students' estimation + PTS estimation) / 2
	1.6 Coefficient of completeness of educational material learning (Q_{lc})	(students' estimation + PTS estimation) / 2
	1.7 Coefficient of students' disposition to assertion of the independent point of view (Q_{ipv})	(students' estimation + PTS estimation) / 2
	1.8 Coefficient of students' disposition to the scientific-research work (Q_{srws})	(students' estimation + PTS estimation) / 2
	1.9 Coefficient of students' advancement (Q_{advn})	(students' estimation + PTS estimation) / 2
	1.10 Coefficient of advancement estimation objectivity (Q_{aeo})	(students' estimation + PTS estimation) / 2
2 Coefficient of PTS quality (Q_{pts})		$Q_{pts} = (Q_{comp} + Q_{pk} + Q_{cont} + Q_{ob} + Q_{inn} + Q_{std} + Q_{qual}) / 7$
	2.1 Coefficient of PTS competence (Q_{comp})	(students' estimation + PTS estimation) / 2
	2.2 Coefficient of perceptibility of knowledge, transmitted by teachers (Q_{pk})	(students' estimation + PTS estimation) / 2
	2.3 Coefficient of ability to find contact with audience (Q_{cont})	(students' estimation + PTS estimation) / 2
	2.4 Coefficient of ability to estimate knowledge, skills and habits of student objectively (Q_{ob})	(students' estimation + PTS estimation) / 2
	2.5 Coefficient of ability to apply innovative approaches to study (Q_{inn})	(students' estimation + PTS estimation) / 2
	2.6 Coefficient of steady nature (on the department, speciality training, higher educational establishment) (Q_{std})	relation of actual steady nature to the standard (60%); at steady nature > 60 % is taken as 1
	2.7 Coefficient of average annual per cent of qualification advancement for the last 5 years (Q_{qual})	relation to the actual per cent of qualification advancement to the standard (20 %); at indicator > 20 % is taken as 1
Integral indicator of quality estimation of the integrative intellectual resource of the higher educational establishment (Q_{iir})	Local indicators	Calculation way of indicators $Q_{iir} = (Q_{st} + Q_{pts} + Q_{int}) / 3$
3 Coefficient of interaction quality of teachers with students in the process of study (Q_{int})		(students' estimation + PTS estimation) / 2

The first two coefficients are intermediary integral indicators, also calculated as the average arithmetic local indicators (coefficients) of second level. In its turn, the local indicators are fluctuated in the interval from 0 to 1 and can be determined by two ways:

- As relation of actual indicator to the standard one – it concerns already known indicators, for which the standards are determined by the bodies of management of the country education, for example, in the Russian Federation this is the per cent of steady characteristic and per cent of qualification advancement;

- As the average arithmetic coefficient, obtained in the course of questionnaires of the interested parties (students and PTS).

For calculation of such coefficient the results of questionnaires on the corresponding issues are processed. At that the questionnaire forms suppose possibility of estimation of one or other characteristic of respondents on 5-point scale: from "1" (very bad) to "5" (excellent). According to the results of processing of questionnaire forms the average point for answers on each question is determined and then the coefficient of correspondence of the actual required estimation (maximally possible) is calculated.

According to the required qualitative indicators the maximal possible point is "5", and minimally possible – point "1". However, for the correct calculation of the coefficient, it is necessary that minimal possible values made 0, consequently, the transit of point evaluations in the scale "from 0 to 4" is required. Then, point "4" becomes maximally possible point. So the calculation of compliance coefficients for qualitative indicators is conducted according to the formula:

$$Q_i = (P_a - 1) / 4, \qquad\qquad (1)$$

Where:

Q_i – coefficient of conformity;

P_a – actual obtained average point according to the results of questionnaire conduction.

The estimation of intellectual resource of higher education establishment is indispensable part of integral system of quality evaluation of providing the educational service, so they offer respondents to include the corresponding issues into the general questionnaire forms of students' survey and PTS, developed on the special forms (the questionnaire form of PTS survey developed by us is shown in Appendix A).

Thus, for approbation and calculation of the offered indicators the necessity in additional study appeared in the form of questionnaire of the interested parties. So, we conducted:

- The survey of students of the largest higher educational establishments of Primorsk Territory of the Russian Federation (VSUES, FESU, FESTU and TSEU), totally 600 students were questioned;

- The survey of PTS of the same higher educational establishments; in general complexity, 150 teachers were questioned.

The results of calculation of the integral quality estimation of the intellectual resource of higher educational establishments of Primorsk Territory, in accordance with the conducted study, as it is shown in table 2.

The results of the conducted study show that the integral indicators of quality estimation of intellectual resource of the higher educational establishments of Primorsk Territory of the Russian Federation insufficiently vary according to the different higher educational establishments. It tells about similarity of the problems, which evaluated educational establishments face. The most vulnerable party of the intellectual resource is the quality of students, including the ability to learn the material, learning completeness, and desire to obtain knowledge, skills and habits. The considerable problems also exists in the sphere of PTS quality, including competence, ability to find contact with the audience, objectively evaluation of knowledge, skills and habits of students. There are the most problematic aspects of state of intellectual resource of the higher educational establishment, according to which it is necessary to take decisions and on the level of educational establishments, and on the level of education management bodies.

However, the problem is not exhausted with the estimation of quality of providing the educational service that includes the evaluation of the intellectual resource. It is no less important to estimate the effect obtained from education, actual result of providing the educational service. So the methods of estimation of such results, analogous methods of evaluation of the quality of intellectual resource was developed and tested.

The estimation of the effectiveness of providing the educational services in the studied higher educational establishments was conducted. The official indicators of higher educational establishment activity serve as the information basis, and also the qualitative indicators. There were revealed in the course of survey conduction of

600 students, 150 teachers, 200 graduating students (VSUES, FESU, FESTU and TSEU) and 100 managers of enterprises and organizations, in which 216 school-leavers of these higher educational establishments work during last 3 years.

Table 2. Integral indicators of evaluation of the intellectual resource of higher educational establishments of Primorsk Territory of the Russian Federation

Higher educational establishments	VSUES	FESU	FESTU	TSEU	Wholly on the examined higher educational establishments
Integral indicators of the quality evaluation of the integrative resource of providing the educational services	0.7226	0.716	0.717	0.7348	0.724
1. Coefficient of students' quality	0.6922	0.6789	0.7005	0.681	0.6874
2. Coefficients of PTS quality	0.7955	0.8039	0.822	0.7575	0.7947
3. Coefficient of interaction quality of teachers with students in the process of communication	0.7413	0.7275	0.7288	0.7425	0.7338

We consider especially important the evaluation of the qualities of graduating students for employer, as namely on it the possibility of labour employment and conditions of labour activity of the students in the perspective. The results of employers' survey are represented in Appendix B.

The resulted data show that employers on the whole well estimate the general level of professional training of the graduating students. However, they relatively poor characterize their initiative in work, speed of implementation of professional tasks, potential willingness of young specialists to execute the types of works new for them, that in modern terms is the important shortage. Moreover, it is especially important that the employers critically estimate the prospects of employment of graduating students of last years. It means that at the leaders of enterprises have not high opinions about ability of graduating students of higher educational establishments in the future to become valuable replacement to the present skillful specialists that they doubt in their ability to apply the knowledge obtained in practice successfully. Consequently, it is necessary to expose and remove lacks of educational process in the higher educational establishments, increase the degree of integration of educational establishments with enterprises and scientific-research organizations, implement the innovative methods of teaching, and pay attention to ability of teaching staff effectively to apply these methods.

Based upon detected quantitative and qualitative local indicators in the higher educational establishments, their transform into the coefficients of compliance and offered model of calculation, the final integral indicators of the effectiveness of providing educational services to the required level on each of the studied higher educational establishments and whole set of higher educational establishments were determined (Table 3).

Table 3. Integral indicators of effectiveness of providing educational services and factors, determining it

Higher educational establishments / Factors effecting on the integral indicator	VSUES	FESU	FESTU	TSEU	Wholly on the studied higher educational establishments
1. Coefficient of the state attestation results	0.7482	0.7309	0.7675	0.7765	0.7583
2. Coefficient of possessing the necessary competences by the graduating students	0.7249	0.7045	0.7192	0.7243	0.7172
3. Coefficient of prestige of the diploma on the speciality obtained	0.728	0.7108	0.7238	0.727	0.721
4. Coefficient of labour employment of the graduating students	0.7393	0.6334	0.6277	0.7775	0.7541
5. Coefficients of involvement of knowledge, skills and habits in professional activity of the graduating students	0.6495	0.6455	0.6545	0.673	0.6535
6. Coefficient of the professional characteristics of the graduating students	0.6894	0.7773	0.6869	0.6908	0.6857
The integral indicator of the effectiveness of providing the educational services	0.7124	0.6981	0.6919	0.7283	0.7147

The data of Table 3 show that the most problematic characteristics of effectiveness of providing the educational services of the studied higher educational establishments are:

- Involvements of knowledge, skills and habits in the professional activity of the graduating students;

- Professional characteristics of graduating students.

The worst coefficients were obtained on these two indicators.

Consequently, namely in this sphere most important for the graduating students – ability to employ on the work on the beneficial conditions and effectively apply the knowledge obtained in the course of study in practice – the most evident shortages are marked.

So it is necessary to improve both organization and estimation of providing the educational services, including the intellectual resource state of the higher educational establishment, as its most important constituent. The offered methods provide evaluation not only integral indicator of the intellectual resource state, but also local indicators, i.e. different aspects – PTS competence, its ability to arrange contact with the audience, ability of students to perceive material, their activity in the process of study and etc. The methods are applied for estimation of the intellectual resource of the higher educational establishments of different countries, as at all peculiarities of national systems of higher professional education, it faces the similar problems.

3. Results

Thus, the educational management bodies of different states, the higher educational establishments and their separate subdivisions, up to the concrete teachers, can find and purposefully to correct "narrow places", weal parties both the students and PTS. This will promote to the increase of quality and effectiveness of providing the educational services that finally positively reflect on the state of economy and society.

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Appendix A

Questionnaire form "The survey of professor-teaching staff of the higher educational establishments of Primorsk Territory"

<div align="center">Dear teachers!</div>

Within the project framework of studying the state of educational services in higher educational establishments in Primorsk Territory, the survey of teachers is conducted. The results of study will serve exclusively to the scientific purposes. The data obtained from you will remain anonymous. The survey completely bears voluntary character, but the more people will be asked, the more reliable the results of study will be. We'll ask you to read issues attentively and express your opinion. Any opinion is important for us, and we are interested in your sincerity!

1. Name of higher educational establishment, which you work for:

_____

2. Speciality of students, you teach _____

3. Disciplines taught_____

4. Your work experience in these disciplines _____

5. Estimate according to 5-point scale, how much the following characteristics of the educational service satisfy you (from 1 – absolutely don't satisfy to 5 – completely satisfy):

    5.1 explanation of the material by teachers;

    5.2 ability of students to perception of the knowledge rendered;

    5.3 completeness of mastering the educational material by the students;

    5.4 attentiveness degree, paid to the students by the teachers;

    5.5 presence of individual approach to each student;

    5.6 interest of students to the educational process;

    5.7 presence of necessary working atmosphere on the classes;

    5.8   time, spent by the students on the educational process;

    5.9 share of tasks, which are given by the students on the independent work;

    5.10 degree of psychological satisfaction by the process of education on the part of students;

    5.11 provision of auditorium classes with necessary equipment and office automation;

    5.12 provision of auditorium classes with information technologies;

    5.13 possibility of discussion organization and expression of the own point of view;

    5.14 degree of practical significance of the educational material;

    5.15 objectiveness of estimation of the knowledge, skills and habits of the students;

    5.16 results of the independent works of students;

    5.17 competence of the profession-teaching staff;

    5.18 requirements of teachers to the students, their compliance to the level of teaching;

    5.19 new forms of educational process organization;

    5.20 level of educational programmes on profile disciplines;

    5.21 level of educational programmes on general educational disciplines;

    5.22 renewal of educational programmes on the profile disciplines;

    5.23 renewal of educational programmes on the general educational disciplines;

    5.24 sufficiency of the educational literature on profile disciplines;

    5.25 sufficiency of the educational literature on the general educational disciplines;

    5.26 level of educational literature on the profile disciplines;

    5.27 level of the educational literature on generally educational disciplines;

    5.28 renewal of educational literature on the profile disciplines;

    5.29 renewal of educational literature on the generally educational disciplines;

5.30 sufficiency of the methodical specifications on the profile disciplines;

5.31 sufficiency of the methodical specifications on the general educational disciplines;

5.32 level of the methodical specifications on the profile disciplines;

5.33 level of the methodical specifications on the generally educational disciplines;

5.34 renewal of the methodical specifications on the profile disciplines;

5.35 renewal of the methodical specifications on the general educational disciplines;

5.36 level of execution of course-works by the students;

5.37 level of execution of graduation thesis by the students;

5.38 level of execution of other scientific works by the students (including theses of the scientific conferences, scientific articles, participation in the scientific and production projects of the higher educational establishments);

5.39 objectiveness of the estimation of the course-works;

5.40 objectiveness of the estimation of graduation theses;

5.41 objectiveness of the estimation of other scientific works of students;

5.42 level of professional experience, obtained by the students in the course of production practice;

5.43 level of execution of reports about production practice by the students;

5.44 objectiveness of the estimation of production practice reports;

5.45 level of professional experience, obtained by the students in the course of prediploma practice;

5.46 level of execution of the prediploma practice reports;

5.47 objective estimation of prediploma practice reports;

5.48 quality of innovation projects, made in the course of educational process for the last 3 years;

5.49 level of innovative scientific projects, made in the course of educational process;

5.50 level of production innovation activity of the higher educational establishment;

5.51 state of the material-technical provision of the educational process (equipment, office automation, and etc.), including its:

5.51.1 sufficiency;

5.51.2 functionality;

5.51.3 reliability;

5.51.4 convenience of usage in the educational process;

5.52 state of information provision of the educational process (computer programme, other information technologies), including its:

5.52.1 sufficiency;

5.52.2 functionality;

5.52.3 reliability;

5.52.4 convenience of usage in the educational process;

5.53 state of educational process management, including:

5.53.1 management of higher educational establishment on the whole;

5.53.2 activity coordination of subdivisions, including the departments;

5.53.3 usage of financial resources by the higher educational establishment;

5.53.4 management on the level of direction (speciality);

5.53.5 management on the level of department;

5.54 motivation of the choice of higher educational establishment by the university entrants;

5.55 motivation of the choice of speciality by the university entrants;

5.56 ability of students to learn the material;

5.57 desire of students to obtain knowledge, skills and habits;

5.58 disposition of students to protection of the independent point of view;

5.59 disposition of students to the scientific-research work;

5.60 progress of students;

5.61 objectiveness of the progress estimation;

5.62 perception of knowledge, rendered by the teachers;

5.63 ability of teachers to find contact with the audience;

5.64 ability of teachers to apply innovation approaches to study;

5.65 level of interaction of teachers with students in the process of study;

5.66 level of mastering the professional competences by the graduating students;

5.67 level of mastering the general cultural competences by the graduating students;

5.68 prestige of diploma on the speciality obtained;

5.69 financial accessibility of the fee-paying educational service for the majority of students;

5.70 sufficiency of funds, obtained from provision of the fee-paying educational services for higher educational establishments;

5.71 sufficiency of budget financing for provision of high level of services provided;

5.72 sufficiency of funds, obtained owing to the additional scientific and production activity, for development and improvement of the service by the higher educational establishment;

5.73 share of students, who study on the fee-paying basis;

5.74 effect of the fee-paying study on its character and its results.

6. Your notes and offers (not obligatory for filling)

_____
_____
_____

Thank you for participation in survey!

Appendix B

Results of employers' survey

Quality of works

Points	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	3	18	49	81	65	3.87	0.7175
Including on all higher educational establishments:							
VSUES	1	4	13	21	17	3.88	0.72
FESU	0	7	16	25	20	3.85	0.7125
FESTU	1	4	10	17	13	3.82	0.705
TSEU	1	3	10	18	15	3.92	0.73

Quickness rate of works executed

Points	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	7	24	63	69	53	3.63	0.6575
Including on all higher educational establishments:							
VSUES	2	7	15	17	15	3.64	0.66
FESU	2	9	19	22	16	3.6	0.65
FESTU	0	5	15	14	11	3.69	0.6725
TSEU	3	3	14	16	11	3.62	0.655

Initiative rate of workers

Points	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	10	29	68	70	39	3.46	0.615
Including on all higher educational establishments:							
VSUES	2	8	18	18	10	3.46	0.615
FESU	4	10	22	20	12	3.38	0.595
FESTU	2	6	12	16	9	3.53	0.6325
TSEU	2	5	16	16	8	3.49	0.6225

Level of general professional training

Points	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	4	9	45	72	86	4.05	0.7625
Including on all higher educational establishments:							
VSUES	2	3	11	18	22	3.98	0.745
FESU	0	4	17	22	25	4	0.75
FESTU	2	1	9	15	18	4.02	0.755
TSEU	0	1	8	17	21	4.23	0.8075

Potential readiness to execution of the new types of work

Points	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	7	16	62	81	50	3.7	0.675
Including on all higher educational establishments:							
VSUES	1	4	16	21	14	3.77	0.6925
FESU	3	6	20	24	15	3.62	0.655
FESTU	1	3	12	18	11	3.78	0.695
TSEU	2	3	14	18	10	3.66	0.665

Prestige of diploma on the speciality received

Point	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	3	8	27	30	32	3.8	0.7

Perspectives of labour employment of the graduating students on speciality

Points	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	3	12	28	39	18	3.57	0.6425

Degree of involvement of the knowledge, skills and habits in the professional activity obtained in the course of study

Points	1	2	3	4	5	Average point	Coefficient of conformity
Totally evaluated graduating students	1	6	17	42	34	4.02	0.755

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New Geopolitical Role of Central Asia within Foreign Policy Interests of World Powers

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Abstract

As a result of the fall of the Soviet Union, the leading global and regional players have started their occupation of the geopolitical and geo-economical vacuum in Central Asia. This article is targeted to trace the competition growth with regard to establishment of control over the Central Asian region by global players, in particular, by Russia, seeking to return Central Asia, and China, striving to entangle the region into its orbit of influence. Within two post-Soviet decades, the world players still have not managed to develop a general cooperation scheme against each other in Central Asia. Although, at the beginning of the XXI century, Russia and China attempted to build up a scheme of the Russian-Chinese-Central Asian cooperation within the Shanghai Cooperation Organization, however this scheme cannot be called effective due to the absence of common vision of long-term interests in Russia, China and Central Asian countries. As it seems, even at very short by historical standards period of time, after the fall of the Soviet Union we observe clear interests in the Central Asian's policies of Russia and China.

Keywords: Central Asia, geopolitics, Russian foreign policy, Chinese foreign policy, Eurasian Union, Shanghai Cooperation Organization

1. Introduction

Historically, the region of Central Asia, due to its geographical position from ancient times, has played a significant role in international relations. Considering the fact that a substantive section of the Great Silk Road since the II century B.C. crossed the Region linking the East and the West, the Central Asia saw a very active development of political, trade and cultural relations. Through millenniums, the Region has demonstrated an active development in science, conducting large-scale commercial transactions, conclusion of diplomatic and military alliances.

For the whole period of the Great Silk Road from the II century B.C. to the XV century A.D., interests of various states such as China, Persia, Turkic Kaganate, Mongol Empire, Golden Horde and Tamerlane's Empire were intertwining in Central Asia.

In the XV-XVI centuries, along with strengthening of the Russian nation, Moscow had started to establish trade and diplomatic contacts with countries located in Central Asia.

In particular, the relations were actively developing between Moscow and the Kazakh Khanate. The roots of the Kazakh-Russian relations have a long-standing history. The relations became deeper after joining the Kazan (1552), Astrakhan (1556) khanates and peoples of the Volga region to Russia. The Russian state was interested in relations with the Kazakh Khanate with a view to ensure safety of traditional roads crossing the Kazakh Khanate and leading to Central Asia. In turn, the Kazakh Khanate was seeking an ally in Russia to struggle with the Central Asian khanates and Dzhungars. The Russian Empire gradually increasing its expansion in Central Asia considered Central Asia as a region where it could get cotton and access to the Indian Ocean.

The beginning of the rivalry between the British and Russian empires in Central Asia can be considered to be in 1819, with the opening of the Russian mission in Khiva and in 1820, with the opening of the British mission in Bukhara. The rivalry existed until 1907 when the Anglo-Russian agreement was signed fixing the boundaries and areas of influence. Russia obtained a strong presence in Central Asia while the British Empire secured its land in India from Russian expansion. Afghanistan, by mutual consent, became a buffer country dividing the

areas of influence. The XVIII century saw the final accession of Kazakh zhuzes to the tsarist Russia but it was hardly voluntarily. National-liberation uprisings repeatedly burst out in Kazakh steppe but were brutally crushed by punitive forces. Ashgabat, Bukhara Emirate, Khiva and Kokand Khanates were conquered in the second half of the XIX century.

With the entry to the Russian Empire and later to the Soviet Union, peoples of Central Asia entered a new development stage. However, due to super-centralized control from Moscow and closed regime, peoples of Central Asia have become hermetically isolated from their southern neighbors with whom they share extreme antique economic, spiritual and cultural ties.

2. Method

The methodological bases of this work are both general and special methods of scientific research. The use of these methods allowed to explore the nature of analyzed geopolitical interests of world powers in the region of Central Asia. Using the special methods of scientific research methodology of political science, such as content analysis, event analysis and comparative approach it was made an attempt to identify the causal relationship between the geopolitical interests of world powers and their policies in the region of Central Asia. The predictive analytics also had the methodological significance for disclosure the topic.

3. Results

Upon taking office by Vladimir Putin in 2000, the policy of Russia has been aimed at comprehensive strengthening of its international position. The Russian basic targets in Central Asia include a return of the region to the Russian geopolitical space, playing a key role in ensuring safety in the region and weakening invasion of foreign capital into the economy of the region and influence of other global countries specifically Islamic states. Central Asia is considered by Russia as a zone of geopolitical interests, separating it from many hazardous "hot spots" in the Middle East and South Asia.

Russia has its own economic interests in Central Asia striving to maintain rather capacious and geographically close market for export of Russian industrial products. The region plays a very important role as a traditional supplier of unique natural resources and non-ferrous metal products. Huge reserves of oil and gas in Kazakhstan, Turkmenistan and Uzbekistan are the essential factor that attracts attention of all world powers including the Russian Federation. Russia as a major exporter of gas to Europe and with economy which is basically built on the export of energy resources is not interested in competing in transportation of energy resources from Central Asia to Europe and global markets bypassing its territory. All these factors required a close encounter both in political and economic terms of Central Asian countries and Russia.

Establishment of the Eurasian Economic Community in 2000 was the practical implementation of the policy where Kazakhstan, Kyrgyzstan and Tajikistan are the members in addition to Russia and Belarus. The Community is basically aimed at the effective promotion by its member countries of the process of forming the Customs Union and the Single Economic Area as well as deepening of integration in economic and humanitarian areas (2013).

Since 2006, we can observe the intensification of interstate relations when the Interstate Council of the Eurasian Economic Community resolved to establish the Customs Union composed of Belarus, Russia and Kazakhstan. In 2007, the agreement for establishment of the single customs area and the Customs Union was signed in Dushanbe whereunder the Russia, Kazakhstan and Belarus undertook a commitment to establish the Customs Union (2007). In 2009, the informal summit in Almaty approved the Action Plan for 2010-2011 for the establishment of the Single Economic Area of three countries. In 2010, Russia, Belarus and Kazakhstan signed the agreement to establish the Single Economic Area. The same year, in December, the summit of the Eurasian Economic Community in Moscow reached agreement to establish the Eurasian Union on the basis of the Single Economic Area composed of Belarus, Kazakhstan and Russia (2010). The expansion of the future Eurasian Economic Union through the entry of new member states is quite a realistic prospect since Kyrgyzstan made a formal petition for entering as well as Tajikistan is involved in preparatory activities.

We may see the highlighted key points, vision of problems and prospects for further development of integration processes within the Eurasian Union in publications of the Presidents of three countries. So Nursultan Nazarbayev, President of the Republic of Kazakhstan in his publications "Eurasian Union: Ideas, Practice, Perspective, 1994-1997" and "Eurasian Union: From an Idea to the History of the Future" highlights that "economic interests, rather than abstract geopolitical slogans are the core engine of integration processes" (Nazarbayev, 2011; 1997). Alexander Lukashenko, President of the Republic of Belarus in his publication "Fate of Our Integration" considers the political future of the Eurasian Union as a "counterweight to the crisis", as "a

right step to stable peace ... through establishment of defensive alliances" (Lukashenko, 2011). Vladimir Putin, President of the Russian Federation in the article "A New Integration Project for Eurasia - a Future Born Today" says that "construction of the Customs Union and the Single Economic Area creates a foundation for establishment of the Eurasian Economic Union in the future... we do not stop on this and set an ambitious goal: enter the next higher level of integration – the Eurasian Union" (Putin, 2011).

Therefore, the announcement by Putin in September 2011 of the course towards the Eurasian Union means that inconsistency of the Russian foreign policy comes to an end. And, consequently, the era of "multi-vector" in foreign policy orientation of many countries of the region comes to an end (Laumulin, 2012).

China with its intensively developing economy could not draw its attention to the Central Asian region by virtue of many reasons. Since 1993, China became a net importer of oil and is more and more challenged with needs for energy resources by virtue of its high economic growth. With a view to resolve the problem, China, along with development of its major three deposits in Xinjiang Uygur Autonomous Region and continental shelf in the South China Sea, has been actively involved in implementation of major projects in countries of the Persian Gulf, Papua New Guinea, Sudan, Thailand, Canada and now in Kazakhstan. Therefore, the region of Central Asia holds a prominent place in Chinese plans to diversify energy sources. Upon construction of oil and gas pipelines from this energy-rich region to China, the importance of Central Asia to China increased dramatically.

Another reason why China expressed a special interest to Central Asia after the fall of the USSR included the preservation of stability in the region, prevention of Islamic radicalism since the region borders to Xinjiang populated at that time by peoples of Turkic origination and practicing the Islam. China along with the implementation of the systematic program for resettlement of ethnic Han Chinese to the eastern province signed agreements seeking support in fight against "ethnic separatism" with countries of Central Asian and Russia.

We should also mention the transportation and logistics opportunities of Central Asia through which Chinese products today are delivered not only to markets of Central Asia but further to Russia, countries of the Middle East and Europe. In parallel, the network was created ensuring the supply of energy resources from Central Asia to China.

China is interested in preservation of geopolitical balance in the region of Central Asia. Since 1997, Chinese conceptual documents with regard to foreign policy are considering Central Asia as a "strategic rear" of China. Under this concept, the targets of Chinese policies in the region are formulated in the context of achieving two goals. On the one hand, keeping Central Asia as a region composed of "small divided countries and non-threatening to China" "buffer space" between China and Russia, on the other hand – preventing the emergence of a "dominant country" in Central Asia capable to get other countries of the region under its sole control (Syroezhkin, 2013).

In this regard, the establishment of the Eurasian Union is considered by China as a serious challenge to China, comparable to challenge of the Soviet time. Currently, China through the SCO has raised the level of influence, and if the idea of Putin is realized, the SCO will be inevitably weakened and may even disappear. It does not meet strategic interests of China for control and stabilization of Asia. China considers the Eurasian Union solely as a geopolitical project aimed at reanimation of the former Soviet Union for the purpose of economic and political containment and counterstand to China and non-regional powers.

The United States of America which in 90s was actively supporting the establishment of new independent states of the former Soviet Union, initially demonstrated interest to Central Asia with a view to strengthen its statehood, gave an active economic support, were interested in the region with heavy reserves of energy resources. September 11, 2001 became a new stage in revitalization of the role of Central Asia for USA. This region has become a basis for transit of troops, innocent goods from the USA, NATO member countries to Afghanistan. At the present, due to troop pullout from Afghanistan, the USA desires to use the economic potential of the region for recovery of post-war Afghanistan. The USA proposes the project of the Great Central Asia and Great Silk Road where under it is offered to include Afghanistan to economic relations of the region.

The USA considered to establish the Shanghai Group in 1996 basically as a Chinese initiative to strengthen relations with its western neighbors and to expand its influence in Central Asia to the detriment of Russia. Therefore, Washington did not considered the establishment of the Shanghai Group as a direct threat to its own interests in the region. However, the establishment of the SCO in 2001 caused more anxiety reactions in the USA since the Organization is considered as a new round of political rapprochement between Russia and China (Troush, 2006).

Large-scale Chinese-Russian military training exercises in Shandong province in July 2005 (Peace Mission 2005) under the auspices of the SCO also raised concerns of many American observers. These exercises were intended to demonstrate the growing might of the People's Liberation Army of China as well as concerted actions of China and Russia in prevention of any "color revolutions" (Wishnick, 2005).

Evolution of rapprochement between Russia and China including in the framework of the SCO convinced most American liberal analysts to respond adequately. For example, Ted Carpenter, Director of the Libertarian Cato Institute said in 2006: "Until now, the United States was too careless with regard to the Russian-Chinese rapprochement" (Pan, 2006).

Since 2005, US analysts started to be concerned of two opposite trends: first, the intention of Russia to regain its influence in Central Asia, and secondly, China's ambitions to use the SCO as a lever to increase its influence in the region.

Russian factor still plays a great importance in relations of the United States with Central Asian countries. According to Jim Nicola, an expert on Russia and Central Asia of the US Congressional Research Service who was published in a 2007 report, the main concern of Washington regarding the Central Asian countries is their potential to stay really as independent states in particular in relation to Moscow:

"Actually all US analysts agree that Russia's actions should be clearly monitored in order to ensure that the independence of the Central Asian countries is not in danger" (Nichol, 2007).

At the same time, the report indicates that the US is concerned about the growth of anti-Americanism in Central Asia:

"In recent times Russia has activated its efforts against US influence in Central Asia, stimulating the Central Asian countries to develop economic and strategic relations with Russia and limit such ties with the United States" (Wishnick, 2005).

The European Union has initially pursued an active policy to establish trade and economic relations with the region and by far is the largest trading partner of most countries in the region. The EU's policy towards the countries of Central Asia in the 90's had differed by prevalence in relation to rhetoric of human rights, democratization of political regimes. Later, however, this policy was replaced by a different tactic. Since the EU pursues the policy of diversification of energy supplies, the region of Central Asia is very important in terms of participation in production and transportation of raw materials to Europe bypassing the Russia, which sets the tone in supply of energy to Europe. The EU understands that Russia and China do not make such demands to current regimes in Central Asia and yet successfully cooperates with them in order to implement their pragmatic interests. The EU therefore diminished its idealistic views on democratization and human rights in favor of their pragmatic interests.

The European Union also, like USA, closely monitors the growing political convergence between Russia and China in Central Asia, especially after Andijan events in May 2005. The Europeans consider a similarity of positions of two powers in Central Asia as one of factors of interest revival of Russia to the SCO.

Nevertheless, the majority of European experts as a rule emphasizes the limits of such bilateral cooperation and multilateral solidarity within the SCO.

So, for example Professor Niklas Norling from Swedish University of Uppsala emphasizes the differing interests of Beijing and Moscow in energy sector of Central Asia as well as "civilizational" perspective (Norling, 2007).

Mr. Bobo Lo from Royal Institute of International Affairs in London and Frank Umbach from German Society for Foreign Policy in Berlin also point at the Chinese growing need to import oil and gas from Central Asia as a source of friction with Russia (Lo, 2004).

Another barrier to spread the influence of China in Central Asia includes the existing control by Russia over the system of oil and gas pipelines in the region and export infrastructure. Despite the existing pipeline projects of Beijing, Moscow still has a prominent position in this sector and in the nearest future it will be difficult to compete with such position. This basic reality also has an impact on Chinese-Russian relations in Central Asia.

4. Discussion

Upon the fall of the Soviet Union, the Central Asia again became the focus of geopolitical interests of world powers. If in early XIX and XX centuries, the Russian and British empires were the major competing forces in the region, now we observe the intertwined interests of various global players, in particular such global powers as the Russian Federation and China which have long borders with Central Asian countries.

With adoption by Russia, Ukraine and Belarus in Bialowieza Forest of the Decree dated 8 December 1991 for liquidation of the Soviet Union and establishment of new independent states, Central Asia has faced a geopolitical vacuum which sooner or later had to be occupied. At the same time, the region is still considered by other powers as the zone of geopolitical influence of the Russia. But, Russia in early 90s, \ suffered a deep economic crisis and with internal acute problems its attention to the Central Asian states obviously weakened. Moreover, the leaders of Russia at that time were too keen on the idea of establishing a "strategic partnership" with the West. Therefore, the internal problems and weakening of economic opportunities have prevented Russia to compete with other global players that had their interests in Central Asia and started to actively promote them.

In this manner, at the end of the XX – beginning of the XXI centuries, Central Asia became an arena of active geopolitical and geo-economic competition of world powers. In contrast to the XIX century, when the troops were sent to the region, now the investments are allocated. Investors struggle for access to energy resources of the region, particular direction of oil and gas pipelines, market outlets, foreign policy and foreign economic orientation of the Central Asian countries.

Following independence in 1991 and entry to the UN, the young Central Asian countries became sovereign international entities. Having obtained the opportunity of selection of its own development path, the sovereign states were actively involved in global economic ties focusing on strengthening international economic relations with such leading players as the USA, EU and Asia Pacific region.

Energy, primarily Kazakhstani oil and Turkmenistani gas, is one of the most important factors determining the new geopolitical role of the region. Even today, with construction of oil and gas pipelines in the western and eastern areas, the economic, energy and transport role of Central Asia demonstrates a growth. The USA, European countries, China, Russia, oil and gas companies being the core investors play a major role in the energy sector of Central Asia.

The location at the junction of the Eurasian railways is another important factor of the regional attractiveness. Through Iran, it has an access to the Persian Gulf, through Afghanistan and Pakistan to the Indian Ocean, through China to the Asia-Pacific region.

After implementation of the project "New Great Silk Road", commissioning of the Trans-Asian railway main line, international vehicle road corridor "Western Europe - Western China", development of air traffic, appearance in the future of additional export oil and gas pipelines, the geopolitical and geo-economic importance of Central Asia will be enhanced since the Region will face heavy traffic flows from East to West from the Asia-Pacific region to Europe and Western Asia and back.

In this context, the world powers more and more clearly define the contours of geopolitical and geo-economic interests in the region and strongly are seeking to spread and firmly fix their influence in Central Asia.

5. Conclusion

The new geopolitical role of the Central Asian countries as against the former one is determined by the fact that they are very active participants in modern international relations. In the past, the state formations in the region that lost their independence as a result of expansion of the Russian Empire were more the objects than the subjects of the historical process. The diplomacy of the Central Asian countries despite its relative youth is increasingly and confidently cooperating with experienced Russian and Chinese diplomacies with old traditions that have geopolitical interests in the region.

The strategic importance of the region is that it borders two of the five nuclear-weapon states in the world – Russia and China and has an access to the Persian Gulf and the Indian Ocean through Iran and Afghanistan.

After implementation of the project "New Great Silk Road", commissioning of the Trans-Asian railway main line, international vehicle road corridor "Western Europe - Western China", development of air traffic, appearance in the future of additional export oil and gas pipelines, the geopolitical and geo-economic importance of Central Asia will be enhanced since the Region will face heavy traffic flows from East to West from the Asia-Pacific region to Europe and Western Asia and back. Since 2015, the Eurasian Economic Union will be launched in the region that implies even greater convergence of the economies of the region with Russia. On the other hand, the European Union is expanding its trade and economic relations with the region as evidenced by the anticipated signing of the Agreement for expanded partnership and cooperation with the Republic of Kazakhstan. Global players are interested in the presence in the region and close cooperation with the Central Asian countries. All this suggests the prospect of further studies on this subject because, since the launch of the Eurasian Economic Union in 2015, many experts predict the end of the multi-vector policy of the Central Asian countries and increasingly close rapprochement with the Russian Federation.

In this regard, the competition is increasing between major geopolitical players in the region – Russia and China. So, China is basically aimed at preservation of Central Asia as a "strategic rear", expansion of access to hydrocarbon resources in the region, development of infrastructure for transportation of these resources to China and supply of products made in China to markets of Central Asia, Russia and Europe. Russia in turn considers Central Asia as a region that traditionally has been a zone of Russian influence. That is why all of these integration initiatives of Russia such as the Customs Union and the Single Economic Area and the Eurasian Economic Union are aimed at strengthening the Russia's influence and economic presence in the post-Soviet space and in particular in Central Asia.

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The Role of the Perceived Justice in the Relationship between Human Resource Management Practices and Knowledge Sharing: A Study of Malaysian Universities Lecturers

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1. Introduction

Knowledge sharing is one of the important factors in knowledge-based industries due to the fact that knowledge sharing can result in knowledge creation (Noanaka, Umemoto, & Seonoo, 1996) and innovation (Kamsak & Bulutlar, 2010; Wang & Wang, 2012). Thus, by considering that innovation can impact different dimensions of performance (financial and non-financial), (Cohen, 2010), increasing knowledge sharing is one of the necessities in any type of company. Knowledge sharing can be relevant to individual tendency for donating and collecting knowledge (Van Den Hoof & De Ridder, 2004)

Different researches have been conducted about influential factors on knowledge sharing. Such researches have emphasized on environmental factors, motivational factors, individual factors, etc. (Wang & Noe, 2010; Li & Poon, 2011) that among such factors, many different theories such as social capital, resource-based review (RBV) and social exchange can be observed. Through narrowing these factors according to available concepts in human resource management (HRM) and organizational behavior, HRM practices have key role on increasing knowledge sharing. HRM practices have strategic contribution (Lengnick-Hall, Lengnick-Hall, Andrade, & Drake, 2009) as well as previous researches (Huselid, 1995; Wright, Gardner, & Moynihan, 2003; Chen & Huang, 2009) regarding RBV theory have the capability to impact employee behavior in case of sharing knowledge. Fong, Ooi, Tan, and Lee (2011), studied impact of HRM practices (training, staffing, performance appraisal, team work and reward) on knowledge sharing as gap of previous researches. Results demonstrated that HRM practices have a key role on improving knowledge sharing.

If we consider talent as one of the knowledge resources or as a scope for dependent researches to impact of talent on sharing knowledge, so according to conducted research by Gelen et al. (2013) role of justice will be highlighted in case of relationship between HRM practices and knowledge sharing. It will result to the fact that existed interaction between equity theory (Pritchard, 1969) and underlying theories of researches will become important. There was little focus about this subject in previous researches. However, Khanmohammdi (2014) also emphasized on moderating role of justice in case of relationship between IT, management support, training and reward and knowledge sharing.

Universities of Malaysia currently attempt to improve their position in global ranking. One of the helpful aspects for improving scientific level of universities is utilizing of high potential of lecturers. In this regard, improving knowledge sharing level among lecturers results in science creation (Khanomohammadi, 2014).

Through considering lecturers as talents and also importance of knowledge sharing among them, it is necessary to clarify role of HRM practices and justice. Hence, this research aims to examine what is the relationship between HRM practices, perceived justice, and knowledge sharing in the Malaysian universities.

2. Hypotheses Development

2.1 HRM Practices and Knowledge Sharing

Different HRM practices have been utilized by many famous researchers. Most of these researches attempted to demonstrate the fact that effective implementation of HRM practices can impact employee performance (Khatibi, Asgharian, Seyed, & Manafi, 2012; Saif & Satrawi, 2013) and organizational performance (Huselid, 1995;

Wright et al., 2003; Snape & Redman, 2010). Most helpful HRM practices are training, staffing, performance appraisal and reward and compensation. In most of researches impact of HRM practices on performance have been supported by RBV theory (Barney, 1996). However, other relevant theories exists which will be discussed in following sections.

2.1.1 Training

Based on statements of Noe, Hollenbeck, Gerhart, and Noe (2008) and Masood (2010), training is known as a well planned attempt which is designed by company in order to assist its members in process of learning for competencies which are job related for example skills, knowledge behaviors which are crucial for job performance of individuals to be successful. Moreover, development is formal education, enhancement of job experience, personality assessment and those abilities which contribute employees to be prepared in future (Noe et al., 2008).Activities related to training have positive impact on organizational performance (Valle et al., 2009). Training is critical in knowledge sharing context because employees have a chance to exchange ideas and information for formal sessions of training or existed informal interactions among two or more persons (Ipe, 2003).

Besides formal training, learning and informal training are also critical in case of sharing knowledge as mentioned by Ramirez and Li (2009) who asserted that "external learning occurs while staffs are communicating with supply chain". Also knowledge transfer can take place via suppliers while staffs are undergoing training in order to use modern and new equipment. In turn employees will teach their customers. This can be considered as an example of sharing knowledge and teaching (Ramirez & Li, 2009). Bottom line is a training which can contribute for dealing with obstacles in sharing knowledge process for example lack of motivation in learners, integration capability and low absorption capacity (Rhodes et al., 2008).

In research conducted by Low and Mohammed (2005), Fong et al. (2011) Asgharian et al. (2013) and Khanmohammadi (2014) training was considered as one of the influential factors on knowledge sharing. Lecturers in universities can be trained and become familiar with knowledge sharing advantages in order to become more interested to donate and collect knowledge. Therefore, the first hypothesis of this research is as follows:

H1: Training has a significant and positive impact on knowledge sharing

2.1.2 Staffing

In any organization recruitment and selection are two core activities of HRM staffing function done in order to achieve proper quality and quantity employees. A firm which is recruiting in general will attempt to match knowledge, skills and attitudes of candidates (KSAs) to the requirements and specifications of position or job (Chatman, 1991).

The person who recruits communicates to all the candidates about job specification and job description for the offered position to attract those qualified applicants. Moreover, recruiters should make sure that there exist person-organization (P-O) fit among candidate and firm where beliefs, values and candidate's characteristics are aligned with organizational culture and environment of the firm (Chatman, 1991).

When P-O fit of new employee is consistent with new working context and relationship then high teamwork and individual performance will be expected which in turn results in better total organizational performance (Goodman & Svyantek, 1999). The better the P-O fit, the faster the new employees will adapt to new working context and knowledge interchange between new and old members of organization will occur (Chatman, 1991). This contributes to improve competitive edge of an organization.

Inside a firm which focuses on knowledge sharing, P-O fit is important since the original characteristics and values of new recruit has to embrace sharing knowledge too for reinforcing the dominant culture of sharing knowledge emphasized in the organization. Case study developed by Currie and Kerrin (2003) demonstrated the consequences of an improper process of selection in increasing sharing knowledge complexity between employees from various functional units. Because of the fact that selecting the right candidate who has knowledge sharing perception in common, is remarkably important so recruitment approaches employed has to enable the organization to attract those candidates who have inclination for knowledge sharing, e.g. process of recruitment seeks for outward and positive looking staffs who are interested to contribute to organization's collective goals. All the selection tools, methods and test methods utilized in process of selection such as background check, interview need to be designed very carefully to make sure reliability and validity for choosing pro-sharing knowledge employee. Therefore, recruitment and selection are considered to be related to knowledge sharing process.

The other factor which can be considered in staffing is diversity. Diversity can be related to race, gender and expertise (Ojha, 2005; Sawng et al., 2006; Wang & Noe, 2010). Fong et al. (2011) realized that recruitment and selection has positive and significant impact on knowledge sharing in service and manufacturing industry of Malaysia. Hence, staffing can be assumed as another factor which has potential to influence knowledge sharing of lecturers. Moreover, since Malaysia is a multiracial country so diversity is very important in this country. This subject has been highly emphasized and discussed research conducted by Fong et al. (2011). So staffing could influence knowledge sharing.

H2: Staffing has a significant and positive impact on knowledge sharing

2.1.3 Reward and Compensation

Based on motivation theories developed by Robbins and DeCenzo (2008), reward and compensation strengthen motivation for employees' well improved individual performance. Such employees will be expected to repeat positive behavior again because of obtaining recognition and reward provided by organization. Therefore, organizations utilize rewards and compensation as tools for enhancing, eliciting and maintaining desired behavior of knowledge sharing between employees. The importance of motivational factors in improving knowledge sharing is also consistent with conducted research by Li and Poon (2011).

According to implemented reward and compensation programs by organization, it can be realized that incentives and compensation are critical practices related to knowledge sharing process (Zarraga & Bonache, 2003). If an appropriate reward system is being installed then employees inside the organization will be motivated to share knowledge with each other (Ooi, Teh, & Chong, 2009).

Unfortunately few organizations did a good job in case of administering a suitable compensation system for their members to generate favorable behaviors inside the organization (Fong et al., 2011). Many researchers have demonstrated that reward for individuals can restrain information sharing between employees and minimizing occurrence of transferring knowledge inside organization (Quinn, Anderson, & Filkenstein, 1996). It will divert emphasize of employees from organizational and collective performance as whole, result in high conflict among these knowledge sharing programs and focus narrow practices on collaboration, communication and innovation. In addition, employees are not interested to share knowledge and as a result "silos of knowledge" will be formed (Goh, 2002). In this occasion employees will keep their knowledge and consider it as a weapon in order to compete with other peers in case of work performance. Obviously, the mentioned phenomena will acts against practices of knowledge sharing inside organization. It is better that firm reestablish another type of compensation system that concentrates on group-based compensation for stimulating knowledge sharing and exchange between members of firm (Yahya & Goh, 2002). Conducted researches by Wang and Noe (2010), Asgharian et al. (2012), Wei et al. (2012), and Khanmohammadi (2014) emphasized on important role of reward system on knowledge sharing. Thus, universities can use reward system in order to improve level of knowledge sharing among lecturers and it can be measured through conducting mutual researches.

H3: Reward and compensation has a significant and positive impact on knowledge sharing

2.1.4 Performance Appraisal

Performance appraisal (PA) is known as formal system of evaluating and reviewing team or individual task performance (Mondy, 2010). An appraisal system which is effective can evaluate work performance accomplishments and also collected information used for recruitment, development and training, internal relation of employees and compensation (Mondy, 2010). Konovsky and Cropanzano (1991) demonstrated that when employees inside organization perceive that there is a fair performance appraisal inside organization so they will have positive perspective about organization and it can improve their total commitment into organization.

Jaw and Liu (2003) suggested that it is necessary for companies to present outcomes of performance appraisal to employees and therefore empower remedy actions for those employees who did not perform well. Hence, a system of performance appraisal can be a positive force for employees to have better performance by means of more knowledge sharing to each other. Thus, it is crucial to review impacts of performance appraisal on behavior of knowledge sharing (Fong et al., 2011).

Wang and Noe (2010) emphasized on appraisal apprehension as another important factor which can increase knowledge sharing. However, Fong et al. (2011) asserted that performance appraisal has positive and significant impact on knowledge sharing. If universities consider desire to share knowledge in lecturers for evaluating their performance so it might result in increase of knowledge sharing.

H4: Performance appraisal has a significant impact on knowledge sharing

2.1.5 Team Work/Participation

According to Katzenbach and Smith (1993), team is made of a small assembly of individuals who have various skills which can be complementary to each other to achieve a mutual goal. Teamwork happens when members in a group closely and together reach an objective. Since sharing knowledge refers to communicating ideas and information between employees so it can be motivated by developing working teams in firms.

In addition, according to Lim and Klein (2006) cohesive teams have those members who have similar ideas, beliefs and norms about the fact that how members should behave. In case of knowledge sharing, those teams which are cohesive with sharing knowledge value will assume knowledge sharing as "conduct code" of team. Such behavior which is self-regulated in team will makes team members to be able to share knowledge with other peers willingly. As noted by Goh (2002), in order to make knowledge sharing happen, as noted by working context of organization has to compromise those cooperative members.

Thus, it is important for an organization to nurture and generate a context for knowledge sharing to take place (Zarraga & Bonache, 2003). Experts have confidence that teamwork can be accomplished by means of HRM practices that provide an environment which motivates behaviors that result in overtime and trust and increases organizational knowledge sharing. Fong et al (2011) explained that teamwork has positive and significant impact on knowledge sharing. Moreover, Chen and Huang (2009) considered participation as one of the HRM practices which can impact innovation and knowledge management capacity. Knowledge sharing is considered as one of the knowledge management dimensions. Participation emphasizes on the fact that in different levels of decision making process, knowledge and experience of employees can be utilized. Therefore, it can be concluded that teamwork and participation together can better impact knowledge sharing. So, fifth hypothesis will be formulated as below:

H5: Teamwork and participation have a significant impact on knowledge sharing

2.2 Justice and Knowledge Sharing

Scholars have utilized social exchange theory in order to study how justice, as a key aspect in interpersonal relationships, is related to knowledge sharing (Organ, 1990; Robinson, 1996). Justice is crucial to knowledge sharing as it includes both giving knowledge and collecting knowledge in a community or team of practice with reciprocity expectations (Wu, Hsu, & Yeh, 2007; Wang & Noe, 2010).

Knowledge-justice sharing relationship was not remarkably emphasized in previous researches even though the role of justice in impacting the quality of social exchange relationships among employees and employers is well-developed (Rupp & Cropanzano, 2002; Wang & Noe, 2010). Schepers and Van den Berg (2007) realized that perceived procedural justice has positive relationship with knowledge sharing between employees. Employing part-time students of business administration in Taiwan, Lin (2007) realized that both procedural and distributive justice had indirect and positive impact on tacit knowledge sharing by means of organizational commitment and on the other side distributive justice impacted knowledge sharing via trust of coworkers.

Researches conducted on equity theory (Thau & Mitchell, 2010; Chiu, Wang, Shih, & Fan, 2011) have demonstrated that perceived justice impacts human behavior especially in case of employees. However, Khanmohammadi (2014) believes that perceived justice can impact relationship between trust, individual attitude, and management support and reward system with knowledge sharing among university lecturers. This is consistent with results of research by Gelen et al. (2013) which emphasizes on the important role of perceived justice in the relationship between resource allocation and employee performance.

By the way, in case of relationship between justice and knowledge sharing of university lecturers, we can consider three aspects. First, those lecturers who have more perceived justice will have better performance and knowledge sharing as one of their responsibilities will be increased too. On the other hand, lecturers might use knowledge as a competitive advantage for themselves in comparison to their colleagues. This can decrease their interest and desire to donate and collect knowledge. Thirdly, justice plays a key role in implementing HRM practices such as workshops (training), reward system and recruitment. Therefore, perceived justice can impact outcomes of HRM practices.

Hence, this research develops its final hypothesis according to the moderating role of justice.

H6: Perceived justice moderates the relationship between HRM practices and knowledge sharing

  H6a: Perceived justice moderates the relationship between training and knowledge sharing

  H6b: Perceived justice moderates the relationship between staffing and knowledge sharing

  H6c: Perceived justice moderates the relationship between reward and knowledge sharing

H6d: Perceived justice moderates the relationship between performance appraisal and knowledge sharing

H6e: Perceived justice moderates the relationship of team work & participation with knowledge sharing

3. Method

3.1 Instruments

All of the variables relevant to the hypothesizedmodel of this research and considering knowledge sharing have been identified based on previous studies. Van Den Hoof and De Ridder (2004) found that knowledge sharing can be relevant to individual tendency for donating and collecting knowledge. These two dimensions are appropriate for this study because current research focuses on knowledge sharing behavior of lecturers.

Questionnaire items to measure training, performance appraisal and training have been adapted from research instruments used by Fong et al. (2011) in his study. Items to measure recruitment and selection of staffs were drawn from instruments used by Masood (2010). Items from instrument developed by Chen and Huang (2009) were used to measure teamwork and participation. Perceived justice was measured usingitems drawn from instrument developed by Pérez-Arechaederra, Briones, Lind and García-Ortiz (2014). According to these studies justice includes 4 dimensions as distributive, procedural, interactional and information. Response were obtained using a five-point LikertScale which ranged from 1 = Strongly Disagree to 5 = Strongly Agree. The final survey instrument was obtained after a confirmatory factor analysis. The descriptive statistics for the questionnaire items are presented in Table 1.

Table 1. Descriptive Statistics

Variables	Mean	SD	Skewness	Kurtosis	Std. Loading
HRM practice					
Training					
Formal training activities are available in my university	3.710	1.12	1.121	-.104	.961
My university has comprehensive training policies and programs.	2.906	.88	-1.231	.103	.789
Training is available for new hires	3.41	1.02	.88	-.456	.694
Lecturers receive training throughout their professional lives	4.10	1.31	.236	-.409	.721
Our university conducts extensive training	2.9	.98	-.144	-.236	.541[*]
Training needs are identified through a formal need assessment mechanism	3.01	1.18	.123	1.091	.876
Employee training and development policies cover all the lecturers in the university	4.11	1.09	-.456	-1.05	.773
Staffing					
Recruitment & selection system followed in our university is well defined	2.98	.66	-.236	-.333	.660[*]
The recruitment and selection processes in this university are impartial	2.88	.89	1.891	1.03	.923
Valid and standardized tests are used in the selection process of lecturers.	3.24	1.22	-1.45	.66	.887
University employs lecturers with different races or genders	3.55	1.09	-.651	.89	.789
The organization uses assessment centers for selection	3.65	.84	-.333	1.22	.499[*]
Favoritism is not evident in any of the recruitment decisions made here	2.23	.76	1.330	1.09	.733
Interview panels are used during the recruitment and selection process in this organization	4.38	1.29	-1.341	.84	.867
Performance Appraisal					
Performance is measured on the basis of objectives and quantifiable results	3.23	.49	-1.101	-.651	.806
Appraisal system in our organization is growth and development oriented.	3.11	1.30	-1.231	-.76	.522[*]
Lecturers are provided performance based feedback and counseling.	2.79	1.11	-.84	-1.03	.456[*]
Appraisal system is unbiased and transparent	3.27	1.17	-.236	-.66	.899
Appraisal information is used for bonuses, promotions and	2.67	1.23	.144	-.89	.901

selecting training					
Everybody working in the university have clear understanding of the objectives of performance appraisal	3.14	1.09	-.123	-1.22	.785
Appraisal system has a strong influence on individual and team behavior	4.02	.82	-.840	-1.09	.689[*]
To evaluate lectures performance, tendency of lecturers to collect knowledge is considered	2.77	.70	-1.44	-.77	.666
To evaluate lectures performance, tendency of lecturers to donate knowledge is considered	2.92	.93	-.78	-.68	.729
Compensation					
Compensation offered by our universities matches the expectancy of the faculties.	3.43	.99	.79	-.79	.868
In our university, salary and other benefits are comparable to the market.	3.09	1.07	-.234	-.91	.944
In our university, compensation is decided on the basis of competence of the lecturers	4.22	1.33	1.29	-.88	.778
The compensation for all lecturers is directly linked to their performance.	3.78	1.16	1.65	-.101	.760
Our organization offers both financial and non-financial rewards without discrimination.	2.68	1.22	-1.44	-1.00	.804
The compensation plan is revised accordingly with the economic situation.	3.22	1.11	-1.36	-1.02	.821
The organization offers incentives to its employees related to their performance	3.33	1.43	1.47	-.99	.645[*]
Team Work and Participation					
Employees at each level in the university take part in decision-making process up to an extent	2.77	1.03	2.41	-.82	.479[*]
Lecturers are asked by superiors to participate in related decisions.	3.45	1.06	-1.26	-.81	.745
Lecturers are provided opportunity to suggest improvements in the way things are done here.	3.78	.98	-1.32	-.95	.856
Lecturers are trusted to make decisions for themselves and the university	3.19	.78	-.69	-.72	.678
Each team meets regularly and frequently to solve problems and explore opportunities in its area	3.43	.66	.96	-1.07	.676
We have a culture that promotes lecturer involvement in our university.	2.88	1.02	1.65	-.88	.885
Each team has developed a clearly defined charter/mission and operation guidelines	2.90	1.43	-1.02	.12	.551[*]
Our university consults lecturers in strategic decision-making.	2.84	1.45	-.73	-1.18	.521[*]
Knowledge Donating					
I share my knowledge with my colleagues when I have learnt something new.	3.42	.78	1.49	-.79	.924
My colleagues share with me when they have learnt new things	3.73	.56	1.31	-.91	.864
Knowledge sharing amongst colleagues is considered normal in my organization.	3.61	.66	-1.28	-.88	.706
Knowledge Collecting					
I am confident of my ability to access knowledge that the others in my learning environment would consider valuable	3.11	.87	1.22	-1.00	.867
I have the expertise required to acquire valuable knowledge from my learning environment	3.02	.86	1.43	-1.02	.955
Most of my colleagues can provide me with valuable knowledge.	3.44	1.01	-1.67	-.99	.923
Justice					

Outcome or distribution of resources that provides the same to everyone involved	3.26	1.12	1.15	-.91	.788
Outcome or distribution of resources that gives everyone what they require in their situation.	2.92	1.03	-1.52	-.88	.851
Procedure always applied in the same way	3.24	1.27	.77	-.101	.502[*]
Procedure that does not favor certain groups or individuals over others	3.02	.78	-.90	-1.00	.673
Procedure that is consistent with the current ethical rules	3.07	.99	-.44	-.79	.444[*]
Interaction by mean of respectful communications	3.41	.86	1.23	-.91	.694
Interaction that treats people politely	2.98	1.43	1.02	-.88	.809
Information that includes suitable explanations	3.09	.69	-1.66	-.101	.773[*]
Information provided free of faults	3.55	.89	.98	-1.00	.833
Truthful and forthright information	3.26	.71	.79	-1.02	.776

*: They are deleted after CFA

3.2 Participants and Procedures

A pilot study was carried out using a convenience sample of 30 university lecturers in order to test and refine the current research instrument. The main survey of research was conducted with lecturers from 9 public and private universities located in 5 cities of Malaysia (Kuala Lumpur, Serdang, Penang, Johor Bahru, and Shah Alam) from January to April 2014. Stratified sampling method has been employed based on the numbers of lecturers in each university. All lecturers had doctorate degrees in engineering, medical or social science. Table 2 demonstrates the distribution of questionnaires in the 9 mentioned universities.

Table 2. Distribution of questionnaires

Universities	Total Lecturers	Percentage	Sample Size
University 1 in KL	2200	11.23%	50
University 2 in KL	1980	10.11%	44
University 3 in KL	2600	13.3	59
University 1 in Serdang	2400	12.28	54
University 2 in Serdang	1100	5.61	25
University in Penang	2600	13.27	58
University in Shah Alam	2700	13.78	60
University 1 in Johor Bahru	2800	14.3	63
University 2 in Johor Bahru	1200	6.12	27
Total	19580	100%	440

From a total 440 questionnaires which were distributed to the respondents, 387 of them were usable (88.0%). The distribution of the respondents by gender was 209 or 54.0% male and 178 or 46.0% female. Above third of participants (n=148, 38.2%) belonged to age group from 30 to 40 years old and 30.2% were from 41 to 50 (n=148), 18.1% (n= 70) were from 51 years and above and finally 11.1% were below 30 years old which was equal to (n=43). Of the respondents, 36.17% (n= 140) had less than 10 years of teaching experience, 44.96% (n= 174) had between 11 to 20 years of experience while 18.86% (n= 73) had more than 21 years of teaching experience.

3.3 Statistical Analysis

The (SEM) Structural Equation Modeling method has been utilized to analyze the data of both structural model and measurement model in this research. SEM is considered as a statistical methodology which uses Confirmatory approach in order to analyze all of casual structural relationships (Byrne, 1998; Hair, Black, Babin, Anderson, & Tatham, 2009). It employs model fit statistics such as Comparative Fit Index (CFI), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI) and also Bentler–Bonett Normed Fit Index (NFI) and value of all of them is close to 1.00, demonstrating there is a good fit. Statistics of Additional Model are the value of chi-square to degree of freedom (chi-square/df), that has to be not more than 3 and also root mean square error of approximation (RMSEA) that has to be below 0.8. Particularly, chi-square is not considered as a good fit index here since it is impacted by small sample size (Hair et al., 2009; Byrne, 1998).

4. Findings

4.1 Measurement Model

Research model test contains reliability analysis regarding internal consistency which was calculated by means of Cronbach's alpha. Cronbach's alpha of construct ranged from 0.708 to 0.889 that is more than minimum score of cut-off of 0.7 suggested by Hair et al. (2009). Confirmatory Factor Analysis (CFA) by means of maximum estimation of 387 participants has been done in order to assess underlying structure of the existing variables in the model. All of measures have been accomplished by considering reliability, construct validity and un-dimensionality (Anderson & Gerbing, 1988; Bagozzi & Yi, 1988; Byrne, 1998). Findings demonstrated satisfactory fit to data (chi-square value (df) = 89.743(56); $\chi2/df$ = 1.60; CFI = .985; GFI = .967; AGFI = .946; NFI = .962; RMSEA = .040). All of existing items loaded more than 0.60 on assigned factors and also were remarkably associated with specific constructs (p < .001). These findings presented evidence regarding un-dimensionality.

Table 3. Discriminant and convergent validity

Observed Variables	AVE	CR	1	2	3	4	5	6	7
1 (Training)	.652	.917	**.652**	.123	.133	.061	.160	.014	.313
2 (Staffing)	.710	.924	.350	**.710**	.062	.121	.067	.011	.193
3 (Performance Appraisal)	.643	.915	.365	.250	**.643**	.103	.078	.023	.423
4 (Reward and compensation)	.691	.930	.248	.349	.322	**.691**	.082	.012	.197
5 (Team work and Participation)	.598	.880	.401	.260	.280	.288	**.598**	.012	.271
6 (Justice)	.604	.914	.122	.105	.154	.111	.114	**.604**	.230
7 (Knowledge Sharing)	.769	.952	.560	.440	.651	.444	.521	.480	**.769**

All estimated correlations (r) are shown in the left side of the bold values diameter while the rightside valuesshow squared of correlations (r^2).

Through assessing discriminate validity and convergent validity, construct validity has been examined (Fornell & Larcker, 1981; Ping, 2004). According to Table 3, all of loaded indicators on proposed constructs are significant at p < 001. Average Variance Extracted (AVE) regarding measure ranged from .598 to .769, was more than the suggested value of 0.50 which confirms convergent validity. Besides, composite reliability (CR) should be more than 0.6 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). In order to make sure about discriminate validity, squared correlation coefficients among each pair of available constructs should be less than AVE for each single construct (Fornell & Larcker, 1981; Ping, 2004). Value of AVE for constructs was more than squared correlation among constructs, showing that discriminate validity was obtained. In addition, an acceptable statistically model has been identified and measurement model overall explained relationships between five constructs and thirteen items which measure latent constructs.

4.2 Structural Equation Model

In order to fit this model, some of items have been eliminated (They are marked with * in Table 1). Findings demonstrated a satisfactory fit for data (chi-square value (df) = 56.31 (46); $\chi2/df$ = 1.224; CFI = .923; GFI = .977; AGFI = .965; NFI = .989; RMSEA = 0.79). Thus, in next step, relationships between variables were calculated by SEM (Table 4).

Table 4. Impact of HRM practices on knowledge sharing

Hypothesis	Path	Path Coefficient	Std. Error	Critical Ration	P-value	Remarks
H1	Training → Knowledge Sharing	.372	.087	4.23	0.00	Supported
H2	Staffing → Knowledge Sharing	.351	.118	2.97	.011	Supported
H3	Reward → Knowledge Sharing	.483	.089	5.41	0.00	Supported
H4	Appraisal → Knowledge Sharing	.211	.077	2.72	.009	Supported
H5	Participation → Knowledge Sharing	.166	.054	3.05	.007	Supported

According to Table 4, all of HRM practices have significant and positive impact on knowledge sharing, maximum impact is related to reward and compensation (β=.483, p=0.00) and on the other side minimum impact is for participation (β=.166, p=0.007). The results of this study support H1, H2, H3, H4 and H5.

4.3 Moderating Role

One multiple group analysis has been done in order to examine moderating impact of perceived justice (PJ), regarding relationships between the constructs (Byrne, 2009). This multiple group analysis is considered as a hierarchical method through which two specific sub groups are being compared to each other. Participants have been separated as two groups (a low-PJ (N=201) and a high-PJ group (N=186)) were achieved according to median split of moderating factor (m=3) (Chandrashekaran & Grewal, 2003). In order to examine differential impacts of perceived justice among high-PJ and low-PJ group, this research developed invariance test by means of chi-square value comparison as well as degree of freedom regarding overall model and also constrained model (Anderson & Gerbing, 1988). Therefore, the moderating role of perceived justice in the relationship between HRM practices and knowledge sharing was defined (Table 5). The results support the moderating role of perceived justice for each practice.

Table 5. Test of moderating role of perceived justice

Paths	Standardize estimate		Results
	High-PJ (n=186)	Low-PJ (n=201)	
Training → Knowledge Sharing	.392 (5.22)**	.286 (3.75)**	Accepted
Staffing → Knowledge Sharing	.331 (2.65)**	.346 (3.01)**	Accepted
Reward → Knowledge Sharing	.501 (5.55)**	.402 (4.81)**	Accepted
Appraisal → Knowledge Sharing	.201 (2.32)*	.223 (2.91)*	Accepted
Participation → Knowledge Sharing	.178 (3.33)**	.154 (2.94)*	Accepted

*: p< .05; **: P< .001

According to achieved results in Table 5, this study supports H6a, H6b, H6c, H6d, and H6e.

5. Discussion and Conclusion

Achieved results demonstrated that all of HRM practices can impact knowledge sharing. According to Table 4, training has positive and significant impact on knowledge sharing (β=.372, p=0.00). Results are consistent with previously conducted researches by Low and Mohammed (2005), Fong et al. (2011), Asgharian et al. (2013) and Khanmohammadi (2014). In addition, according to findings in Table 5, perceived justice can moderate relationship between training and knowledge sharing. It means that impact of training on knowledge sharing is influenced by perceived justice of lecturers. Moreover, it was realized that lecturers in high-PJ group will improve their knowledge sharing through training.

Impact of staffing on knowledge sharing (β=.351, p=0.011) is also significant and positive. So it can be concluded that in order to improve knowledge sharing among lecturers, universities can consider some factors such as tendency to donate and collect knowledge for their selection system. One of the staffing items is recruiting different races and genders which were retained in SEM analysis. These findings are consistent with the research findings by Fong et al. (2011).

This shows that employing different races and genders will contribute to increase in knowledge sharing among lecturers. This is consistent with results of research conducted by Ojha (2005), Sawng et al, (2006) and Wang and Noe (2010). Interaction among RBV and equity theory resulted in new outcomes in case of relationship between knowledge sharing and staffing. On the other hand, perceived justice (before and after recruitment) can impact relationship between staffing and knowledge sharing. According to achieved results in Table 5, low-PJ group shows more interest to share knowledge.

Reward and compensation have significant and positive impact on knowledge sharing (β=.483, p=0.00) which is opposite to results from research conducted by Fong et al. (2011). On the other hand, achieved results are consistent with research conducted by Wang and Noe (2010), Asgharian et al. (2012), Wei et al. (2012), and Khanmohammadi (2014). Therefore, Malaysian universities can use reward system in order to motivate lecturers so they will share their knowledge with each other. Moreover, relationship between reward system and knowledge sharing can be influenced by perceived justice.

Achieved results from SEM demonstrated that performance appraisal can impact knowledge sharing among lecturers (β=.211, p=0.009). All of findings are consistent with conducted researches by Fong et al, (2011) and

Wang and Noe (2010). Thus, universities through considering knowledge sharing factor in evaluating lecturers' performance can increase knowledge sharing level among lecturers. Additionally, results revealed that perceived justice moderates relationship between performance appraisal and knowledge sharing.

Final HRM practice is participation and results demonstrated that it can impact knowledge sharing (β=.166, p=0.007). Hence, through lecturers' participation in decision making processes and also shifting them into teamwork, knowledge sharing will be improved. Findings are consistent with conducted researches by Goh (2002), Zarraga and Bonache (2003), and Fong et al. (2011). Besides, moderating role of perceived justice was supported in the relationship between participation and knowledge sharing.

According to the supporting moderating role of perceived justice on relationship between all of HRM practices and knowledge sharing, universities should attempt to improve their level of justice. Justice has different dimensions such as distributive, procedural, procedural, interactional and informational. Therefore, universities need to improve all of these 4 dimensions among lecturers. Achieved results demonstrate role of equity theory in using intellectual capital more properly. On the other hand lecturers as talents in the university context need to implement effective HRM practices in order to increase knowledge sharing. It can be impacted by perceived justice of lecturers.

Future studies can test framework of current research in other contexts such as hospitals and by considering doctors as population of study. Moreover, other variables such as innovation and non-financial performance can be added to this framework. Such variables can be considered as dependent variables to knowledge sharing.

To extent the theoretical outcomes of this research, future study can explore the main factors which are able to affect the relationship between HRM practices and knowledge sharing. It will expand the moderating factors (external and internal) based on their importance in the scope of study.

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Adaptation of Chinese New Year Tradition among Thai Chinese in Songkhla Province amidst Modernization

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Abstract

The objective of this study was to explore the adaptation of Chinese New Year tradition among Thai Chinese in Songkhla Province amidst modernization. The data of this qualitative study were collected through in-depth interviews with 30 key informants who were Thai Chinese. The informants were divided into three groups of 10 people, consisting of young people aged 19 – 24 years, working-age people 25 – 60 year, and elderly people aged 61 years or more.

The results of the study revealed that most Thai Chinese in Songkhla Province have adapted the tradition of Chinese New Year in terms of offerings used in paying respect to spirits emphasizing on conveniences by buying them readymade because many people do not have time to prepare them. The rituals in paying respect to deities have changed from the past as well because they are not very strict in following the traditional way of doing it any more, especially, the practice concerning the auspicious time to do it but focus more on simplicity and convenience, and adapt it according to the changing situation in manpower and money power. As a result, they reduce the scale and complication due to the economic condition as fewer children can come back home from their workplace in far ways places, which make it inconvenient for them to travel back and join the New Year festivities. However, Thai Chinese in Songkhla Province still practice the tradition with the same procedure that has been passed down from generation to generation through telling, teaching, and practicing it. Consequently, they are proud of the identity of their ethnicity and pass it down continually so that it becomes a powerful way of life among Thai Chinese in Songkhla Province who will preserve it.

Keywords: adaptation, Chinese descendant community, Chinese New Year, Thai Chinese, social change

1. Introduction

Thailand is a multi-cultural society where many ethnic groups of people have settled: Thais, Thai Chinese, Muslim Melayu, westerners, etc. Thai society is open freely to information from all over the world, and as a result, advancement in communication technology flows into the country unceasingly as well as cultures from other countries worldwide. The cultural dynamics driven by globalization has led the country to cultural combination including emergence of new cultures as a result from hybridization, homogenization, and resistance. There is a cultural flow through five dimensions: ethnoscapes, which are migration and traveling; mediascapes; ideoscapes, which are beliefs and administration concepts; financescapes; and technoscapes (Natthawuthisit & Suphamon, 2010). This is why each ethnic group has adopted cultures from inside and outside the region, but the extent of adoption depends on the cultural strength of the group.

Songkhla is a province where many foreigners have settled because it is situated in a location suitable of being a trading seaport in the past because it is convenient for trading ships to anchor as there is a deep waterway near the beach (The National Archives of Thailand, Phra Kalahom official Affairs, Rama IV, 1859; Krom Phraya Phanuphanthuwong Woradet, 1961). Chinese migrated to Songkhla in the final phase of the Ayutthaya Kingdom. When Songkhla became increasingly prosperous, more Chinese and other foreigners came to do business and live there (The Vachirayan Library, King Rama IV's Archive, 1860; Historical Records Volume 3, 1963). Chinese adapted themselves to Thais and Thai society. Moreover, they were very determined, patient, frugal, and could eventually buy land and build their houses permanently in Thailand. Some were married to Thais and changed from using Chinese surnames to Thai surnames. Nevertheless, they have earnestly preserved their traditions and cultures and continuously passed down their Chinese identity to their Thai Chinese children until

now (Roy & Andrews, 1999). This is evidenced by the rituals Thai Chinese perform in their traditions unceasingly until today.

Important Chinese traditions that Thai Chinese have continued the practice are for example, the Chinese New Year tradition, the Hungry Ghost Festivals, Chinese wedding, the Moon Festival, Ching Ming Festival, etc. These traditions reflect beliefs, thoughts, doings, values, attitudes, morals, customs, ceremonies, and traces of civilization. This corresponds with Suphap (1993) who notes that important characteristics of traditions are in the practice that people have believed and practiced for a long time until they become thoughts or doings that have been passed down from generation to generation and have influence on people to the present time. In this article, however, only the Chinese New Year tradition will be discussed since this tradition has been practiced by Thai Chinese in Songkhla for such a long time and Thai Chinese consider it the occasion when the last day of the year passes by and the New Year arrives.

According to the legend of Chinese New Year Festival, once there was a hardworking man who worked all year round with no holidays. If he had taken a day off, he would have had worried about his family because he was so poor. One day he went to see a monk and asked when the town would collapse so that he could escape from suffering from working hard; the monk answered when the stone lion in front of the temple coughed up blood. Later a butcher put a lot of pork blood on the mouth of that lion. When people saw it, they thought the lion coughed up the blood as the man told them. They were very frightened thinking that the town was going to collapse, and so they used sugar canes to support the doors of their houses. The following morning when they saw that the town did not collapse, they were so happy that they wanted to celebrate. Therefore, they took a day off, went to see each other to talk about it, and wished each other happiness, and of course, they took the opportunity to enjoy themselves, too. That day was one day after the end of the twelfth month and it was the first day of the waxing phase, and that was how the Chinese New Year began. Before the New Year festival comes, Chinese clean their house, repair the parts that need to be repaired, paint the fence and doors, and dust everything in the house because they believe that cleaning the house is to sweep away any ill-fortune. Then they decorate their houses and important places with lanterns. On the main door of the house, two door gods are placed on either side of the door to keep evil spirits from entering the house and causing troubles to people living in that house. One god is called "Yuchi Gong" and the other is "Qin Shubao" (Phakamat, 1980).

In addition to this, Chinese New Year Festival is an important time when Chinese pay respect to their ancestors because they believe that if they do not pay respect to their ancestors with correct ritual steps, their trading or work will not be successful. This festival is also an opportunity to see relatives and tighten relationships among them. Being grateful to their ancestors and reciprocate with loyalty is an identity of Chinese.

Because of the importance of Chinese New Year Festival, Thai Chinese have continued the practice of paying respect to their ancestors during the festival. However, the present social influence from outside has come to affect Songkhla society because it is open to globalization because Songkhla is a center of communication and tourism for the Southern part of Thailand, and thus, there are many visitors from other countries as well as from all over Thailand to Songkhla. It is very interesting to find out whether amidst modernization, the new generations of Thai Chinese in Songkhla still give importance to this tradition and continue to preserve it, and because many ethnic groups have traveled to and from Songkhla continually, various cultures have been passed down across the border. Another interesting issue is that if they still practice it, how they sustain this important tradition. The researchers, therefore, aim to explore to find the answers to offer the experience to other cultures that are being pressed for expulsion and become weak and prone to cultural assimilation. The other question is how the beliefs have been handed down to the younger generation.

2. Definitions of Terms

Adaptation refers to changes that take place due to cultural and social environments that affect the way of life among the Thai Chinese community in Songkhla.

Thai Chinese refers to offspring of overseas Chinese who migrated to settle in Songkhla Province from the reigns of King Rama I to King Rama V.

Social change refers to modernization due to influence of the Industrial Revolution that has caused consumerism in the age of globalization in Songkhla Province

3. Objective

To explore the adaptation of the Chinese New Year tradition among Thai Chinese in Songkhla Province amidst modernization.

4. Research Method

This qualitative research employed in-depth interviews and participatory observations to collect data, and the research design is as follows.

1. Study areas-Thepha District, Hat Yai District, Na Thawi District, Ra Nod District, and Sadao District of Songkhla Province were selected. This is because they are areas where Chinese who faced problems in their home country migrated to make their living in the reign of King Rama III, and have since settled in Thailand where their descendants have become Thai Chinese who actively continue Chinese rituals in many Chinese customs and traditions.

2. Informants-A total of 30 key informants were divided into three age groups of 10 people as follows. Young people aged 19 – 24 years, working-age people 25 – 60 years, and elderly people aged 61 years or more.

3. Data analysis-The data collected from related documents, in-depth interviews, and participatory observations were analyzed using phenomenological analysis applied by Ganjanapan (2010) who emphasizes a thinking process with movements for learning, creativity, reproduction, and adaptation of the Thai Chinese community in Songkhla Province under the changing social and natural environments. In addition, the data analysis of this study applied Na Thalang's concept of beliefs in traditions (1997), and Roy & Andrews' adaptation theory (1999) in describing the adaptation of the Chinese New Year tradition among Thai Chinese in Songkhla Province amidst social modernization, and in presenting analytical descriptions.

5. Results of the study

5.1 Importance of the Chinese New Year Tradition

The Chinese New Year tradition is a tradition that Thai Chinese have practiced due to a belief that reciprocations to ancestors with loyalty, and they show their gratitude during Chinese New Year festival when family members who work in other faraway places come back home. Besides, it is an occasion to celebrate New Year together and to relax after a year of hard work.

Thai Chinese in Songkhla Province give importance to the Chinese New Year tradition by cleaning their houses, decorating them with lanterns, and Chinese calligraphy of auspicious characters pasted on their front door panels. New red clothing are prepared in advance as it is believed that red is an auspicious color. Two days before New Year's Day are spending days when Thai Chinese buy items to prepare for the day that they perform rituals of paying respect to gods or deities.

On the following day called "Sa Chap", an important day during Chinese New Year festival, Thai Chinese in Songkhla Province pay respect to gods or deities. It is believed that on the day they pay respect to gods and ask to be blessed for the New Year, they also pay respect to their ancestors to show gratitude and loyalty in return for their ancestors' support that has enabled them to be successful in their occupation. The ritual procedure of paying respect is as follows.

1. The paying respect ceremony in the morning is called "Po Lao Ia" which means paying respect to deities (deities refer to sacred spirits). Foods for the morning ritual consist of pork, duck, chicken, whiskey, tea, Che Chai (vegetables), mandarin oranges, and desserts. Paying respect can be performed from midnight until early morning.

Figure 1. Paying Respect ceremony in the morning on Chinese New Year Day
(Photo taken by Asst. Prof. Janjula, Jiraporn on January 30, 2014)

2. The paying respect ceremony in the late morning is called "Pai Pe Bo", which means paying respect to parents, especially the deceased ones. This ritual must be performed before noon. Offerings used in the ritual consist of a set of meal complete with rice, savory dishes and desserts.

Figure 2. Paying Respect ceremony in the late morning on Chinese New Year Day
(Photo taken by Asst. Prof. Janjula, Jiraporn on January 30, 2014)

3. The paying respect ceremony in the afternoon is called "Pai Ho Hea Tee", which means paying respect to deceased ancestors or relatives. This ritual must be performed in the afternoon. There are more items than those used in the morning and late morning rituals. However, joss sticks and candles are the main items, and in addition to those used in the morning and late morning are Khanom Kheng, Khanom Thian, Khanom Thontai (these Khanom or desserts are made of sticky rice flour and sugar as the main ingredients), and silver and gold paper. Firecrackers must be lit. Some families perform this afternoon ritual with the late morning ritual (Kaemkhunthot, 2001).

Figure 3. Paying Respect ceremony in the afternoon on Chinese New Year Day
(Photo taken by Asst. Prof. Janjula, Jiraporn on January 30, 2014)

In every ritual of paying respect, there must be the paying of respect to deities. For the ritual of paying respect to the guardian spirit, known as "Tee Chu Ia", the items used in paying respect are different from other rituals. They consist of five cups of tea, five 1-shot glasses of whiskey, five pairs of chopsticks, Sa Sae or Ngo Sae (three or five kinds of meat), other dishes, desserts, fruits, a pair of candles, three or five joss sticks, and silver and gold paper. This ceremony is an invitation to deities to come and receive the offerings and bless the family. When the joss sticks are burnt half way, silver and gold paper is burnt.

In addition, there is a paying respect ritual for stray spirits called "Ngow Hea Tee", which is performed from late afternoon to dusk. The ritual is performed outside the house, which can be on a mat or a table placed behind the house, if inconvenient, it can be in front of the house instead. The offerings include joss stick and candles, bamboo leaf tea, whiskey, Sa Sae or Ngo Sae (three or five kinds of meat), dried foods, rice, salt, vegetables, noodles, canned food, soda drinks, cigarettes, Khanom Thuai Fu (rice flour muffins), Khanom Kheng (sticky rice cake), steamed rice, soup, and other dishes of food, bowls and chopsticks, different kinds of fruits, silver paper, firecrackers, etc.

Figure 4. Paying Respect ritual for stray spirits on Chinese New Year Day
(Photo taken by Asst. Prof. Janjula, Jiraporn on January 30, 2014)

When the paying respects ceremonies are over, the elderly or adults in the family give presents or money called "Tae Ia" to children so that they can have some money. Money is usually given in a red envelop called "Ang Pao". In the past, "Tae Ia money" is given to only children in the family. However, nowadays it is given to relatives, friends, and employees similar to bonuses. Besides, mandarin oranges are exchanged between families because Chinese regard mandarin oranges, called "Tai Kik" in Chinese, as an auspicious fruit with a good meaning that is good for recipients. For people who have debts, it is the day for them to pay the debts (Kaemkhuthot, 2001).

After the paying respect day, is the "Wan Thue" in Thai or "Chew Ik" day in Chinese or the first day of the New Year, which is an auspicious day when everyone has a holiday to celebrate. On this day, Thai Chinese abstain from sweeping the floor, quarrelling, killing, or hurting as it is believed that they are ill fates for one's life. When putting away utensils, one has to be extra careful not to make noise or drop the items. They abstain from using a knife or other sharp tools because it will cut off their luck. On this first day of the New Year, everyone wears beautiful new clothes because it is the day for the beginning of a new life. If they start with good things, life will be prosperous the whole year through. In the past, many Thai Chinese visited their relatives to wish them all the best but this tradition has changed as more and more people prefer visiting places. In the past, they also wished each other using their own dialects.

Therefore, the Chinese New Year tradition is very important for Thai Chinese in Songkhla Province as evidenced by the following statements made by some of the key informants. Mr. Phatthana-Amorn Phiphat (interviewed on November 16, 2013) said that the tradition has been practiced from the generation of his grandparents. It is the time to celebrate New Year together when all the children are home. Mrs. Chongwatthanaphaibun Wanna (interviewed on November 27, 2013) said that Chinese New Year is the time when everyone celebrates. Besides, there are statements made by several elderly Thai Chinese in Songkhla Province who confirm the importance of this tradition as follows.

"It is a tradition of celebrating Chinese New Year that has been practiced by many generations" (Mrs. Sae Lim Kanda, interviewed on October 28, 2013).

"At home we have celebrated Chinese New Year from the time of my grandparents" (Mrs. Chueaythong Phensri, interviewed on January 12, 2014).

"It's the homecoming day for our relatives and we can introduce them to each other and at the same time we can celebrate New Year together." (Mrs. Olankit Phornphan, interviewed on February 12, 2014).

It can be seen that the Thai Chinese elderly in Songkhla Province give importance to the Chinese New Year tradition that they have continued the practice from one generation to another at the same time as handed down the concept and beliefs to people who are middle-aged or working age, as can be seen from Miss Chewsuwan Rassamee (interviewed on January 18, 2014) who said that the Chinese New Year tradition is important for all Thai Chinese people because all family members get together to celebrate New Year. It's a good get together day for all relatives. However, now people go to work in different places so they do not do it as often as they used to. Mrs. Srisuk Pranee (interviewed on January 14, 2014) added to this viewpoint that it is to make merit when we pay respect to the guardian spirit and take a rest. It is good to be able to take 2-3 days off after working for the whole year long. We have a chance to spend some money after working for it. We should give some money to others, and we will get more later. In addition to these opinions, some young working-aged Thai Chinese in Songkhla Province also expressed similar opinions as follows.

"Chinese New Year is important because it is a Chinese festival that has been celebrated from our grandparent's time." (Mrs. Chaitrong Onsri, interviewed on March 10, 2014).

"Chinese New Year is still important for Thai Chinese who strongly believe in Chinese culture because this is a New Year celebration." (Mrs. Uengthong Orawan, interviewed on January 15, 2014).

The above data collected from young working age people in Songkhla Province who still attach importance to the Chinese New Year tradition and can pass on this concept to the next generation of Thai Chinese. This is because they also adopt this concept and belief from their ancestors.

The new generation of Thai Chinese express their views that the Chinese New Year tradition is a Chinese culture that has existed for over a thousand years and can be practice anywhere to make Chinese feel like they have been back home to China. This is the same as Songkran Festival, which is a Thai culture of New Year celebration when family members get together and pay respect to the elderly, and the tradition has been passed down until the present. Chinese New Year Festival offers them a chance to meet Chinese from other countries and it is a get together among relatives that makes them feel warm in the heart. Miss Sirilawan Chayanit (interviewed on

February 1, 2014) and Miss Sae Chee Kamolchat (interviewed on February 5, 2014) said that Chinese New Year is a good and important tradition because it is a get together for relatives, to have fun, and wear new outfits. Miss Ratiwisan Nanthika (interviewed on February 3, 2014) stated that Chinese New Year is important because we pay respect to a New Year but she does not like to go anywhere on Chinese New Year Day because it is hot and there are too many people. But she likes it because I get Ang Pao money, get to eat good food, and to meet relatives. Another informant is Miss Thertthatsanai Sasithon (interviewed on February 15, 2014) said that it's the time to pay respect to her ancestors and celebrate New Year. Her parents ask her to help prepare offerings and to join her relatives every year, and she likes it because there are a lot of good things and fun. Miss Yongyutthikun Supawee (interviewed on February 20, 2014) said that it is to celebrate New Year, and she joins it every year to pay respect to deities, and ancestors while Miss Densuriyaphong Kasina (interviewed on January 19, 2014) said that her family practice this traditions. She helps her mother who tells her what to do and how to do it. In addition, the following are statements by the new generation who have similar views.

"I pay respect to my ancestors, get to each food after the ritual, and get Ang Pao. I feel good practicing the tradition so I do it every year." (Miss Laopreecha Thitiporn, interviewed on January 20, 2014).

"It's a good festival because I get Ang Pao from my elder relatives, light firecrackers and firework." (Miss Ang Chalita, interviewed on December 20, 2013).

"I get together with my relative; I get Ang Pao, and eat special food, and go out with my relatives." (Miss Areesantichai Yanisa, interviewed on December 23, 2013).

"I've seen my parents do it for so many years, and every family of my relatives celebrates it. Children get new outfits, something delicious to eat; get Ang Pao, and get to go out." (Miss Chamnanmueang Chalita, interviewed on December 27, 2013).

"It's a get together day for relatives and I get to eat delicious food. It means I get to pay respect to celebrate Chinese New Year. " (Miss Chaitrong Natcha, interviewed on December 9, 2013).

It can be concluded from the interviews that Thai Chinese of the new generation see the importance of the tradition because it is New Year in Chinese culture that older people practice every year. Young people see it, participate in paying respect to deities, get new clothes, and Ang Pao, have an opportunity to see relatives and have special foods on the important day. The new generation receives good things from the Chinese New Year tradition and therefore, has good attitudes towards it.

5.2 Inheriting the Chinese New Year Tradition

Descendants of Chinese who, in the past, traveled over the sea to settle in Songkhla Province have become Thai Chinese in Songkhla who continue handing down the concept and beliefs by trying to tell their own stories to their children so that they can also continue the practice. This is how Chinese instill in their children the tradition of Chinese New Year. They show their children what and how to do things related to the tradition by allowing children to help prepare offerings used in paying respect. Family members participate in the preparation activities according to their ability. Chinese New Year Day is the day that relatives get together and the day that people have a chance to meet relatives from other districts and provinces to talk and to have meal together. Sometimes they travel to visit different places together to tighten their relationships. Adults give Ang Pao to children, which makes both children and adults happy; everybody is there together (Mrs. Sae Lim Kanda, interviewed on October 28, 2013). In organizing the paying respect, she teaches mainly her eldest daughter while the younger ones also help every year. She assigns everyone to do something because it is an important festival. Children are willing to help because they expect to get more Ang Pao when they do something good (Mrs. Chongwatthanaphaibun Wanna interviewed on November 27, 2014). In addition to this, Thai Chinese in Songkhla Province who are senior citizens speak in the same way as follows.

"In the past, their mother taught them to prepare offerings by helping to cook different dishes and desserts such as Khanom Kheng (sticky rice cake). Children help mill the flour. They also join in the paying respect ceremonies every year." (Mr. Phatthana-Amorn Phiphat, interviewed November 16, 2013).

"Chinese New Year is the only Chinese traditional festival that our family still practices, so it is an important annual festival for us. We don't practice other Chinese traditions anymore." (Mrs. Chueaythoung Phensri, interviews on January 12, 2014).

"I invite all my children and grandchildren to join the celebration every year and I assign each of them to do something, especially my eldest daughter and eldest granddaughter. I try to transfer how to do things by explaining while doing, demonstrating, and letting them do it. But people nowadays don't have time and are less

patient, so most of them buy everything because it is much more convenient." (Mrs. Olankit Phonphan, interviewed on February 7, 2014).

From the interviews above, it can be seen that transferring the Chinese New Year tradition is carried out by telling how to do it, showing how to do it, and allowing participation in doing it repeatedly every year. This can enable the younger generation to absorb and to do it correctly, and to be able to replace their parents in practicing the tradition it when the parents are old.

It is the responsibility of the middle-aged Thai Chinese in Songkhla Province to inherit the Chinese New Year tradition because it is the time when they are ready to hand it down to the new generation after they have seen their grandmother and their mother do it from the time they were young. Everyone participates in it every year, has helped in preparing it, and has seen all the steps and now the legacy is passed on to them to carry on. It can be said that they have absorbed the tradition since they were children (Mrs. Chaitrong Onsri, interviewed on March 10, 2014). Mrs. Charoenthawon Churairat (interviewed on February 5, 2014), said that she has inherited the practice from her father. She has participated in the rituals of paying respect to her ancestors since she was very young, as soon as she could remember things. She said that after the rituals, the food was not consumed only in the family but it was also given to neighbors and friends. Every year her family uses about 10 ducks and chickens to give others, too, because it is only once a year and it is to tighten the relationships. Her father has done it this way and she does it the same way. Similar accounts that were given by other informants are as follows.

"I've seen my parents do it since I was young. My grandparents did the same things. They tell us to help preparing things for the event. In my family, my eldest sister knows the best and she inherits it while I and my younger sisters and brothers are only helpers." (Miss Chewsuwan Rassamee, interviewed on January 18, 2014).

"I pass it on to the next generation by doing it for them to watch, and they must join the tradition every year. I think the Chinese New Year tradition will probably stay on forever because it's an important festival and it's Chinese New Year. Another reason is that now it is convenient to buy items of offerings and all the foods are readymade. I think, in the future when I can no longer do it, my children will do it for sure because they have seen it and absorbed it since they were very young." (Mrs. Chaitrong Onsri, interviewed on March 10, 2014).

The above statements from the interviews reflect that Thai Chinese in Songkhla Province who are in their senior years are successful in handing down the Chinese New Year tradition to the middle-aged generation who have practiced it continuously and pass it on to the new generation who have good attitudes towards the tradition. One young informant said that she learns the tradition from her family because her mother and grandmother do it every year at home, and she participates it every year except when she is tied up with very important business. Her mother transfers it to her by teaching, showing, and assigning her to do something such as folding silver and gold paper, buying offering items for paying respect, arranging items on plates, putting tea cups and whiskey glasses on the correct positions, burn the silver and gold paper, light firecrackers, etc. (Miss Chaitrong Natcha, interviewed on December 9, 2013). Another informant said that her grandmother and her aunt are the heads in arranging the items for paying respect, and she helps them with whatever they tell her to do but now she does not have much time to help (Miss Laopreecha Thitiphon, interviewed on January 10, 2014). Moreover, Miss Sirilawan Chayanit, interviewed on February 1, 2014, said that her grandmother does it with help from her uncle, father and mother, and they buy some items that her grandmother tells them to buy. Then they arrange the table for paying respect to their ancestors. In another family, an aunt is the head in arranging the items and other family members help to buy things (Miss Sae Chee Kamonchat, interviewed on February 5, 2014). Now her mother arranges the items for the rituals, and she does not know much about it but she could do it by following her mother's instructions (Miss Ang Chalita, interviewed on December 20, 2013). In addition to the above statements, there are some other statements that correspond with them as follows.

"My grandmother arranges the items and others help cook the food." (Miss Areesantichai Yanisa, interviewed on December 23, 2013).

"I inherit it from my mother who instructs me and teaches me to do what she wants me to do." (Miss Densuriyaphrom Kasina, interviewed on January 19, 2014).

"My mother tells me to help and she has done it ever since I was young. I follow her to the market, help her cook, and prepare everything. She always explains it to me." (Miss Ratiwisakun Nanthika, interviewed on February 3, 2014).

"I learn something from my mother because she tells me to help her to do things such as folding silver and gold paper, arranging the dishes on the table, etc." (Miss Thertthatsanai Sasithon, interviewed on February 15, 2014).

"There are some things that I cannot do when I'm told; my mother tells me to do just a few things but I'm not good at it. But my mother doesn't scold me because it is an auspicious day, scolding is not allowed." (Miss Chamnanmueang Chalita, interviewed on December, 27, 2013).

"I'm not good at it but I know what we need to have and to do because I've always seen my mother do it." (Miss Yongyutwutthikun Supawee, interviewed in February 20, 2014).

The above data indicate that the young generation of Thai Chinese has good attitudes towards direct and indirect learning. They do it and learn to do it by practicing it little by little through time and they will be able to do it better in the future.

5.3 Adaptation of the Chinese New Year Tradition amidst Social Change

A borderless world of information and communication and the economy of Thailand that is affected by world economy have impacts on customs and traditions of ethnic groups, and the Chinese New Year tradition is no exception. The tradition has to adapt itself so that it can resist the social change as evidenced by the statements of some informants who are senior Thai Chinese in Songkhla Province that their children are now grown up, and work in different places and provinces. As a result, it is not convenient for them to travel back home for a get together during Chinese New Year Festival while some of their grandchildren have to go to school or have something important to do, thus, not everyone is present like it used to be (Mr. Phatthana-Amorn Phiphat, interviewed on November 16, 2013).

Nevertheless, this tradition probably will continue to exist because Thai Chinese place emphasis on customs and traditions, and the Chinese New Year tradition has existed for such a long time that people see its importance. The number of Thai Chinese families that still continue practice it, and the number of tourists coming to visit many districts in Songkhla Province during Chinese New Year Festival have increased every year and the size of the festival has also increased. This is because many people are interested in the festival, and it is because of advertisement made by the province (Mrs. Olankit Phonphan, interviewed on February 7, 2014).

Nonetheless, there are people who are not certain whether the tradition will continue to exist because each family has different opinions on it. However, Mrs. Chueaythong Phensri, interviewed on January 12, 2014, said that she would continue the practice because it is a good festival that makes people happy and celebrate New Year together. This is in agreement with most people who think that the tradition will continue to exist but with a few adaptations as follows.

1. Offerings to deities-The new generation places more emphasis on convenience. They buy readymade offerings, and this practice is different from the past. The types of offering items have also changed according to availability of the items. They buy food and most anything needed for the rituals from superstores (Mrs. Sae Lim Kanda, interviewed on October 28, 2013). Therefore, this tradition will continue to exist because Thai Chinese descendents practice it every year, and they have learned about it and have seen their parents and grandparents do it since they were children. However, there will be some changes depending on the new generation's conveniences. They will probably not cook chicken and pork themselves but buy them readymade or precooked like roasted pork instead of boiled pork. They will also buy some dishes from Chinese restaurants, and they will buy Khanom Kheng, and other Khanom, too (Mrs. Chongwatthanaphaibun Wanna, interviewed on November 27, 2013). Young people in Bangkok pay respect to deities on Chinese New Year day and buy everything they need because they have to work and have no time to prepare everything like people of the previous generation did before (Mr. Phatthana-Amorn Phiphat, interviewed on November 16, 2013).

2. Rituals in paying respect to deities-The rituals in paying respect to deities and ancestors have changed to be more simple, not very strict in terms of time. The new generation may do it on another day or at other time depending on the situation, manpower as well as money power based on their convenience because they have to work (Miss Ang Chalita, interviewed on December 20, 2013). We should continue the tradition but reduce it to a smaller scale and simplify it because everything is more expensive (Miss Chewsuwan Rassami, interviewed on January 18, 2014), and Miss Ratiwisawakun Nanthika, interviewed on February 3, 2014. Besides, we can choose simpler methods such as offerings that consist dishes that are cooked using a simple method or buy ready to eat food instead. We can replace boiled chicken with chicken cooked for a dish called Khao Man Kai, or Hainanese chicken rice; boiled pork with Trang style of roasted pork, etc. (Miss Chaitrong Natcha, interviewed on December 9, 2013).

3. The number of people-The number of people participating in the tradition will probably decrease because many Thai Chinese descendants in Songkhla go to work, study and live in other provinces, especially Bangkok making it inconvenient for them to return home to celebrate Chinese New Year. Thus, not everyone can come

home but this tradition will continue because young people know how to do it as they have participated in the rituals and have seen their parents do it from the time when they were children. The difference is that now they do it where they live and may adapt some of the rituals to suit their way of life instead of coming back to Songkhla, and they probably do it in a smaller scale in their own small family (Miss Chamnanmueang Chalita, interviewed on December, 27, 2013).

It can be said that the Chinese New Year tradition has been practiced by elderly people who have handed it down to their children from the past until the present, and some practices have changed along the time according to social change that never ends.

6. Discussion

Chinese society in Songkhla Province has given importance to the Chinese New Year tradition continuously even though globalization, at the same time, has brought in cultures from outside to this region. Moreover, people in this society are open to cultures from outside as well. Therefore, to survive in such a situation, the Chinese New Year tradition has to be adapted to accommodate social change as follows.

1. The importance of the Chinese New Year tradition will continue to exist as long as Thai Chinese in Songkhla Province still have faith and believe that paying respect to deities and ancestors helps them and their families to be successful in their occupation, prosperous in their work, and have courage to overcome obstacles in life in addition to showing gratitude towards them. Actually, this is not only to show their gratitude towards deceased ancestors but also alive ones because Thai Chinese descendants believe that their ancestors have helped make them and their family happy all year, and New Year is the time to thank them. According to Confucius, to be grateful to ones' ancestors and to reciprocate with loyalty is the awareness that younger generations should have. This is in accordance with the concept of Ganjanapan (2010) that regards this tradition as comprising a thinking process with movements for learning, creativity, and reproduction of culture as well as adaptation of the Thai Chinese community in Songkhla Province. The researchers think that this tradition can be passed down to younger generations because overseas Chinese in Songkhla Province place emphasis on creating and instilling identity of being Chinese in their offspring. Furthermore, the Chinese New Year tradition is not only to pay respect to deities and ancestors but also for family and relatives to celebrate New Year together to tighten their relationships, which is suitable for Thai society nowadays where consumerism is a growing trend. The Chinese New Year Tradition can help reduce generation gap in Chinese society in Songkhla Province, which corresponds with Na Thalang (1997)'s concept of beliefs in traditions that beliefs are important for living and have influence on society. Moreover, they dictate how people behave, and when individuals believe in something, it can motivate them take action in response to the belief. Praphaphitthayakon et al. (1987) state that a belief is something that a society has practiced continuously for a long time that it becomes regulations and guidelines for practice while Atthakon (1977) specifies that beliefs can result in rituals that have been practiced continuously that they eventually become traditions.

Beliefs in ancestral spirits, deceased parents and grandparents, especially, that their spirits are still around to protect their children result in ancestor worship as the rituals of paying respect to ancestors during Chinese New Year Festival among Thai Chinese in Songkhla Province. They practice it because it gives them confidence, and in doing some creative work, inspiration is needed and such confidence is believed to help them to be successful. This is in agreement with Chongrakwong (1999) who believes that beliefs are useful and important for living as well as influential to society because it designates behavioral expressions of people in society.

As can be seen, these beliefs have become part of the way of life for Thai Chinese in Songkhla Province who teach and do it so that their children can gradually absorb and eventually do it themselves. The beliefs have certainly become traditions for Thai Chinese in Songkhla Province to practice together with their family, relatives, and friends, and this is valuable for the family institute as well as Thai society.

Inheriting the Chinese New Year tradition-It can be concluded from the field data that the inheritance of the Chinese New Year tradition has been practiced with certain steps and the procedure has been deeply rooted and passed down verbally and repeatedly. "Teach, assign, do, be proud of the identity of our own ethnicity" has become the power of Thai Chinese in Songkhla Province that must be conserved and passed on because it is a phenomenon that makes the identity of Thai Chinese in Songkhla outstanding together with Songkhla Province. This is in line with Husserl (1954)'s concept in the book "The Crisis of European Sciences and Transcendental Phenomenology" that human experiences including imagination, dream, emotion, and feeling that have become human awareness. Thus, Thai Chinese in Songkhla Province have been instilled in themselves with the Chinese New Year Tradition that has been practiced and rooted down in the heart of everyone, which helps continue the inheritance to the following generations.

Adaptation of the Chinese New Year Tradition among Thai Chinese in Songkhla Province in the modern world amidst ethnic diversity that enters freely among Thai Chinese in Songkhla Province who are open to cultures from outside as a result of globalization that can weaken culture of each ethnic group. According to Roy & Andrews (1966), human, family, group, organization, and community constitute in a holistic adaptation system, which indicates that humans are able to think, to be conscious with awareness, and to consider efficiently in order to change themselves and their environments. This is the same as the Thai Chinese society in Songkhla Province who use their beliefs and faith in their gratitude towards their ancestors as encouragement and moral support to drive themselves and families towards success and as the core in changing and empower themselves in resisting cultures that come from outside continuously. They adapt the way they practice the Chinese New Year Tradition in accordance with social situations continuously so that it remains in the root of the strong Chinese culture in the mixed blood of Thai Chinese in Songkhla Province, and will continue to be an important tradition.

7. Conclusion

It can be concluded from the study that Thai Chinese in Songkhla Province give importance to gratitude towards their ancestors and reciprocate with loyalty in accordance with Confucius's concept. This belief has resulted in success in their occupation making them economically stable, and they consequently pass their belief on to the next generation by teaching, doing, and allowing participation in doing it. They do it little by little from the children are very young until they are old enough to carry it on by themselves. This maintains the Chinese New Year tradition as an important tradition that must be handed down to the younger generation continuously. This method of teaching is regarded as informal learning where learners absorb gratitude towards ancestors through a tradition. Even though it is now a globalization age, this tradition can still exist because it is adapted to correspond with social change. This indicates that Thai Chinese in Songkhla Province have unity in resisting the never-ending social change, and are able to carry on the Chinese New Year tradition so that it will continue its existence in Songkhla society.

8. Recommendations

1. The results of the study could be used as guidelines for preservation of other traditions among different ethnic groups that are fading away from society because of globalization.

2. Important traditions of other ethnic groups that are disappearing should be studied using the thinking process of informal learning, creativity and reproduction of such traditions in addition to the use of the adaptation of Thai Chinese in Songkhla Province under the context of social and natural environments as a case study.

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Social Capital as a Source of Business Advantages for a Woman Entrepreneur in the Context of Small-Size Business

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Abstract

Social capital can be defined as the totality of resources by virtue of possessing social ties. Grounded along the previous research, this research examines the relation between the social capital of woman entrepreneurs and their small companies' market performance mediated by competitive advantages. A survey of 257 entrepreneurs who is woman in Korea found that structural social capital and cognitive, social capital positively influence both differentiation advantage and cost advantage. The empirical results also indicate that those advantages affect market performance significantly. However, the impacts of relational social capital are not significant.

The main theoretical contribution of this study is that it confirms the importance of social capital for woman entrepreneurs. It also supports the relevance of social capital in producing competitive advantages which lead to a better market performance. This study provides woman entrepreneurs in SMBs with managerial implications. The result shows that woman entrepreneurs can create business advantage by creating social ties and promoting social capital.

Keywords: social capital, competitive advantage, market performance, woman entrepreneurs, SMB

1. Introduction

Creating own business has become a popular business trend in Korea. Since the 2000s, economic policies in Korea have refocused their attention from depending on the 'Chabol' to supporting SMEs in order to fortify the source of the national economy's competitive strength and to develop dynamic and creative economy. During the transition, women's role has been noteworthy and the number of woman entrepreneurs has increased.

Women who are vigorously pushing forward small business are a worldwide phenomenon. The pace of new business formation by women has out-paced the rate by men in the most countries already (Minniti & Naude 2010), and the issue of female entrepreneurship continues to draw substantial interest from the government, researcher and academics (Chung et al., 2012).

Nevertheless, today's woman entrepreneurs are facing many troubles in spite of their quantitative growth. They tend to small, weak and are not competitive yet. For example, more than 93% of woman entrepreneurs own small-scale enterprises that hire less than five people in Korea (Lee et al., 2011). The number of failed woman entrepreneurs is also rising quickly.

Thus, interpreting the success factors of woman entrepreneurs becomes a critical academic and managerial issue. The purpose of this study is to investigate the relationships between social capital and market performance to understand woman entrepreneurs working in small business. Understanding the meaning and value of social capital has become a considerably important research issue in social science given social capital's influence on a firm's ability to enhance the marketing capability (Adler & Kwon, 2002), and we believe that the social capital would be more important for woman entrepreneurs than for men counterparts. Some studies viewed gender difference as a key variable that influences entrepreneurship activities. These previous research results found men entrepreneurs have much stronger intentions to start their own business than women counterparts have (Sandra et al., 2006). However, some scholars argued that individual level variables such as gender were insufficient to explain who became an entrepreneur (Chung et al., 2012). A new research topic such as social capital can be a key to understand gender difference when the previous research results fail to reach an accord. .

The rest of this research progresses in the following order: a brief theoretical background of female entrepreneurship and social capital; a review of related literature, which leads to our research model conceptualization; an overview of research methodology and hypothesis of the current study; presentation of research findings, implications, and further research directions.

2. Theoretical Background

2.1 Rapid Progress of Woman Entrepreneurs

An entrepreneur is often defined as "someone who starts his own small business" (MacMillan Dictionary of Modern Economy, 1999, p. 216), and entrepreneurs are the most important players in the economy. They are creators of new wealth, new jobs and inventors of new products and service (Padma, 2013). As a result, it is very natural that more interests are paid to entrepreneurs and new business creation and recently woman entrepreneurs' activity to create new business is increasing.

Woman entrepreneurship is a new emerging economic force today. The period of 1975-1990 witnessed a dramatic increase in the number of women who entered self-employment. It was only 25% of self-employed workers in 1975 but the number grew to 30% by 1990 (Budig, 2006). Also the number of women-owned business increased by 42 percent between 1997 and 2006 (Padma, 2013). The welfare resulting from female entrepreneurship is higher than that resulting from the activity of men (Minniti, 2010). Woman entrepreneurs' presence as policy makers and expanding capacity to serve the global business cannot be ignored.

There are explanations for women who women leave the corporate to do new business creation. Fielden et al. (2003) identified a number of the key reasons in determining their decision to leave. According to their research, in general, women workers are not being taken seriously and they consistently encounter a glass ceiling in their promotion and poorer pay. As a result, they see men promoted ahead of them and feel isolated in their corporation. To solve the problem, some of the women workers become entrepreneurs and start their own business. On the motivation study to explain women's new business creation, Mackay (2001) identifies the main reasons for women to become entrepreneurs as independence, autonomy, job loss and more flexibility giving women more opportunities to spend time together with their family members.

However, the importance of woman entrepreneurs in Korea had not been emphasized before the 1990s. Traditionally, Korean women have existed within the Confucious framework of '*Hyunmo Yangcheo*' ideology which means 'loving wife and good mother' in Korean. As a result, Korean women are expected to stay inside their homes traditionally. These low expectations about the societal role of women have kept them in traditional role regardless of rapid social changes and women's capability to do business. According to Mackie (2003), these traditional roles in Asia nations are changing now. From 1970s to 1990s, Japanese feminist groups worked to reform the practice and Korean women also worked in their ways.

Compared to other Asian women, Korean women have a better position in creating new business. Female entrepreneurs in Korea are usually innovation driven and better educated comparing to other Asian nations (Padma, 2013). In 2001, Korea was ranked to be the higher group of necessity entrepreneurship in Asia and recently, the Korean government and domestic policies show increased attention to encouraging female entrepreneurship. None the less gender discrimination in the business world remains in Korea society, the Korean government and companies support reform to stimulate more woman entrepreneurs.

However, resistance remains for changing the country's male-dominated business culture and customs. Related entrepreneurship research is a man-oriented activity and woman is stll out of concern. Only a limited number of entrepreneurship studies focused on female-owned business (Berg, 1997). Also, As a result, most entrepreneurship theories that have been developed can be named as theories of male entrepreneurship since they are based on studies that excluded women (Budig, 2006).

2.2 Characteristics of Woman Entrepreneurs

There has been relatively little research on woman entrepreneurs. One of the reasons for the scarcity of related research is that people believe there is not any actual differences between men and woman entrepreneurs' activities to be a successful one (Gartner, 2001). However, thanks to an increase in the availability of data and to an improvement in the related research, a significant amount of facts on female entrepreneurs are revealed.

Minniti and Naude (2010) insisted that research on female entrepreneurship has expanded to a variety of disciplines. In the 1970s and 1980s, most of these studies tried to identify the role of gender and focused on who the women entrepreneur was compared to men entrepreneur. In the 1990s, these studies were inspired by feminism and paid more attention to the prominent role of women entrepreneur. At the same time, other studies tried to link female entrepreneurship to the allocation of family resources, marriage and childbearing decision,

self-confidence and poverty in an alternative to the feminist approach (Snyder, 1995; Blau & Kahn, 2007). In the 2000s, research has been conducted on issues related to professional characteristics, motherhood, family position, human capital, and social entrepreneurship (Steward et al., 2003; William, 2004).

The majority of early study tended to find more similarities than differences between men and woman entrepreneurs. According to these studies, both men and woman entrepreneurs often cited reasons such as avoiding low pay, escaping supervision, seeking independence and opportunity as factors driving their motivations to be an entrepreneur (Birley, 1989; Hisrich et al., 1996; Fielden et al., 2003).

However, gender difference becomes a major research topic again. In her book 'Understanding the Gender Gap', Goldin (1990) legitimized the study of women's labor behavior and inspired a significant amount of research on female entrepreneurship. Since then many researchers have studied the gender differences in entrepreneurship. Researchers suggest that there is no direct link between formal education and business success (Stanger et al., 2002). However, gender difference is likely to exist. For instance, man and woman entrepreneurs are different in family responsibilities. Women are more likely than men to shoulder family responsibilities and this leads to women having to combine their work duties and home responsibilities, limiting the scope of business (Low, 2008; Dhaliwal et al., 2009). Research results indicate that the probability of self-employment is higher for men. According to Minniti and Levesque (2008), early-stage entrepreneurial activity participation for men are 50 percent higher than those of women in most countries. The existence of a ratio of early-stage female to male entrepreneurship suggests that entrepreneurial attitudes are influenced by gender factor. It is also known that women's business tends to be smaller and to grow less than those owned by men (Coleman, 2007).

Women and men have different socioeconomic characteristics such as education, wealth, social status. Female entrepreneurs tend to possess fewer years of job experience than men (Lee & Rendall, 2001). Female and male entrepreneurs also differ to their personal and business profile. They are different in business sectors, products and service, management goals and business structure (Verhies, 2003).

The gender difference in terms of earning is more clear in the SME sector. It is known that female entrepreneurs has less work experience compare to the male entrepreneurs and self-employed women earn less than self-employed men (Devine, 1994, Parker, 2009). Profitability also worse than men's business and their business generate lower sales turnover than men, even in same industry comparison (Buttner, 1993; Chaganti & Parasuraman, 1996).

2.3 Social Capital and Business Success

Recently, some researchers insist that one of the biggest differences between man and woman can be found in the area regard to their networking strategy (Shim & Eastlick, 1998). According to their research, female entrepreneurs' social network differs from the male counterparts' network. Aldrich (1989) found that male entrepreneurs' social network rarely encompass females while female entrepreneurs' social networks encompass more male.

To explain these differences of networking activities between gender, this study tries to use the social capital concept which is relatively new in marketing studies. The concept of social capital has a long history in the social studies. The proposition of social capital theory insists that social relationships are valuable because they make their members to acquire necessary resources from one another through social networks. In the oriental countries social ties have been a very important factor for business success. For instance, 'Quanxi' is a very popular way to do business in China (Peng & Luo, 2000). The development of social capital with key business accounts in the Chinese market is not an option but a must and Korea market is not an exception. As a result, social capital, which is a joint concern for all social science today is used across multiple disciplines (Batt, 2008). Yet marketing researchers have been slow in investigating the implications of social capital in business practice.

The social capital study focuses on accessing intangible resources such as goodwill from the social network and emphasizes the networks and relationships as a critical component. According to Nahapiet and Ghoshal (1998), they define social capital as the sum of current and potential resources that generated by relationship network. Ostrom (2000) states that social capital refers to shared knowledge, understandings, norms, rules and expectations about patterns of interaction that groups of individuals bring to a recurrent activity. Bowles and Ginitis (2002) define social capital as the trust, a willingness to live by the norms that one's community requires, concern for one's associates. Griffith and Harvey (2004) insist that social capital is an intangible asset that is created via social relations and that can be used to facilitate action for the owner. Batt (2008) view social capital as the mobilization, use and benefit gained through accessing present and future resources through social networks. The components of social capital can be conceptualized at three different levels (Griffith and Harvey 2004). They are national level, organizational level and individual level (Kostova & Roth 2003; Griffith &

Harvey, 2004). On the other hand, social capital can be divided into three dimensions: the structural dimension, the relationship dimension, and the cognitive dimension (Nahapiet & Ghoshal, 1998). But in spite of many researches, there is no single agreed academic definition of social capital yet (Adler & Kwon, 2002).

Facing these differences in defining the concept, identifying the roles and components of social capital become essential to understand the importance of social capital in order to upgrade woman entrepreneurs' competencies. Social capital is known to support entrepreneurs identify business opportunities. The entrepreneur can utilize their own contacts to expand their business and boost their competitive advantage (Lerner et al., 1995). The effects of social capital on a successive business can be explained by using networking theory. Luczak et al. (2010) suggest that successful business owner possesses a positive pattern of social networking behavior and these behaviors aids the owners in their acquisition of scarce resources needed to grow. According to Leana and Buren (1999), these effects are possible because there are two underlying dimensions: associability and trust (Leana & Van Buren, 1999). Associablity implies that the individual can achieve their personal goal through the efforts and participation to meet group goals. Trust is one's confidence in another's reliability and integrity that generate long-term relationship.

Recent studies reveal that the relationships between woman entrepreneurs and social capital is especially noteworthy. Female entrepreneurs are good at expanding their social capital as a means of securing enough resource to start their business (Chung et al., 2012). A series of researches insist that women who become business owners lack many of the characteristics essential for business success and their business's characteristics are low income, low turnover and limited growth opportunities (Moore, 1999; Marlow & Carter 2004). They also have fewer role models than men have, and the fact results in more possibility of failure in competition (Mattis, 2004). Also, International Labor Organization (ILO) reported that the problems that were being faced by woman entrepreneurs were a high rate of failure and the lack of networks that would allow them to facilitate business is one of the main reasons (Lee et al., 2011). Therefore, networking is important for female business owners as it can increase the success rate of their business (Sharafizad, 2011). That is the reason why building social networks are important to solve most woman entrepreneurs' problems. Women's reliance on smaller strong-tie networks would produce deep effects on their market performance and business surroundings (Minniti, 2010). Yunus (2007) has shown the importance of knowing other entrepreneurs and networks for female entrepreneurs' creating new business.

3. Research Model and Hypothesis

3.1 Social Capital and Competitive Advantage

Competitive advantage results from many different kinds of factors, including M&A, diversification types, internal structure, human resource, management style and so on (Ma, 1999; King, 2007; Ismail et al., 2010). Lerner et al. (1995) insisted that relations formed by female entrepreneurs have a positive effect on their business. Thus, it is not strange to say that an entrepreneur's social capital would affect a firm's competitive advantages. For minorities who tend to be poor in conventionally perceived resources, the use of social capital becomes a more important source of advantage (Lin, 2007). SMEs and female entrepreneurs who are business minorities in Korea also can get benefits from a dense social network of the entrepreneur.

Researchers within the business discipline are also using social capital to explain precedents of firm performance (Batjargal, 2003). These researchers explain that social network can increase likelihood of business success (Smith & Lohrke, 2008). Griffith and Harvey (2004) pay attention to a marketing manager's social capital in the market and company organization. They believe that social capital can facilitate information transfer and learning and this enables marketing managers to play a strong strategic role within a firm's network. Robben (1984) insists that entrepreneurs must expand their networks to gain a competitive advantage. It is no exaggeration to say that a small business requires myriad resources from information and capital to symbolic support (Singh et al., 1986) and those resources can be delivered from ties with entities within a social network. .

Obtaining the necessary resources has close relationships with the ability of the entrepreneur to create sustainable relationships with environments. As a result, to launch a new business and to be a successful entrepreneur, he or she must develop social exchange relationships (Hite, 2005; Smith & Lohrke, 2008). Anderson and Jack (2002) insist that social capital facilitates coordination and cooperation of business participants by bonding the parties involved. Social capital facilitates the spread of knowledge and innovation (Batt, 2008) and social network, including insider, partner and weak links can signal a warning and influence entrepreneurial alertness (Ardichvili et al., 2003). Conversely, a lack of social capital limits economic opportunities and cause marketing to work less efficiently (Rose-Ackerman, 2001). Also, social capital is hard to

be copied and provides entrepreneurs with unique resources that lead to competitive advantages (Luczak et al., 2010). Social relationships are complex and therefore become a source of sustainable long-term advantages.

Chung et al. (2012) insisted that opportunity is critically important to start-up and is the core of entrepreneurship. According to their study, social capital is the main source of opportunity identification and will affect the future growth potential of the entire new start up.

Based on these prior researches, this study insists that strong networks with high level of social capital play an important role in enforcing woman entrepreneurs' differentiation advantage.

Hypothesis 1. Structural social capital will positively affect the differentiation advantage of female entrepreneurs.

Hypothesis 2. Cognitive social capital will positively affect the differentiation advantage of female entrepreneurs.

Hypothesis 3. Relational social capital will positively affect the differentiation advantage of female entrepreneurs.

It is known that social capital help entrepreneurs make the better market performance. Bridging social capital can provide a start-up with a reference and also equip the organization to avoid uncertainty in the environment. Social capital is built on the relationships which require proper maintenance to be a marketing advantage, however, properly managed social capital can be used in different ways to obtain positive outcomes (Aston et al., 1999).

One of the examples is to create cost advantage. The social network can be a source of priceless information which improves a company's cost efficiency. Smith and Lohrke (2008) argue that the proper information can be helpful in eliminating unnecessary cost. Chuang et al. (2012) insisted that an organization with bonding social capital can work more smoothly and reduce its internal resource cost. Bridging social capital can provide the organization with customer information and market intelligence (Chong & Gibbons, 1997).

In general, social ties and relationships provide persistent access to resources including free or reduced labor as well as access to better suppliers or distributors (Davidson & Honig, 2003). Also, Social capital can reduce transaction cost of entrepreneurship by yielding a higher level of trust (Fukuyama, 1995; Batt, 2008).

Based on these prior researches, we believe that social capital could be helpful in reducing the cost of conducting everyday affairs and of doing business.

Hypothesis 4. Structural social capital will positively affect the cost advantage of female entrepreneurs.

Hypothesis 5. Cognitive social capital will positively affect the cost advantage of female entrepreneurs.

Hypothesis 6. Relational social capital will positively affect the cost advantage of female entrepreneurs.

3.2 Competitive Advantage and Performance

A competitive advantage is conceptualized as the implementation of a strategy not currently being implemented by other firms that facilitates the reduction of costs, and the exploitation of market opportunities (Barney, 1991). A specific resource or capability could be found to exhibit a strong correlation with competitive advantage, according to the resource heterogeneity approach. In the theory, a specific resource or capability is argued to be rare and valuable, and then the amount of that resource or capability possessed by a firm can be a source of competitive advantage (Barny, 1991; Newbert, 2008).

Social capital possessed by an entrepreneur can qualify the conditions to be a firm's resource and can affects a firm's market performance. It is logical to assume that a firm that attain a competitive advantage will be able to improve its market performance in ways that are different from its competitors whether in the form of lower cost or different value.

Ismail et al. (2010) insist that firms that enjoy cost-based competitive advantage over their rivals have been shown to exhibit better performance. Those costs-based advantages such as lower manufacturing cost, lower production cost have significant relationships with positive market performance in general (Morgan et al., 2004). In general, a firm with a competitive advantage has created more economic performance than its competitors (Peteraf & Barney, 2003).

Founded on these prior researches, we believe that competitive advantages such as differentiation advantage and price advantage will affect market performance.

Hypothesis 7. Differentiation advantage will positively affect the perceived market performance of female entrepreneurs.

Hypothesis 8. Cost advantage will positively affect the perceived market performance of female entrepreneurs.
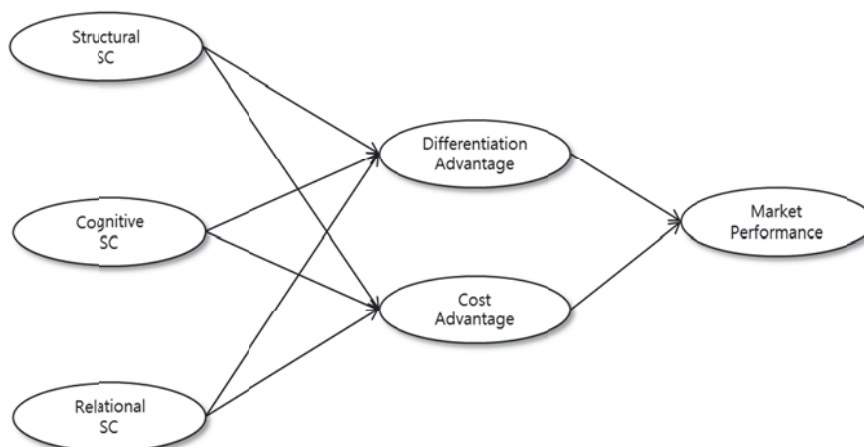

Figure 1. Research model

4. Methodology

4.1 Methodology

This study's intention is to identify the relationship between social capital and market performance mediated by competitive advantage. To achieve the proposed objectives of the research, structural equation model which is a quantitative study was selected. A quantitative analysis is proper for the case as it makes it possible to find empirical relationships between variables.

To achieve the research goal, proper measures of the constructs need to be developed before empirical test. In the first stage, all measures were borrowed from the previous literature and modified slightly to translate into Korean language for the survey. In the second stage, an initial validation process was held with the help from marketing academics and practitioners. The participants were chosen based on their prior experience and knowledge: two marketing professors who have interests in the topic and two marketing managers who are woman entrepreneurs. Through these two step process, a set of six constructs with related items emerged and the research questionnaire had been refined. These items are positively coded.

4.2 Operationalization and Measures

Social capital was operationalized into the three dimensions which are structural, relational and cognitive dimension (Nahapiet & Ghoshal, 1998) and competitive advantage is defined as a degree to which a firm has reduced costs and exploited opportunities (Barney, 1991). Therefore, in the research a competitive advantage is classified into two variables and measured: competitive advantage and cost advantage. Among the many different kinds of a firm's performance, financial performance measures are used most widely in the strategy literature (Barney, 1991; Combs & Ketchen, 1999; Newbert, 2008). However, it is highly difficult to measure a firm's objective financial performance because a private small firms characteristics that don't want to reveal their financial status to outsiders. Thus market performance was measured by adopting Morgan et al. (2004)'s widely used market performance scale. All these items are positively coded.

Table 1. List of measurement

Construct		Measurement	Source
Cognitive social capital	1.	Members who work in the firm are committed to the goal of this firm	Carr et al. (2011)
	2.	There is a common purpose shared among members who work at this firm	
	3.	Members who work in this firm view themselves as partners in charting the firm's direction	
	4.	Members who work in this firm share the same vision for the future of this firm	
	5.	Members who work in this firm share the same goal for the future of this firm	
Structural social capital	1.	Members who work in this firm engages in honest communication with one another	Carr et al. (2011)
	2.	Members who work in this firm have no hidden agenda	

Construct	Measurement	Source
	3. Members who work in this firm willingly share information with one another	
	4. Members who work in this firm takes advantage of their relationships to share information	
Relational social capital	1. Members who work in this firm have confidence in one another	Carr et al. (2011)
	2. Members who work in this firm show a great deal of integrity with each other	
	3. Members who work in this firm trust each other	
	4. Members who work in this firm are usually considerate of each other's feeling	
	5. Members who work at this firm believe in each other	
Market differentiation advantage	"Please rate your business relative to your major competitors in terms of marketing capabilities."	Morgan et al. (2004), Vorhies and Morgan (2005)
	1. Development of customer-driven product	
	2. Quality of product and service	
	3. Ability to provide differentiated value	
	4. Customer service and support	
Cost advantage	"Please rate your business relative to your major competitors in terms of marketing capabilities."	Morgan et al. (2004), Vorhies and Morgan (2005)
	1. Lower cost than competitor's cost	
	2. Effective management for cost control	
	3. Lower price to customers.. .	
Market performance	"Please evaluate the market performance of your business over the past year (the next twelve months) relative to your major competitor"	Vorhies and Morgan (2005), Zhou et al. (2009)
	1. Growth in sales revenue	
	2. Increasing sales	
	3. Reaching a financial goal	

4.3 Research Sampling

The data as collected from face-to-face direct personal interviews with woman entrepreneurs in Korea from April to May 2014. Finally, a data set was generated based on the interview survey. 257 samples were collected from major cities including Seoul, which were confined only to business owners who has less than ten employees. According to the related Korean laws, small business can be defined by the number of employees and ten is the maximum number.

Table 2. Sample characteristics

Category	Explanation	Frequency (%)
Age group	Under 29	34 (13.%)
	30-39	67 (26.1%)
	40-49	98 (38.1%)
	50-59	48 (18.7%)
	Above 60	10 (3.9%)
Education Experience	High school	108 (42.0%)
	Community college	52 (20.2%)
	University	81 (31.5%)
	Graduate school	16 (6.2%)
Business Domain	Manufacturing	7 (2.7%)
	Construction	3 (1.2%)
	Retailing & wholesaling	88 (34.2%)
	Restaurant	90 (35.%)
	Service	60 (23.%)
	Others	9 (3.5%)
Size by employees	1-2	111 (43.%)
	3-4	103 (40.1%)
	5-6	39 (15.%)
	7-8	1 (0.4%)
	9-10	3 (1.2%)

5. Research Results

5.1 Reliability and Validity

Reliability and validity of measures were tested in two continuous stages: General Reliability Analysis and Factor Analysis. Internal consistency was assessed by calculating Cronbach's alpha score. Cronbach's alpha scores are found to be greater than 0.8 and the reliability are accepted in accordance with Nunnally (1967)'s rule.

Table 3. Cronbach's alpha

	Construct	Mean (Std. Dev.)	Cronbach's alpha	Number of items
Exogenous variables	Cognitive social capital	3.70(.90)	.923	5
	Structural social capital	2.80(1.11)	.922	4
	Relational social capital	3.73(.81)	.808	5
Endogenous variables	Differentiation Advantage	3.41(.83)	.828	3
	Cost Advantage	3.26(.81)	.866	2
	Market performance	3.07(1.06)	.927	3

As a next step factor analysis was performed to test the validity of variables. For the analysis, we adopted PCA (principal component analysis) extraction method with a VARIMAX rotation option. Three factors in exogenous variables and three factors from endogenous variables are extracted successfully.

Table 4. Factor analysis of exogenous variables

Construct	Igen value	Item	Factor 1	Factor 2	Factor 3
Cognitive, social capital	5.606	sc10	**.881**	.042	.163
		sc13	**.858**	.074	.148
		sc12	**.856**	.087	.192
		sc11	**.856**	.086	.246
		sc14	**.780**	.117	.267
Structural social capital	2.768	sc03	.109	**.916**	.099
		sc04	.080	**.912**	.073
		sc02	.037	**.891**	.121
		sc01	.105	**.822**	.202
Relational social capital	1.636	sc06	.147	-.021	**.822**
		sc05	.132	.008	**.806**
		sc09	.196	.260	**.677**
		sc07	.281	.242	**.639**
		sc08	.215	.161	**.618**
	% of variance		40.041%	19.768%	11.688%
	Total % of variance			71.497%	

Table 5. Factor analysis of endogenous variables

Construct	Igen value	Item	Factor 1	Factor 2	Factor 3
Market performance	2.613	mp02	**.913**	.218	.164
		mp03	**.885**	.183	.165
		mp01	**.877**	.294	.115
Differentiation advantage	2.227	ad04	.150	**.842**	.175
		ad03	.206	**.841**	.191
		ad05	.328	**.762**	.136
Cost advantage	1.518	ad02	.087	.175	**.855**
		ad01	.218	.182	**.796**
	% of variance		32.664%	27.835%	18.974%
	Total % of variance			79.474%	

5.2 Test Results

This study adopts SEM (structural equation modeling) technique to prove the theory. The fit test resulted in chi-square statistics of 512.777 (p=.000, d.f=219) and chi-square value was satisfactory in general. Other fit

statistics such as GFI, CFI, NFI, SRMR could be more proper for assessing the model fit than single chi-square value (Bagozzi and Yi 1988). In the testing all these fits also indicates satisfactory outcomes. Therefore, further analysis of a causal relationship between the variables was conducted as a final stage.

According to the results, hypothesis H1, H2, H4, H5, H7, and H8 are significant while H3 and H6 are not significant. Both structural social capital and cognitive social capital are positively and directly linked to differentiation advantage and cost advantage. Also, these advantages affect market performance positively. However, the effects of relational social capital are not supported. Its relationship with any kind of advantage are not statistically supported.

Table 6. SEM analysis results

Hypothesis	Estimate (Std. estimate)	S.E	C.R	p* (p<.05)
H1. Structural SC → Differentiation advantage	.315 (.317)	.066	4.750	.000*
H2. Cognitive SC → Differentiation advantage	.502 (.565)	.072	6.968	.000*
H3. Relational SC → Differentiation advantage	-.186 (-.163)	.095	-1.954	.051*
H4. Structural SC → Cost advantage	.473 (.451)	.082	5.798	.000*
H5. Cognitive SC → Cost advantage	.205 (.219)	.081	2.540	.011*
H6. Relational SC → Cost advantage	-.019 (-.016)	.114	-.166	.868*
H7. Differentiation advantage → Market performance	.603 (.507)	.081	7.417	.000*
H8. Cost advantage → Market performance	.297 (.263)	.085	3.504	.000*

* Model fit = Chi-square=512.777 (d.f=219, p=.000), GFI=.855, CFI=.923, NFI=.874, SRMR=.068, RMSEA=.072

6. Conclusions

6.1 Finding and Implication

This research has surveyed some of the principal facts about woman entrepreneurship and presents empirical findings about the relationship between major variable. There are yet many hurdles to be a successful entrepreneur, particularly in case of a woman. This work suggests a possibility that a woman's social capital could be an answer to gain business advantages. This study proposes several empirical findings that have the potential for further research.

First, this study addresses the importance of woman entrepreneurs in the small business. Due to their increasing economic power, more women start their own business and become new business actors. The demand for research to explain this new movement is emphasized once more.

Second, the use of social capital components and their relationships with marketing advantages are offered. Social capital consists of three variables which are structural, cognitive and relational social capital. This study finds out that both differentiation and cost advantage are affected by cognitive and structural social capital. This outcome is coherent with the previous researches on women entrepreneur. According to the Kauffman Foundation Research (Padma, 2013), woman entrepreneurs are concerned about IP (intellectual property), seek mentoring and experienced, well developed professional networks. Most woman entrepreneurs know that social capital building through networking is an effectual means to compete. However, relational social capital's effects on those advantages are not.

Third, differentiation and cost advantage affect market performance positively as the study expected. It gives implication that those business advantages are too essential to be neglected by any gender of entrepreneurs. Woman entrepreneurs also make an attempt to establish substantial business advantages just like man counterparts.

6.2 Limitation

Regardless the findings of this study, there are several research limitations. Confirmation of these speculations must await further research.

First, this research focused on social capital of woman entrepreneurs and its effects on market performance mediated by business advantages. However, there are more variables that can give impact to the relationships. Further research could consider more extensive variable to explain women entrepreneur.

Second, the generalization of the research findings will be limited to Asian nations because the sample was mainly made from female Korean business owners. Confucianism is very popular among the Asian countries such as China, Japan, Vietnam and Korea and there has been a similar negative viewpoint about the business activities of adult females. Thus, this research results can be portioned out among Asian countries. However, it is not clear if the findings can be applied to western nations with different cultural backgrounds. The comparison between Asian and Western countries will provide readers with more practical implications.

Third, this study doesn't consider country differences in women entrepreneur's motivations. Granting to the GEM 2008 (Global Entrepreneur Monitor, 2008) report, there are difference in motivation even among Asian nations. For instance Malaysian and China are efficiency driven, while Australia, Japan and Korea are innovation driven. There is a possibility that women have different motivations based on the economic situation of their nation. Women in poor countries start a business out of necessity because of the lack of employment in the job market, and women in rich countries start business even when other job opportunities exist to get a better paid job. As a result this research needs to be expanded to more general settings across countries.

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The Relationship between Cognitive Emotion Regulation and Job Stress: Moderating Role of Social Support

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Abstract

The present study examined the relationship between cognitive emotion regulation, social support and job stress. First, we investigated the relationship between cognitive emotion regulation and job stress. Second, we also have investigated that social support from work (peers or supervisors) and non-work (family or social networks) have a moderatoring effect on the relationship between cognitive emotion regulation and job stress. Based on a survey of 127 employees, we found support for our hypotheses that there is a negative relationship between cognitive emotion regulation and job stress. The results also show that work-related and non-work related social support positively moderates the relationship between cognitive emotion regulation and job stress. Results and implications are discussed and suggestions for future research are provided.

Keywords: cognitive emotion regulation, work related social support, non-work related social support, job stress

1. Introduction

The relationship between regulation and stress in the workplace is gaining closer attention in the literature. The ability and to control emotion is important for employees. Given the fact that humans in general and employees in specific live in a more stressful environment, it becomes essential to successfully regulate emotions. Emotions and emotion-based behavior is at the center of any social interaction. This is also true for social interactions at the workplace. Social interactions at the workplace don't always allow for the exhibition and expression of all the emotions an individual may have. The social context at work often requires the regulation of such experiences. Cognitive coping processes have been related to the experience and expression of emotions for a considerable time.

Perceived stress refers to how much stress an individual experiences as a function of a several factors such as stressful events, coping strategies, and personality differences. Stress, in general can be understood as a result of the interaction between the person and its environment. Individuals however, are not always at liberty to act upon their emotions (Grandey, 2003). Instead they are required to control their emotions while trying to cope with a variety of stressful events (Lazarus & Folkman, 1984). Thus, a stressful environment requires emotion regulation skills.

In the present study, we are particularly interested in looking at the relationship between cognitive emotion regulation and job stress and at the moderating role of social support (Figure 1).
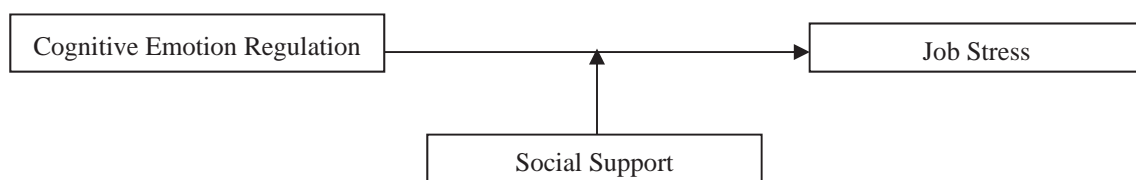

Figure 1. Model of the study

2. Literature Review

Emotions refer to physiological arousal and cognitive appraisal of the situation (Grandey, 2000). Emotions arise when something important to us is at stake. Emotions often result in a coordinated set of behavioral, experiential, and physiological response tendencies that together influence how we respond to perceived challenges and opportunities (Gross, 2002). By regulating the arousal and cognitions that define emotions, individuals can control their emotional expressions to fit the display rules of the situation (Goffman, 1959).

2.1 Cognitive Emotion Regulation and Job Stress

Cognitive emotion regulation can be briefly defined as the management of emotions (Garnefski & Kraaij, 2007; Thompson, 1991). It is considered as part of the broader concept of emotion regulation defined as "all the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features" (Gross, 1999; Thompson, 1994). Research related to this topic has shown that emotion regulation by cognition is correlated with human life and it helps people to keep control over their emotions during or after the experience of threatening or stressful events (e.g., Garnefski et al., 2001; Garnefski, & van den Kommer et al., 2002). This cognitive emotion regulation theory considers cognitive strategies in a conceptually pure way. Thus, it is separated from behavioral strategies in this manner (Garnefski et al., 2001; Garnefski et al., 2002; Garnefski & Kraaij, 2006).

The Cognitive Emotion Regulation Questionnaire (CERQ) was developed by Garnefski, Kraaij, & Spinhoven, (2001). It measures nine cognitive emotion regulation strategies on theoretical and empirical bases. Each strategy refers to what someone thinks after the experience of threatening or stressful events. The questionnaire has been used in a number of studies focusing on the relationships between cognitive emotion regulation strategies and stress; mental health; depression and anxiety. The strategies in this model are described as (Garnefski & Kraaij, 2007); self-blame, other blame, rumination, catastrophizing, acceptance, putting into perspective, positive refocus, refocus on planning, and positive reappraisal.

Self-blame is described as the thoughts which put the blame that you have experienced on yourself. Other-blame is the opposite of the self-blame that you blame what you have experienced on the environment or another person. Rumination, which indicates to focusing on thought, is described as the thoughts or feelings associated with the negative events. Catastrophizing is described as the thoughts that emphasize the terror of what you have experienced. Acceptance is described as the thoughts that indicate resigning yourself to what has happened or thoughts of accepting what you have experienced. Putting into perspective is described as the thoughts of brushing aside the seriousness of the event/emphasizing the relativity when comparing it to other events. Positive refocusing emphasizes the joyful and pleasant thinking instead of actual event. Refocus on planning emphasizes the thoughts which indicate the taken steps to handle the negative events. The last one is positive reappraisal that refers to thoughts of creating a positive meaning to the event in terms of personal growth (Garnefski & Kraaij, 2007).

There are some studies in the literature that mentioned the relationship between cognitive emotion regulation and stress (e.g., Carlson & Perrewe, 1999; Garnefski et al., 2001; Garnefski et al., 2003; Garnefski & Kraaij, 2006; Jermann et al., 2006; Kraaij et al., 2003).   In the literature, social support has been emphasized as a solution to stressfull life events or organizational stress (Thomas & Ganster, 1995). Lower levels of stress often result in content and satisfied employees, which in turn lead to an increased performance at work among other things. People, who have high levels of cognitive control over their emotions, are in effect marginalizing the influence of emotions. This way, cognitive emotional regulation absorbes some of the emotions that would be otherwise felt more substantially. In essence, the higher the ability is in which someone can regulate their emotions, the lesser the stress would be. Based on the arguments above, we pose the following hypothesis.

Hypothesis 1: Cognitive emotion regulation is negatively related to job stress.

2.2 Social Support and Job Stress

Social support refers to the exchange of resources between at least two persons, with the aim of helping the person who receives the support (House, 1981). Social support can be defined as resources available for others and important tools for coping with work-family conflict as they can mitigate the strain associated with stressors in different life domains. It can be provided in various ways that may include emotional concern as well as instrumental aid (House, 1981). The degree of support an employee receives is closely related to the level of stress one might experience in the workplace (Carlson & Perrewe, 1999). Further, social support also leads to additional positive outcomes such as incresaed job satisfaction and incresead organizational identification (Parasuraman et al., 1992).

Social support is divided into two parts. The first one indicating the work-related social support that emphasizes social support given from from supervisors or peers. This could positively enhance conditions of the work environment. A supportive supervisor, for example, may incease the fexibility and positiveness of the work conditions by showing concern for an employee's family related problems (Carlson & Perrewe, 1999). The second type of social support is non-work related social support. Alternatively, social support provided outside the work could lead to reduction of work-family conflict (Burke, 1988). Family support has been shown to be an important factors in reducing work-nonwork conflict (Carlson & Perrewe, 1999), while supportive social networks has been associated with lower levels of stress (Beutell & Greenhaus, 1982; Carlson & Perrewe, 1999; McCubbin et al., 1980). Various researches have considered social support as a moderating variable that enables reduced levels of stress (e.g., Ganster et al., 1986; Greenhaus & Parasuraman, 1986; Fried & Tiegs, 1993; Ray & Miller, 1994).

Based on the discussion of the literature, we are interested to investigate the relationship between cognitive emotion regulation and job stress. Furthermore, we also wanted to see whether social support moderates the relationship between cognitive emotion regulation and job stress. Thus, we pose the following hypotheses;

Hypothesis 2a: Work related social support will moderate the relationship between cognitive emotion regulation and job stress.

Hypothesis 2b: Non-work related social support will moderate the relationship between cognitive emotion regulation and job stress.

3. Method

3.1 Sample

To test the stated hypotheses, a survey has been conducted to employees of an industrial organization in Kayseri, a city of Turkey. Participants of the survey had to be full-time employee of the organization in which the survey was conducted. Questionnaires were given to respondents in person in order to increase participation as well as to ensure accuracy. The researchers' presence allowed clarifying and misunderstandings related to the survey items. As a result of this approach we achieved a response rate close to 100%, thus avoiding any possible non-response biases. In the final sample, there were 327 respondents. 71% of the respondents were male while 29% were female. The mean age was 41.3 years; while the average job experience with the organization was 11.2 years.

3.2 Measures

To asses Cognitive Emotion Regulation, the 36-item Cognitive Emotion Regulation Scale, which was improved by Garnefski & Kraaij (2007), is used in this study. In addition, to assess the Work-related and Non-work related Social Support, we used the ten-item scale that was developed by Etzion (1984) and used by Carlson & Perrewe, 1999. Seven of the items in work related social support correspond to the degree to which conditions such as appreciation and recognition is present in the workplace. The other three items correspond to the quality of the relationship subjects have with their supervisors, coworkers, and subordinates. In the non-work related social support scale, the seven items are similar to work related items but the final three items correspond to the quality of the relationship subjects have with their spouses, families, and friends.

Furthermore, to assess the Job Stress scale, which was developed by Howell et al. (1988), was taken from Maxwell et al. (2005). The scale has 3-items with a Cronbach's alpha values of .79, which is above the .70 level accepted as a reliable scale.

4. Results

The descriptive statistics showing the means, standard deviations and the correlations among the variables are given in Table 1. As can be seen, there are significant correlations between Cognitive Emotion Regulation, work related social support, non-work related social support and job stress.

Table 1. Mean, standard deviations and correlations

Variable	Mean	SD	1	2	3	4
1. Cognitive Emotion Regulation	3.27	.91	-			
2. Work Related Social Support	3.19	.87	.38**	-		
3. Non-work Related Social Support	3.09	.81	.34**	.49**	-	
4. Job Stress	2.89	1.12	-.31**	-.24**	-.19*	-

*p<.05, **p<.01

The correlations of the variables are all positive and don't seem to present any problems of multi-collinearity. Correlation statistics indicate that cognitive emotion regulation is negatively related to job stress (r=-.31; p<.01). Also, as expected, there are negative correlations between job stress and work related social support (r=-.24; p<.01); job stress and non-work related support (r=-.19; p<.05).

The results for the hierarchical regression analyses are given in Table 2.

Table 2. Regression analyses for moderation

	DV: Job Stress (β)	Adjusted R^2	ΔR^2	F Change
Model 1				
Cognitive Emotion Regulation (CER)	-.342**	.21	.16	98.47**
Model 2				
Cognitive Emotion Regulation (CER)	-.284**			
Work Related Social Support (WSS)	-.261**	.24	.17	103.19**
Model 3				
Interaction (CER* WSS)	.287**	.26	.19	108.42**
Model 2				
Cognitive Emotion Regulation (CER)	-.371**			
Non-work Related Social Support (NWSS)	-.227**	.19	.11	86.02**
Model 3				
Interaction (CER* NWSS)	.243**	.18	.10	83.21**

*p < .05, **p < .01; Standardized betas are shown.

To test out hypotheses, we used regression in order to analyze the effects of our variables on the outcome variable "job stress". We used hierarchical regression to analyze the hypothesized relationships, whereby the independent variables were entered in to the regression model in separate stages.

Our first hypothesis predicted a negative correlation between cognitive emotion regulation, and stress. As predicted, results indicate a significant negative correlation between cognitive emotion regulation and stress, r = -.310, n = 127, p < .01. Examining the regresssion coefficient also shows support for Hypothesis 1 with a regression coefficient of β= -.284 (p < .01). In other words, the higher the cognitive emotion regulation is, the lower the stress level becomes. People who have the ability to cognitively control their emotions reducing the effects of outside events or behaviors so that it leads them to perceive less stress. In a way, cognitive emotional regulation acts as a filter mechanism that reduces the emotions felt due to arousals.

Our second hypothesis predicted that both work related (Hypothesis 2a) and non-work related (Hypothesis 2b) social support systems would moderate the relationship between cognitive emotional regulation. Results show that work-related and non-work related social supports moderate the relationship between cognitive emotional regulation and job stress.

As can be seen from Table 2, when the work related support (WSS) was entered into the model, the coefficient of cognitive emotional regulation became smaller, down from -.342 to -.284, thereby clearly indicating a moderator relationship. Likewise, the interaction term (CESxWSS) is significant (β= .287, p< .01) indicating a postively moderated relationship. In other words, the effect of cognitive emotional regulation became smaller when there is work related support, which also helps to significantly reduce job stress (β= -.261, p< .01).

In contrast, when the work related support (NWSS) was entered into the model; the coefficient of cognitive emotional regulation became slightly greater, up from -.342 to -.371, thereby clearly indicating a moderator relationship as well. In other words, the effect of cognitive emotional regulation became slightly greater when there is non-work related support, which also helps to significantly reduce job stress (β= -.227, p< .01). The interaction term (CESxNWSS) is also significant (β= .243, p< .01) indicating a postively moderated relationship.

Collectively, the results show support for Hypotheses 2a and 2b, providing evidence to the moderating role of social support. Based on the results, it can be said that the moderating effect of work-related social support is greater than the moderating effect of non-work related social support. While not hypothesized, both work related and non-work related social systems have an independent main effect on stress. That is, both types of social support systems lead to lower levels of job stress as can be seen in Table 2.

4. Discussion and Conclusion

This study investigated the effect of cognitive emotion regulation on job stress. Furthermore, we also examined the moderating role of social support on the relationship between cognitive emotion regulation on job stress.

Cognitive emotion regulation (CER) directly and indirectly, through shaping work related and non-work related social supports, impacted individual's job stress. The results of this study are parallel to the literature findings (Greenhaus & Parasuraman, 1986; Thomas & Ganster, 1995; Garnefski, & Kraaij, 2006).

Our results indicate that there is an important relationship between emotion regulation and stress. Stress is a critical issue for both employees and managers in an organization. Lower levels of stress often result in higher performing and satisfied employees. This, in turn has a positive effect on organizations because it leads to a better work environment with better results. To controll stress in the workplace may be achieved in various ways. One method is that organizations provide such work conditions that will limit excessive stress. However, this may not be always the ideal situation as worklife may be full of stressors, despite the efforts by organizations to limit it. The ability to control and regulate emotions is a vital aspect of a productive work environment. Therefore, it is equally necessary for employees to have the capacity to regulate emotions in order to manage emotions and consequently stress. Organizations therefore have to pay attention during the recruitment stage to select employees who have the ability to manage and regulate their emotions among other things. Likewise, employee development programs can focus on enhancing such skills through workshops and training programs.

Another important aspect is the role of social support as these have a positive effect on reducing the stress of employees. Therefore, HRM functions in organizations must also focus on how to increase the levels of support both from work as well as from outside work. Providing mentors, among many others, is one example of an effective way to achieve this (Carlson & Perewwe, 1999). Organizations also need to think about policies and programs that would foster a positive work-life balance that will allow for better family support, for example.

This study has several contributions to the literature. First, only full-time employees from all level of the organizations were surveyed in this study. Second, the survey has been administered by the researchers to increase participation and also to increase the accuracy of the responses. Third, this study advances the cognitive emotion regulation literature, by examining the effects of cognitive emotion regulation on job stress. We have shown that both cognitive emotion regulation and social support has a positive effect on reducing stress. These findings have important implications for the literature as well as for practice.

There are also several limitations in this study that need to be highlighted in order to place the findings in the appropriate context. First, the sample was obtained from a single organization and therefore not demographically diverse. Of course, this also allowed us to control for factors that might differ from organization to organization. However, on the downside, it limits the generalization of the results to a larger context. Further, our study was based on a cross-sectional design. Thus, future research should focus on longitudinal research designs in order to minimize the common method variance. This will allow for better control of temporal effects as well as of relationships observed that are not being able to distinguished more clearly.

The findings of this study have shown that relationships do exist between cognitive emotion regulation and job stress. However, further research is needed to examine more closely the complexities of these relationships. Future research can extend this study's results by including constructs such as organizational commitment & citizenship behavior, job satisfaction and job performance in their research models. This will allow for a more comprehensive understanding among the variables mentioned and their relationship to cognitive emotional regulation and stress.

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The Interest in Science among Malaysian: A Comparative Study between Gender, Age Group and Ethnics

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Abstract

This paper reports a study which was conducted to know the interest in science among the Malaysian. Altogether 642 respondents from all over the country participated in the study. The respondents, male and female from different ethnics were randomly obtained. They were given booklets of questionnaire containing statements related to the issues of science. The statements were provided with responses in the form of Likert style scale ranging from 1. Strongly disagree, 2. Disagree, 3. Not sure, 4. Agree and 5. Strongly agree. The booklets were collected and the responses were analysed using the Statistical Package for the Social Sciences (SPSS) to obtain the means and percentages of the responses. The findings show that 68.3% of the respondents claimed that they have interest in science, although the interest in science is not strong, no difference of interest in science is found between male and female respondents as well as between the ethnics. However there is significant different of means between age groups.

Keywords: science, Malaysia, interest, comparative, gender, age, ethnics

1. The Role of Science and Technology in Development: Malaysia Perspective

The importance attached to science and technology has been reflected in several Malaysian government policies such as the Vision 2020, the 10th Malaysian Plan, The National Science and Technology Policy, The National Biotechnology Policy and the National Agriculture Policy (Bucchi & Trench, 2014). Various policies which have been made by the government have yet to bear fruit. The number of scientists and researchers in Malaysia is still small compared to those of the developed countries. In term of science and technology, Malaysia still lags behind the developed countries and even the New Industrial Economies (NIEs) as it was ranked 55 from the 178 in term of its performance (Mahadevan, 2007). It is well known fact that number of scientists and researchers is important factor which is crucial for achieving the status of developed nation. Therefore with the small number of scientists and researchers, the Vision 2020 which aimed at turning Malaysia into an industrial and developed nation (Sarji, 1993), is still far behind.

Science and technology play an important role in the development and progress of a nation. Science and technology is closely link to economic development of a country. Therefore many countries embarked on pursuing progress in science and technology after their independence from the colonial rulers. The Malaysian government, through the Ministry of Education introduced science to school pupil as early as year 1 at the primary education. The streaming of students to science and non-science stream begin at year 4 i.e. after the Lower Certificate of Education (LCE), in an effort to improve science and technology of the country, and then the Prime Minister of Malaysia switched the teaching instruction for science in all the government schools to English. However the step taken by the government was strongly opposed by some segment of the Malay intellectuals until finally the government decision was revoked. The issue is whether the students are interested in science or non-science subjects. A study which has been conducted in the United States found out that the students considered science profession as less creative, less people orientated compared to other career profession and difficult (Henriksen et al., 2014).

The findings of the study in the United States was affirmed by the previous study which discovered that science education in the developed countries failed to attract the youth to study science (Chorafas, 2012). Moreover, the survey across 40 countries and discovered that science is not popular in developed countries (Csermely et al., 2007). In the developing world, there is worrying lack of interest in science (Pinto & Couso, 2007) and in an effort to promote interest in science, certain government such as that of Singapore established the science centre which they emulated from the United States (Haren, 2010).

In Malaysia, initiative in the field of education is promoting science and technology at all levels of schooling. In early 2011, the government introduced a new curriculum including the basic knowledge on communication and information technology, a measure intended to make young people more interested in high-tech careers (Oxford Business Group, 2011). According to Hussain and Idris (2010) in the Malaysian contact, the Malaysian students at the primary level showed interest in science and they were positive about science learning but as they entered the secondary declined but not seriously.

2. Methodological and Statistical Analysis

The study was conducted throughout Malaysia on 642 respondents, males and females from the age of 19 to 55 years and randomly obtained. Every respondent was given a booklet containing questionnaire on the several issues of science including interest in science. The questionnaire were in the form of statements with given responses in the form of Likert style scale ranging from 1 (Strongly disagree), 2 (Disagree), 3 (Not sure), 4 (Agree), and 5 (Strongly agree). The respondents were given 30 minutes to respond to the questionnaire. After 30 minutes the booklets of questionnaire were collected and the data was analysed using the Statistical Package for the Social Sciences (SPSS) to obtain the descriptive statistic which include percentages and means. The means were also tested using the independent t-test and also one-way ANOVA.

Likert style scale was used in this study because it measures attitude of the respondents. Kothari (2011) listed five reasons why Likert scale is a good instrument of test. The five reasons are: First, it is relatively easy to construct. Second, it is more reliable instrument because respondents answer each statement included in the instrument. Third, each statement included in the Likert scale is given an empirical test for discriminating ability. Fourth, Likert scale can easily be used. Fifth, it takes less time to construct. The responses were analysed using the Statistical Package for the Social Sciences (SPSS), to find the percentages, the means, the correlation and the difference of means.

The first analysis was to obtain the mean response to the statement "I am interested in science". The result of the analysis is shown in Table 1.

Table 1. The mean response to the statement "I am interested in science"

	N	Minimum	Maximum	Mean	Std. Deviation
	642	1.00	5.00	3.7710	1.00493
Valid N	642				

Table 1 shows that the mean response is 3.7710. The mean lies between 3 (not sure) and 4 (agree). The next analysis is to obtain the percentage of the response. The mean is not strong indication that the respondents have interest in science. Table 2 shows the result of the analysis.

Table 2. The percentage of the response to statement "I am interested in science"

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	17	1.3	2.6	2.6
disagree	63	4.9	9.8	12.5
Not sure	123	9.5	19.2	31.6
Agree	286	22.2	44.5	76.2
Strongly agree	153	11.9	23.8	100.0

Table 2 shows that 2.6% of the respondent strongly disagree to the statement "I am interested in science", 9.8% disagree, 19.2% not sure, 44.5% agree and 23.8% strongly agree. In total 12.4% (combination of response 1 and 2) do not accept the statement and 68.3% (combination of response 4 and 5) accepted the statement and 19.2% are not sure. The percentages of the response are plotted to form the bar chart, as shown in Figure 1.
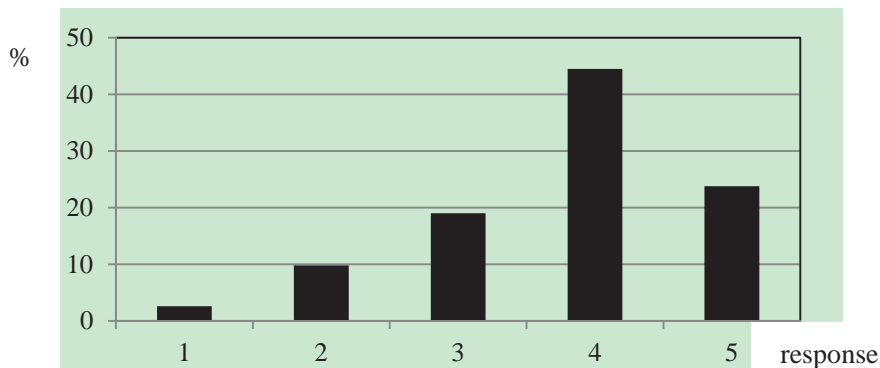
Figure 1. The bar chart of the percentage of the response of all the respondents

Figure 1 shows that the highest percentage of the response is the response no 4 which is 'Agree". The next analysis is to obtain the percentages of the responses based on the ethnic of the respondents. The result of the analysis is shown in Table 3.

Table 3. The percentages of the responses based on the ethnics

	Malay		Chinese		Indian		Native of Sabah		Native of Sarawak	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Strongly disagree	12	2.7	2	1.7	2	3.6	1	4.8	0	0
Disagree	34	7.8	18	14.9	10	17.9	1	4.8	0	0
Not sure	85	19.5	24	19.8	7	12.5	5	23.8	1	25.0
Agree	194	44.4	51	42.1	27	48.2	11	52.4	1	25.0
Strongly agree	112	25.6	26	21.5	10	17.9	3	14.3	2	50.0
	437	100	121	100	56	100	21	100	4	100

Table 3 shows the percentages of the responses based on the ethnics of the respondents. The number of respondents for the native of Sabah and the Native of Sarawak are small; hence these ethnics are left aside. The percentages of the Malay respondents who rejected the statement (combination of response 1 and 2) are 10.5%, the respondents who were neutral are 19.5% and those who accepted the statement (combination of response 4 and 5) are 80%. The percentage of the Chinese respondents who rejected the statement (combination of response 1 and 2) are 16.6%, those who were neutral is 19.8% and those who accepted the statement (combination of response 4 and 5) are 63.6%, the percentage of the Indian respondents who rejected the statement (combination of response 1 and 2) are 21.5%, those who were neutral is 12.5% and those who accepted the statement (combination of response 4 and 5) are 66.1%. The percentages of the responses of the three ethnics are plotted into line graph as shown in Figure 2.
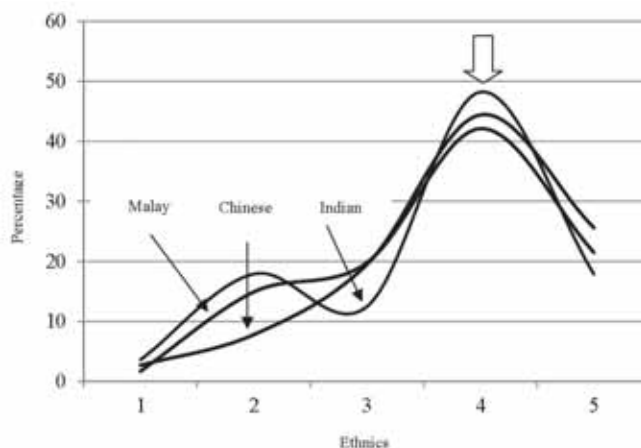

Figure 2. The line graph of percentages of the responses of Malay, Chinese and Indian ethnics

Figure 2 shows that the most popular response is concentrated at the response number 4 (agree) for all the three main ethnics i.e. the Malays, the Chinese and the Indians. It seems that there is not much difference between the three main ethnics in term of their interest in science. The next analysis is to obtain the mean response based on the ethnics of the respondents. The next analysis is to obtain the responses according to the ethnic of the respondents. The mean responses of the respondents based on their ethnic are shown in Table 4.

Table 4. The means response according to the ethnic of the respondent

Ethnic	Mean	N	Std. Deviation
Malay	3.8219	438	.98978
Chinese	3.6694	121	1.02785
Indian	3.5893	56	1.09173
Native of Sabah	3.6667	21	.96609
Native of Sarawak	4.2500	4	.95743

Table 4 shows that the means responses of the respondents based on their ethnic are very close to each other. The mean response for the Malay respondents is 3.8219, the mean response of the Chinese respondents is 3.6694, the mean response of the Indian respondents is 3.5893, the mean response of the Sabah is 3.6667 and the mean response of the Native of Sarawak is 4.2500. The mean difference are tested with one-way ANOVA to see if there is significant different between the mean. The result of the test is shown in Table 5.

Table 5. One-way ANOVA test for the means response of the respondents according to ethnic

	Sum of Squares	df	Mean Square	f	Sig.
Between Groups	5.484	5	1.097	1.087	.366
Within Groups	641.857	636	1.009		

Table 5 shows that the p value is 0.366 which is bigger than the critical value of 0.05, indicating that the difference of mean between the responses of the respondents according to their ethnics is not significant. This means that there is no difference of interest in science between the main ethnics group in Malaysia. The next analysis is to obtain the percentages of the responses based on the gender of the respondents. The result of the analysis is shown in Table 6.

Table 6. The percentage of responses based on the gender of the respondents

	Male		Female	
	Freq	%	Freq	%
Strongly disagree	9	3.1	8	2.3
Disagree	24	8.2	39	11.2
Not sure	68	23.2	54	15.5
Agree	124	42.3	16	46.6
Strongly agree	68	23.2	85	24.4
	293	100	348	100

Table 6 shows that 11.3% (combination of response 1 and 2) of the male respondents rejected the statement, 23.2% neutral and 65.5% (combination of response 4 and 5) accepted the statement. The table also shows that 23.5% (combination of response 4 and 5) of the female respondents rejected the statement, 15.5% neutral and 71.0% (combination of response 4 and 5) accepted the statement. It seems that more female respondents accepted the statement 'I am interested in science'. The next analysis is to obtain the mean response of the respondents based on the gender and the result of the analysis is shown in Table 7.

Table 7. The mean responses of the respondents based on the gender

Gender	Mean	N	Std. Deviation
Male	3.7415	294	1.00231
Female	3.7960	348	1.00791

Table 7 shows that the mean response of the male respondent is 3.7415 while the mean response for the female respondents is 3.7960. there is very little difference of mean between the male responses and the female responses with female interest is slightly more than the male. The mean response is tested to see if the difference of mean is significant or not. The result of the test is sown in Table 8.

Table 8. The t-test between the genders

	Levene's Test for Equality of Variances				
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	.201	.654	-.684	640	.494
Equal variances not assumed			-.684	623.331	.494

Table 8 shows that the p value is 0.494 which is smaller than the critical value of 0.05. This implies that the difference of mean of the respondent base on the gender is not significant. The next analysis is to obtain the percentage of the response based on the age of the respondents. The result of the analysis is shown in Table 9.

Table 9. Percentages of responses based on the age groups of the respondents

	20-30		31-55		> 55	
Strong disagree	11	2.4	5	3.6	1	3.6
Disagree	34	7.3	19	13.6	8	28.6
Not sure	83	17.7	30	21.4	8	28.6
Agree	213	45.5	62	44.3	8	28.6
Strongly agree	126	26.9	24	17.1	3	10.7
	468	100	140	100	28	100

Table 9 shows that the percentages of responses based on the age groups. The percentage of the respondents who rejected the statement (combination of response 1 and 2) for the age group 20-30 is 9.7%, those who were neutral is 17.7% and those who accepted the statements is 72.4%, for the age group between 31-55, the percentage of the respondents who rejected the statement is 17.2% (combination of response 1 and 2), those who were neutral is 21.4% and those who accepted the statement is 61.4% (combination of response 4 and 5), and the percentages of the responses of the respondents for the age group more than 55 years who rejected the statement is 32.2%, neutral is 28.6% and those who accepted it is 39.3%(combination of response 4 and 5). The percentages of the responses based on the age groups are shown in Figure 3.
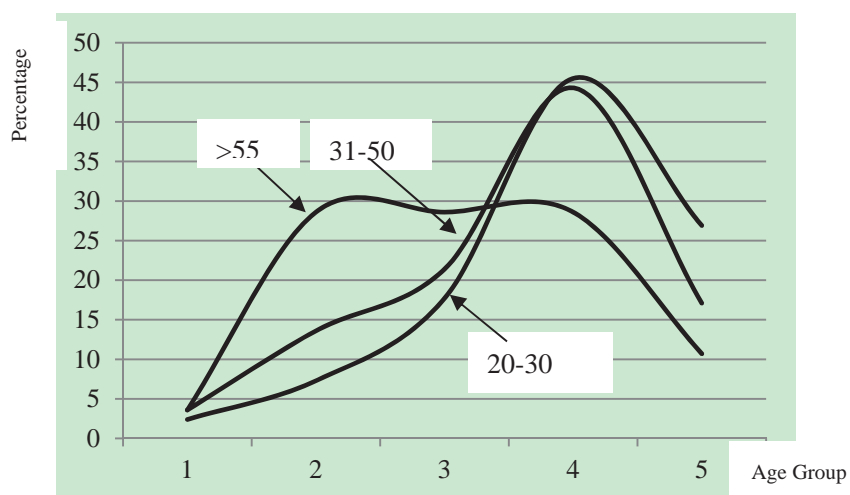

Figure 3. The line graph of the percentages of the responses based on the age groups of respondents

Figure 3 shows the line graph of the percentages of the responses based on the age group of the respondents. The line for the age group 20-30 seems to be similar but the line for the age group of more than 55 years is different from the rests.

The next analysis is to obtain the mean according to the age group. The mean response according to the age group is shown in Table 10.

Table 10. The mean response according to the age group

Age groups	Mean	N	Std. Deviation
20-30	3.8739	468	.96797
31-55	3.5786	140	1.03928
> 55	3.1429	28	1.07890
Total	3.7767	636	1.00416

Table 10 shows the mean response according to the age group. The mean response for the age group between 20 to 30 years old is 3.8739, for the age group between 31 to 55 years old is 3.5786 and the mean response for the age group above 55 years is 3.1429. Although the mean for the age group which is 3.7767, which lies between 3 (not sure) and 4 (agree) is not strong acceptance to the statement "I am interested in science", nevertheless the means seem to show that the interest in science decreases with the age as shown in Figure 4.
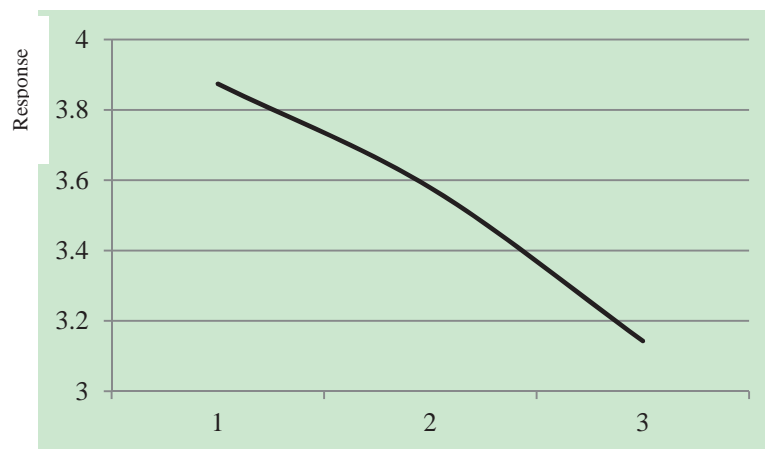

Figure 4. The line graph of means based on the respondents age groups.

Figure 4 shows that the interest for science decreases with age. The next analysis is to see whether the difference of mean between the different age groups is significant or not by using one-way ANOVA. The result of the test is shown in Table 11.

Table 11. The one-way ANOVA test between the means of the respondents

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	21.169	2	10.585	10.822	.000
Within Groups	619.126	633	.978		
Total	640.296	635			

Table 11 shows that the p value is 0.000 and the value is smaller than the critical value of 0.05. This shows that the mean difference between the respondents of different age group is significant.

3. Result and Discussion

There results of the study show that the respondents accepted the statement "I am interested in science". The mean response is 3.7710 (see Table 1). The mean lies between response 3 and response 4. The value 3.7710 is not strong indicator that they are interested in science. The mean of the response is reflected by the percentages of the responses which show 44.5% of the respondents agree and 23.8% strongly agree, and hence cumulatively the percentage of acceptance is 68.3% (see Table 3). Generally, the Malaysian public shows interest in science but the interest is not strong enough. The analysis which was made on the basis of the ethnics of the respondent also shows that there is no significant different of the interest in science among the different ethnic groups. Analysis of mean base on the ethnic of the respondents shows that there are differences of means of the response between the respondents. However the difference of mean is not significant, indicating that there are no differences to interest in science between the ethnic groups. In addition, in Malaysia, all students are given equal

opportunity to pursue education in various fields including science and technology. This is a very important factor which leads to similar interest in science between different ethnic groups (Wan, 2008).

The analysis for the mean responses according to the age group indicates that the interest in science declines with age (see Figure 3). The decline of interest in science with age has also been confirmed with other studies on the related issue (Lederman & Abell, 2014).

Analysis based on the gender of the respondents show that there are no difference on the interest of the respondents to science (see Table 3 and Table 4). This indicates that in the Malaysian contact, there is no significant difference between the male and the female in the interest in science. Moreover, in Malaysia, women education is very advanced in almost all the higher institution of education, the female students are more dominant the male students. From year 1970 to year 2000, female students account half of the total student's intake for primary and secondary level (Arnett, 2007).

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Religiosity and Internal Developmental Assets amongst Malay Adolescents in Malaysia

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Abstract

This study aimed to examine the relationship between religiosity and internal developmental assets amongst Malay adolescents in Malaysia. A total of 737 school-going Malay adolescents were recruited by using multistage cluster sampling method from four states (Selangor, Kedah, Kelantan and Johor) of Peninsular Malaysia. The results of the study indicated that Malay adolescents have good Islamic knowledge and practices, and in general they have good internal developmental assets. Both Islamic worldview (knowledge) and personality (practices) were found to have positive significant relationships with overall internal developmental assets and its specific domains. Precisely, Islamic personality denoted to be the strongest predictor in determining Malay adolescents' internal developmental assets. Religious-based intervention should be emphasized to enhance adolescents' internal developmental assets.

1. Introduction

During adolescence, religiosity plays a vital role in contributing to developmental outcomes. Religiosity development is a contextual process which influences adolescents through involvement of peer, family members and also religious organization (French, Purwono, & Triwahyuni, 2011; Petts, 2009; Regnerus, & Smith, 2004; Wilcox, Chaves, & Franz, 2004). Studies in Western countries indicated that religious institutions, such as church provide appropriate parenting skills through cultivation of belief and religious practices; family can encourage religious participation and socialization among adolescents; while peer might affect religious practices and attitudes among adolescents (Petts, 2009; Regnerus et al., 2004; Schwartz et al., 2006; Wilcox et al., 2004). Religious life that occurs within adolescents' social circle may have positive impact on their developmental outcomes (Ortega & Krauss, 2013).

Religiosity assumed as a positive trait may help adolescents reach a level of transcendence in which one is able to think and show concern for others and this ability is indispensable for one to advance in larger society (Lerner, 2004). Empirical studies in social psychology reported that religiosity contributed to positive developmental outcomes in aspects of cognition, emotion and behaviour among adolescents (Argyle, 2002; Ortega & Krauss, 2013). Religiosity can be potential forces that affect human nature, motivation, personality development, the self, the unconscious, psychological adjustment and the society (Smither & Khorsandi, 2009). Adolescence is a developmental stage where adolescents explore the larger social world and will be exposed to risk factors (Nebbit, 2012). In order to achieve a healthy adulthood, adolescents need to overcome obstacles and negative life events with their ability and capability along the developmental transition. For instance, adolescents who are active in social and school life might need to solve peer relationship problem or overcome academic stress. Previous studies reported that religiosity can foster prosocial behavior and moral identity; in turn promote

positive development outcomes among adolescents (Hardy & Carlo, 2005; Hardy & Walker, 2012; Walker & Reimer, 2008). Religiosity contributed to positive development outcomes that include academic achievement, resilience, restrains from anxiety and perceived social support (Milot & Ludden, 2009; Pardini et al., 2000). In addition, studies in Western and Middle East countries provided evidence that religious adolescents tend to experience greater levels of happiness, life satisfaction, mental and physical health, psychological well-being and psychosocial health (Abdel-Khalek, 2009; Ball, Armstead, & Austin, 2003; Yonker, Schnabelrauch, & DeHaan, 2012).

During the development process, adolescents need to possess some characteristics which can assist them to develop healthy development. Developmental assets are characteristics that may help adolescents to be healthy, responsible, accountable, caring, and capable of choosing and making decision (Nor Ba'yah et al., 2012). Developmental assets provide adolescents the skills and values they need to achieve aims applauded by the mainstream society (Search Institute, 2008). An increase in developmental assets may trigger thriving behavior and reduced risky behavior engagement among adolescents (Search Institute, 2004). Internal developmental assets represents the characteristics within individuals which included commitment to learning, positive values, social competency and positive identity; and these characteristics have been associated with better thriving behavior, responsibilities, healthy behavior, resisting negative peer pressure, optimism and self-esteem (Search Institute, 2005). With internal assets, adolescents can motivate themselves to obtain positive development outcomes. Adolescents who possess internal developmental assets are able to thrive and contribute to society (Learner, 2004). Occupying these developmental assets, adolescents will be empowered and encouraged to promote healthy development along the adolescence period.

Religiosity as positive forces might be one of the predictor for internal developmental assets. Cultivation of internal developmental assets appears to be important in order to nurture a group of healthy adolescents. Through integration of religion-based belief, values, and morals in adolescents' worldview and identity (Annalakshmi & Abeer, 2011; King, 2003), adolescents can foster better internal assets. Prior studies indicated that religiosity is positively related to adolescents' internal developmental outcomes, such as, social competence, self-esteem and adjustment (Sallquist, Eisenberg, French, Purwono, & Suryanti, 2010). Religiosity development that promotes internal assets may provide guidelines for adolescents to develop personal growth. Adolescents who hold positive view and religious belief may be encouraged to behave in certain way, thus they might be socially compliance. Prior study found that religiosity that contributed to self-esteem was positively associated with adjustment (French, Eisenberg, Vaughan, Purwono, & Suryanti, 2008). Adolescents who perceived social support from religious participation may be less likely to experience loneliness and consequently enhance their sense of belonging to society. Religiousness which promotes the concept of prosocial and empathy (Furrow, King, & White, 2004) may assist adolescents to succeed in psychosocial development. Prior studies found that religion provides social identity and thus enhances well-being development (Greenfield & Marks, 2007). Therefore, religiosity may influence internal assets which promote healthy development among adolescents. In addition, demographic factors such as gender had also been shown to relate to adolescent's developmental assets. In general, females tend to have more developmental assets than males (Benson, Scales, Leffert, & Roehlkepartain, 1999).

Past research argues that religion is one of the contributing factors in adolescents' developmental outcomes, such as internal developmental assets. However, similar studies among Malay adolescents in Malaysia are scarce. Therefore, the current study aimed to determine the relationship between religiosity and internal developmental assets among Malay adolescents. In addition, this study also examined gender difference in levels of religiosity and internal developmental assets. This study addressed to what extent the nature of relationships between religiosity and internal developmental assets established in other cultures is generalizable to Malay adolescents in Malaysia.

2. Research Methodology

2.1 Sample and Sampling Technique

A total of 737 secondary school adolescents, identified from four states (Selangor, Kedah, Kelantan, and Johor) of Peninsular Malaysia participated in this study. This study employed multistage cluster sampling method with Probability Proportional to Size (PPS) sampling technique since PPS provides equal chance for everyone in the population to be selected as participant in the study. The participants were male (41.9%) and female (58.1%) adolescents aged between 13 to 17 years old (Mean= 14.87) from 25 urban (64%) and rural (36%) secondary schools. Data were collected by using self-administered questionnaire.

2.2 Data Collection Procedure

Data were collected by trained enumerators and the questionnaires were administered in the classrooms setting. Respondents were requested to fill in the consent form and informed that their information will be confidential. Permission to conduct the study was obtained from the Ministry of Education, Malaysia; Department of Education from each state, and headmaster of each selected schools. The questionnaires were administered in Malay Language. The instruments which are originally in English language were translated using back-to-back translation. Ethical clearance was approved by the Ethic Committee for Research involving Human Subjects, University Putra Malaysia.

2.3 Measures

Internal Developmental Assets. Adolescent internal developmental asset was assessed using Developmental Assets Profile (DAP) (Search Institute, 2005). This scale has two sub-domains: External Assets and Internal Assets. DAP can also be categorized into five contexts which are personal context, social context, family context, school context and community context. Items in the scale were responded with a four points scale ranging from 0= Not at all or rarely to 3= Extremely or almost always. The Cronbach alpha for overall developmental assets (.93), external assets (.88), and internal assets (.90) indicated that DAP has high reliability. Higher score on the DAP showed the higher presence of the both internal and external assets. Individual with higher assets is often described as having high resiliency, high thriving behavior, and low tendency to engage in risk-taking behavior (Search Institute, 2005).

Religiosity. Respondent's religiosity was assessed using Muslim Religiosity Personality Inventory (MRPI) (Krauss et al., 2006). MRPI was developed to reflect the tawhidic (divine unity) worldview of the Islamic faith and the manifestation of one's worldview in the righteous works. MRPI has two domains which are Islamic worldview and Religiosity personality. Islamic worldview assesses individuals' Islamic creed (*aqidah*) as laid down by *Quran* and *Sunnah (way).* Islamic worldview has two sub-dimensions that are Worldly and Spiritual. Worldly measures the level of belief or understanding of the congruence of Islam with worldly life (e.g., All Islamic laws can be modified to fulfill contemporary needs). The spiritual assesses individuals' belief or understanding of God's relations with creation (e.g.; Worldly life cannot be separated from the afterlife) Religious personality assesses respondent's personal manifestation (behaviour, motivation and attitude) of the Islamic teachings and commands and it has two sub-dimensions which are rituals and mu'amalat (prosocial behaviors). Ritual is related to the formal worship that reflects one's direct relationship with God (e.g., I encourage my family members to follow the teachings (sunnah) of Rasulullah). Mu'amalat or prosocial behaviors refers to the religiously-guided behaviour of an individual towards family, fellow human beings and other God's creation (e.g., I do not expose the shortcomings of others). The present study used revised MRPI Scales that contains 47 items. The response for items in the scale is based on the six point scale from 1= strongly disagree to 6= strongly agree. Total score was computed with high score displays high individual religiosity (Krauss, 2011). Cronbach alpha for both MRPI sub-domains are .66 (Islamic Worldview) and .92 (Religious Personality), while the cronbach alpha for the four sub-scales are: Worldly= .83; Spiritual= .67; Ritual= .90 and Mu'amalat = .83.

2.4 Data Analyses

Data of the study were analyzed by using Statistical Package for Social Science (SPSS). Descriptive statistics, t-test, Pearson correlation, and multiple regression analysis were conducted to address the objectives of the study.

3. Results

3.1 Descriptive Analysis

Table 1 presents the distribution of adolescents' score on religiosity variables and adolescents' internal developmental assets. The category for religiosity and developmental assets were developed based on a cut-off point suggested by the authors. More than half of the adolescents scored moderate to high on all the religiosity variables (religiosity worldview, worldly, spiritual, religiosity personality, ritual and mu'amalat). In term of internal developmental assets, adolescent obtained good and fair scores (83.6%) for total internal developmental assets. More specifically, above 75% of adolescents scored good and fair in all the sub-scales (commitment to learning, positive values, social competency and positive identity) for internal assets.

3.2 Bivariate Analysis

In relation to total internal developmental assets, significant relationships were found between religiosity worldview (*r*= .204, *p*< .000), worldly Islamic worldview (*r*= .125, *p*< .000), spiritual Islamic worldview

(r= .216, p< .000), religiosity personality (r= .638, p< .000), ritual religious personality (r= .533, p< .000) and mu'amalat religious personality (r= .617, p< .000) with internal developmental assets (Table 2). Results showed that adolescents who have positive worldly and spiritual Islamic worldview and good ritual and mu'amalat religious personality had better total internal developmental assets.

In term of specific dimension of internal developmental assets, religiosity and its sub-scales had significant positive relationship with all the sub-dimensions of adolescents' internal developmental assets (commitment to learning, positive values, social competency and positive identity). The findings of the study also revealed that adolescents who internalize and practice Islamic values tend to have high commitment to learning, positive values, good social competency and positive identity.

Table 1. Distribution of respondents on independent and dependent variables (N=737)

Variable	n (%)	Mean	S.D	Min.	Max.
Religiosity					
Religiosity worldview		4.50	0.48	2.99	5.70
Low	41 (5.6)				
Medium	414 (56.2)				
High	282 (38.3)				
Worldview-Worldly		4.26	0.59	2.23	5.54
Low	63 (8.5)				
Medium	509 (69.1)				
High	165 (22.4)				
Worldview-Spiritual		4.75	0.68	2.14	6
Low	56 (7.6)				
Medium	307 (41.7)				
High	374 (50.7)				
Religiosity Personality		4.40	0.71	2.30	6
Low	26 (3.5)				
Medium	213 (28.9)				
High	498 (67.6)				
Personality-Ritual		4.18	0.83	2	6
Low	112 (15.2)				
Medium	329 (44.6)				
High	296 (40.2)				
Personality-Muamalat		4.62	0.74	2.07	6
Low	7 (0.9)				
Medium	139 (18.9)				
High	591 (80.2)				
Internal Assets		19.54	3.81	8.46	29.27
Low	85 (11.5)				
Good	396 (53.7)				
Fair	220 (29.9)				
Excellent	36 (4.9)				
Internal-Commitment to learning		19.31	4.65	5.71	30
Low	132 (17.9)				
Good	325 (44.1)				
Fair	227 (30.8)				
Excellent	53 (7.2)				
Internal- Positive values		19.41	4.18	6.36	30
Low	108 (14.7)				
Good	380 (51.6)				
Fair	203 (27.5)				
Excellent	46 (6.2)				
Internal – Social Competency		19.75	4.45	7.50	30
Low	96 (13.0)				
Good	322 (43.7)				
Fair	245 (33.2)				
Excellent	74 (10.0)				
Internal – Positive identity		19.69	4.70	6.67	30
Low	93 (12.6)				
Good	340 (46.1)				
Fair	231 (31.3)				
Excellent	73 (9.9)				

Table 2. Correlation between religiosity and internal developmental assets (N=737)

Variable	Pearson correlation (r)				
	Internal assets	Commitment to learning	Positive values	Social competency	Positive identity
Religiosity					
Worldview	.204***	.142***	.202***	.186***	.167***
Worldview-Worldly	.125***	.075*	.120**	.122**	.110**
Worldview-Spiritual	.216**	.169***	.218***	.184***	.165***
Personality	.638***	.578***	.617***	.526***	.451***
Personality-Ritual	.533***	.530***	.519***	.397***	.366***
Personality-Muamalat	.617***	.510***	.593***	.552***	.446***

Note. *p < .05; **p < .01; ***p < .001

Table 3 presents respondents' scores for all the main variables examined by gender. For internal developmental assets, female adolescents scored higher in both commitment to learning (t= -2.972, p< .01) and social competency (t= -2.085, p< .05) as compared to male adolescents. Precisely, female adolescents showed better commitment in learning (mean= 1.97) and more competent in social development (mean= 2.00).

The *t*-test results indicated the significant difference between male and female adolescents in their worldly Islamic worldview (t= -3.003, p< .01). Specifically, female (mean= 4.32) adolescents tend to have better worldly Islamic worldview as compared to male (mean= 4.18) adolescents. Results of the study also denoted that female adolescents (mean= 4.55) scored significantly higher than male (mean= 4.44) adolescents in religions worldview (t= -2.889, p< .01). However, the other variables did not show significant differences. In others, male adolescents showed slightly better internal developmental assets, as well as stronger ritual religious personality than female adolescents. In term of spiritual Islamic worldview and mu'amalat religious personality, female presented stronger or better religiosity as compared to male adolescents.

Table 3. Differences in religiosity and internal developmental assets by gender (N=737)

Variable	Male	Female	t	p
	Mean			
Developmental Assets				
Internal assets	19.35	19.68	-1.145	.253
Commitment to learning	1.87	1.97	-2.972**	.003
Positive values	1.93	1.94	-.577	.564
Sosial Competency	1.93	2.00	-2.085*	.037
Positive identity	2.00	1.94	1.701	.089
Religiosity				
Worldview	4.44	4.55	-2.889**	.004
Worldview-Worldly	4.18	4.32	-3.003**	.003
Worldview-Spiritual	4.70	4.78	-1.519	.129
Personality	4.39	4.41	-.412	.680
Personality-Ritual	4.21	4.16	.909	.364
Personality-Mu'amalat	4.56	4.66	-1.808	.071

Note. *p < .05; **p < .01

3.3 Multivariate Analysis

The characteristics of adolescents (sex, age and residential area) and subdomains of religiosity were regressed against internal developmental assets. Results in Table 4 showed that religious personality (Beta= .620, *p*< .000) appears to be the strongest and the only significant predictor in explaining internal developmental assets among adolescents. Positive regression weights indicated that adolescents with higher level of religious personality reported to have greater internal developmental assets. The adjusted R^2 results indicated that personal background and religiosity subdomains elucidated 40.4% of variance in explaining adolescents' internal developmental assets.

Table 4. Regression analyses for internal developmental assets (N=737)

Variable	Internal Assets	
	Unstandardized Coefficient B	Standardized Coefficient β
Personal Background		
Sex (0= Male, 1=Female)	.221	.028
Age	.107	-.043
Residential Area (0=urban, 1=rural)	.235	.022
Religiosity		
Worldview	.240	.040
Personality	.161	.620***

Adjusted R²= .404
$F_{(5,731)}$ = 102.09*

Note. ***$p < .001$

4. Discussion

This study aimed to determine the relationship between religiosity and internal developmental assets among Malay adolescents in Malaysia. Generally, Malay adolescents scored high in all the religiosity variables which are both spiritual and worldly aspects of Islamic worldview as well as Muslim personality dimension of ritual and mu'amalat. They have good level of overall internal developmental assets and its subdomains (commitment to learning, positive values, social competency and positive identity).

The results of the study showed that all the religiosity variables are significantly related to adolescents' internal assets. Adolescents who have high spiritual aspect of Islamic worldview, good personal striving related to Islamic ritual worship and good relations with all other creations tend to have better internal assets. Both spiritual and practical aspects of religiosity could foster the internal strengths of adolescents. Specifically, adolescents who hold positive view and belief are able to be more committed in learning, have positive values and identity, and are socially competent. All these internal developmental assets can serve as valuable assets that assist adolescents in developing better life styles and cope with negative event and influences (Furrow et al., 2004; Greenfield & Marks, 2007). The results of the study are further supported by previous studies (Hardy& Walker, 2012; Walker & Reimer, 2008; Milot & Ludden, 2009; Yonker et al., 2012; Abdel-Khalek, 2009; Sallquist et al., 2010) which denoted that religiosity can promote better academic achievement, self-control, prosocial behaviour, life satisfaction, greater level of happiness and moral identity which continue to enhance well-being among adolescents. By highlighting that religion is crucial in promoting positive developmental assets amongst adolescents, intervention initiatives may consider and strengthen religion-based element.

A part of that, female adolescents scored significantly higher in both total and worldly aspect of Islamic worldview as compared to male adolescents. Similar findings also revealed by Furrow et al. (2004) who stated that female adolescents have more positive attitude toward religion especially in an earlier age. Results also denoted no significant gender differences between male and female adolescents in internal developmental assets. Precisely, female adolescents were found to have better commitment to learning and are socially competent as compared to male adolescents in the sub-dimension of internal developmental assets.

Regression analysis highlighted that religiosity personality was the only significant predictor of Malay adolescents' internal developmental assets. According to Hamzah et al. (2007), religiosity personality signifies the action or behaviour element of Islamic religiosity. This means that Malay adolescents who practice Islamic value have better internal assets. High score in the religiosity personality is an indication of personality that is guided by Islamic religious teachings. The results of the study on the relationship between Muslim religiosity and internal developmental assets is consistent with past findings in Western context which noted that participation in religion (Christian) activities contributes to adolescents' developmental assets (Roehlkepartain, 2003). Many studies (Atkiss, Moyer, Desai, & Roland, 2011; Cotton, Zebracki, Rosenthal, Tsevat, & Drotar, 2006) have addressed that in general, religion predicts adolescents' internal assets which in turn promotes positive development. Religious individuals behave in socially appropriate ways which in turn promote social competence among them (Sallquist et al., 2010).

In conclusion, this study evidenced the moderate to high level of Islamic religious belief and practices amongst Malay adolescents in Malaysia as measured by Muslim Religiosity Personality Inventory (MRPI) which was developed based on *Quran* and *Sunnah* - two primary sources of the Islamic law, belief and practice within

(Sunni) Islam. Overall, Malay adolescents reported to have good internal developmental assets. In addition, female adolescents have higher commitment to learning, social competency and high Islamic worldview as compared to male adolescents. Furthermore, evident also highlighted the impact of Islamic worldview and personality on the internal developmental assets among Malay adolescents. Islamic religiosity personality contributed to adolescents' overall internal developmental assets. The results of the study provide better understanding regarding adolescents' religious belief and practices as well as its links to internal developmental assets amongst Malay adolescents in Malaysia.

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Consumer Legal Literacy, Values and Consumerism Practices among Members of Consumer Association in Malaysia

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Abstract

Self-protection is an important component that has been outlined under the Malaysian National Consumer Policy (NCP). It is essential to achieve government's vision through promoting the community of consumers who are constantly aware and knowledgeable of their rights and responsibilities. Respondents are comprised of members of consumer association (GPS) found in Institute of Higher Education. Therefore, this study aims to determine the level of consumer legal literacy, values of the consumers and their consumerism practices in the marketplace. A total of 400 respondents among the members of GPS have been selected through systematic sampling technique and the data were collected using a survey. It was found that the respondents were more aware of their rights rather than their responsibilities. Respondents also have poor in knowledge regarding logos and consumer legal literacy. While the value that possessed by the respondents is focused on the environmental values and consumerism practices are more likely to seek information. Based on profiling of the respondents, it can be concluded that the characteristics of respondents who should have given emphasis to are the member of GPS, aged between 18-20 years, studying at public universities, pursuing in Arts, member with less than one year of membership and only being ordinary members in the association. Accordingly, the results of this study can be beneficial to the government, consumer organizations and universities in the development of policy, conducting educational activities, improves the current learning modules so that consumerism programs in the future could be upgraded.

Keywords: consumer legal literacy, consumer value, consumerism practice, self-protection

1. Introduction

In order to increase well-being, consumers need to know their rights as well as their responsibilities in the market or being engaged in 'self-protection' as stated in the Malaysian National Consumer Association (NNA) (Jariah, Sharifah, & Laily, 2013). Through the rationalization of National Consumer Policy (NCP), this policy is required to achieve the vision of the Malaysian government in promoting both the consumers and the suppliers who are concern and knowledgeable about their rights and responsibilities. Accordingly, *Gerakan Pengguna Siswa* (GPS) is established to form a group of consumers among university students who are smart, rational and responsible in the market. GPS is an initiative of the Malaysian government through the Ministry of Domestic Trade, Cooperatives and Consumerism (MDTCC) to produce citizens who are knowledgeable so that they can be the driving force in consumer education. Up until 2014, the number of GPS members has reached 25,000 people, although it has been only established in November 2011. With this amount of members, it is hope that the programs being organized are in line with the main goal of GPS to improve the consumerism knowledge gradually. Moreover, the members of GPS hopefully not only become a club member but also involved as a volunteer in any consumer association or voluntary organization after their graduation. This involvement is consumer's responsibility in engaging with consumer associations that would be implemented and become a role model to society in general.

Furthermore, being actively involved in GPS can improve consumerism especially among university students as it is very important when they have graduated later. According to the statistics from the Department of Insolvency (2012), the number of bankruptcy has increased by 40 percent among the youth after graduation every five years and it is expected this number will reach as much as 100, 000 by the year 2020. This fact is very alarming and may occur because this people are less knowledgeable about consumer rights, information regarding the goods and services and less aware of the responsibility as a consumer to themselves, society and the environment.

Therefore, even if the GPS is newly operated, this study attempts to explore the level of consumer legal literacy and to identify their consumerism practices. Consequently, appropriate programs can be implemented in the future to make this group as an example to other consumers. Thus, the objectives of this study are to identify the level of consumer legal literacy, consumer values and consumerism practices with the aim to do the profile of GPS members.

2. Related Previous Studies

Consumerism practice known as any activity undertaken by people to protect their rights and interests as a consumer (Irfahani, 2009). Yet, consumerism practice in this study refers to the frequency of consumer behavior in the execution of the five responsibilities as consumer. Five responsibilities are the awareness to criticize, involvement and action, social responsibility, environmental and united as outlined by the Consumer International (CI). Responsibility of the consumer is the main focus in nurturing consumerism practice. Consumer responsibilities refer to consumer involvement in engaging consumerism activities, community, nation and environment. Based on Huda and Zulfiqar (2011), countries that have relatively stable economies such as Japan, India and Turkey make a progress in consumerism. Now, consumerism in Malaysia has grown throughout the country, but they are not the same level as in developed countries and the developing world.

For Asian countries, consumerism in India is at a stronger level than the developing countries like Pakistan. They are very concerned with customer satisfaction and consumer safety rights (Huda et al., 2011). More than 600 non-government organizations in India are actively protecting consumer interest and educating the consumer in consumerism, providing education to women in consumerism, conducting seminars and published reading materials. However, in Pakistan, they also have a lot of active consumer organizations and strong law in protecting consumer interests. There is a court in Pakistan that has been actively involved in helping the consumers to make a claim for compensation against the dealers. As results, improving in quality issues, connecting industry management code and enhancing justice for consumer (Silbey, 1981). Similarly in Turkey, a few organizations have been proven in protecting the consumer, including non-government agencies and courts. While in Japan, there are two types of consumer organizations; the organization that control product quality and advocacy group act as an advisor and protector for consumer rights. Japan is one of the Asian countries involved in the consumer organization at the international level to fight for consumer rights, consumer policy globally and policies related to the nation economy. These developments have shown awareness of consumerism in Asian countries is getting better and being actively involved.

In Malaysia, based on the study of the consumerism conducted by Jariah, Fazli and Sharifah (2013) among the rural consumers found that more than 70 percent of respondents regularly buy goods and inspect items before paying. This reflects that the consumer has the awareness to criticize quality of goods in the market. Awareness to criticize refers to the responsibility to be more alert and argue about the price and quality of goods and services supplied. Similarly to a study conducted by Jariah et al. (2013b), which also is related to the consumerism practices. Generally, the respondents have awareness to criticize than concerned about the price. The researchers suggested that consumerism practices should be seen in detail through five responsibilities as being laid down by CI which are awareness to criticize, involvement and action, social responsibility, environmental and being united.

There are two theories utilized in this study which are Empowerment Theory and Social Cognitive Theory to describe the consumerism practices. Consumerism practices in this study means to implement consumer actions in five responsibilities as a consumer based on consumer legal literacy and consumer values that they have possessed. According to the founder of Empowerment Theory, Zimmerman (1990), defines Empowerment Theory as a combination of process and outcome of the empowerment. He explained that process is referring to activity such as education programs, actions or specific authorization structure to endeavor, when the result is a stage and effectiveness empowerment power given to the individual or the community. Empowerments as a process rather than a state transition to a state unempower to empower over one's life (Zimmerman and Perkins, 1995). This theory has been used in the Basic Consumer Strategy European Unity (EU) from 2007 to 2013

which comprised of several components which include knowledge, skills and involvement of consumer in the market (Nardo, Loi, Rosati, & Manca, 2011). So that, two components from this theory are formed in this study which are consumer legal literacy and consumerism practices.

Consumer legal literacy refers to knowledge of GPS members towards the eight consumer rights, five consumer responsibilities, knowledge on consumer definition, legal framework of the law on goods and services, compensation mechanism and the logos as outlined by Malaysian law. Consumer knowledge is very important in any study of consumer practices (Albam & Hutchinson, 1987). Consumers play an important role in the market because they need to communicate or express their dissatisfaction or complaints before legal action are taken (Donoghue & De Klerk, 2009). According to Jariah et al. (2013b) the low levels of consumer knowledge in consumer rights makes it difficult for them to act as a savvy consumer. Those rights are the right to receive adequate and accurate information, the right to voice out, the right to get basic needs, the right to be protected from harmful products, the right to live and the right to work in healthy and safe environment. Based on their findings, almost half of the respondents responded all eight consumer rights correctly, but there were respondents responded to other statements that are not consumer rights. This indicates that the level of the consumer knowledge is still at low level.

Therefore, the consumer is expected to have knowledge regarding their rights, for example, complaints procedure and appropriate action in accordance with the legislations. However, there is certain time the law is not the best way to protect consumer rights, but depends on the consumers themselves (Sakina, Suzanna, & Azimon, 2012). Thus, consumers must actively participate in supporting the enforcing process of their rights against exploitation market. This is because the low level of consumerism cause difficulties in self-defense against the cunning merchants and may cause deterioration of the consumers' ability to carry out their rights as a consumer and also failed to force the dealer to act accordingly (Suraiya & Nur Faridah, 2012). This problem not only occurs in Malaysia, but in Turkey as well. According to a research by Kaynak, Kucukemiroglu and Odabasi (1992), the number of compensation claims has increased since 1981. This indicates that Turkey consumers are increasingly focused on their rights as a consumer. Besides consumer rights that are recognized around the world, consumers also at the same time should fulfill their responsibility to produce balanced and responsible consumer in the market. Past research demonstrates that consumer behavior is influenced by value, attitude and knowledge (Laroche, Bergeron, & Barbero-Folio, 2001). Due to these aspects, especially knowledge guides consumer in decision-making, the level of knowledge towards sustainability consumerism is vital.

Besides that, Social Cognitive Theory asserts learning concept in a social context that is, a reciprocal interaction or triangular relationship between individual factors, environment and behavior (Wood & Bandura, 1989). There are several components in the individual factors which are cognitive, affective, motivation, skills, and self-efficiency. However, these studies only focus on cognitive and affective components. The cognitive component is related to the knowledge whether they know or not about consumerism which will give the impression to their consumerism practices. However, affective component is consumer acceptance of something cause based on the values held by them. Two components are formed in these studies which are knowledge and consumer values.

Consumer value which is a new element in the NCP 2010, is an important principle drives the consumer towards a prosperous life in the market. Consumer values refer to the principles held by the consumer based on the five basic values that should be held by the consumer accordingly; (as responsible consumers, we must ensure that our consumption patterns and lifestyles do not contribute to the economic exploitation and oppression that disregard human and humane values), money (consumers must ensure that for the benefit of all they should not contribute to any loss in the value of our hard-earned income brought about by indiscriminate purchases and wasteful spending habits), environment (the pre-condition for the life-support system to continue to function is an ecologically balanced environment that is able to regenerate itself on an uninterrupted, continuous basis), democracy (as members of the civil society, consumers give the mandate to members of civil society through the process of election to govern them. Government in a democracy is the servant of the people, and citizens as consumers have a right to government services that are responsible, transparent and accountable) and justice value (consumers, through their role as consumers and citizens, owe a responsibility to ensure value for justice, not only for ourselves as consumers but also for the trader, the investor and others involved in the economic and social system) (Fazal & Bishan, 1991). These values are introduced by Bishan one of the prominent consumerism figure in Malaysia which are capable of influencing consumer practices and decision-making. Tabara and Giner (2004) stated that, high knowledge level accompanied by values and cultural perspective is the main essence to educate people in the modern society. Jariah et al. (2013b) conducted a study among Malaysian consumers regarding consumer well-being found that consumers are more focus on value of money instead of

higher values like environment and justice value. However, consumers should appreciate of each the value so that consumer rights and responsibilities go hand in hand, while to ensure self-protection that will be done by the consumer is effective.

3. Methodology

The dependent variable in this study is consumerism practice refers to the frequency of behavior or consumer action in implementing consumer responsibility based on five responsibilities outlined by the International Organization of Consumer Union (IOCU) or now is known as the Consumer International (CI). On the other hand, independent variables are consumer legal literacy and consumer value. Consumer legal literacy is knowledge related to the eight consumer rights, five consumer responsibilities and basic consumerism laws outlined under the Malaysian Consumer Protection Act (CPA) 1999, including the implied guarantees relate to goods and compensation mechanisms. Consumer value is based on five basic values should be held by the consumer. The value consists of value of human beings, money, environment, democracy and justice (Fazal & Bishan, 1991).

3.1 Sampling

Data were collected through a survey using questionnaire at few of Institute of Higher Learning (IHL) in the Northern, Western, Eastern and Southern zone of Peninsular Malaysia and Sabah and Sarawak. There are ten institutions being selected among GPS in the list issued by Ministry of Domestic Trade, Cooperatives and Consumerism (MDTCC) using simple random sampling. After that, a total of 400 respondents among the members of the GPS in ten institutions were selected by systematic sampling technique. Data collected were self-administered and questionnaires were filled out by respondents themselves. The data were collected from 30th September and ends on 28th November 2013.

3.2 Measurement

The instrument consists of four parts, namely Section A, the background of the respondents, Section B, consumer legal literacy, Section C, and Section D are consumer value and consumerism practice respectively. In Section B, consumer legal literacy (consumer rights, consumer responsibility, knowledge on consumer definition and legal framework, knowledge on the laws regarding goods and services, knowledge on redress mechanism, Halal and safety logo). The question is a closed-ended question with "right" and "wrong" responses and fill in the blanks for open-ended questions, while Section C, questions are in Likert scale of 5, "1 = strongly disagree" to "5 = strongly agree". In Section D, a 4 Likert scale response were asked from "1 = never" to "4 = always". Questions were adopted from previous study which are Naemah, Elistina and Azimon (2012) based on consumer law under the CPA 1999. While questions about the consumer value is modified based on the five basic consumer proposed by Fazal et al. (1991) which are human, money, environment, democracy and justice value.

The questions in consumerism practices were based on the five responsibilities listed by CI. Consumerism practices portion comprised of 17 items practice has been analyzed using factor analysis. According to factor analysis, there are five dimensions being produced which are the practices of expression, information seeking, sensitivity before purchasing, concern towards consumerism issues and involvement in consumerism activities. Expression dimension refers to the practice of voicing out opinion, dissatisfaction, share their views and made complaints. Whereas, seeking information is about the practices in comparing prices and obtains products information before purchasing. Practices such as reading labels, utility bills and the terms and conditions of the agreement before the purchasing can be referred to dimension of sensitivity before purchasing.

Reliability testing was performed using Cronbanch's Alpha Reliability Test. This test was conducted twice after the pre-test and the second time after the completion of actual data collection. Both results find the instrument reliability is reliable with alpha value of 0.937 for consumer value, while consumerism practices of 0.917.

A pilot test was conducted on 20 respondents. The Cronbanch alpha showed satisfactory internal consistency score ranged from 0.91 to 0.93 (Table 1).

Table 1. Reliability score

Construct	Cronbach Alpha (Pilot)	Cronbach Alpha (Post)
Consumer' values	0.937	0.795
Consumerism practices	0.917	0.840

3.3 Analysis

Data were analyzed using the Statistical Package for Social Science (SPSS) and discussed in descriptive analysis in order to explain the background of the respondents. Chi Square test (Pearson Chi-Square) was used in this

study to carry out the profiling of respondents in consumer legal literacy, consumer value and consumerism practice among GPS.

4. Results

4.1 Background of Respondents

Based on Table 2, a total of 34.8 percent of the respondents were male and 65.3 percent were female, with the largest age percentage was between 18-20 years with 52.3 percent. Most of the respondents were Malay, (79.5 %) followed by 13.8 percent were Chinese. Total number of ethnicity revealed that majority of the members in GPS was Malay which consistent with the population in Malaysia because most of the population is Malay. The respondents were comprised of 77.8 percent of public university students with 81.0 percent of them pursuing a bachelor degree. Three quarter of them were studying in Arts stream (76.5%) whereby 42.8 percent of them were in Year 1. From the total population of respondents, duration as a club member was mostly between 1 and 2 years (40.5%). The majority, more than three quarter of the respondents (87.8%) only became an ordinary member of the consumer club (GPS).

Table 2. Background of Respondents

Characteristics	Frequency	Percent (%)
Gender:		
Male	139	34.8
Female	261	65.3
Age:		
18-20	209	52.3
21-24	180	45.0
25-27	11	2.8
Ethnicity:		
Malay / Bumiputera	318	79.5
Chinese	55	13.8
Indian	16	4.0
Others	11	2.8
Institute of Higher Education:		
Public University	311	77.8
Private University	89	22.3
Education Level :		
Diploma/Certaficate/STPM	71	17.8
Bachelor	324	81.0
Master/PhD	5	1.3
Field of Study:		
Sciences	94	23.5
Arts	306	76.5
Year of Study:		
Year 1	171	42.8
Year 2	137	34.3
Year 3	65	16.3
Year 4	27	6.8
Membership:		
< 1 year	149	37.3
1-2 year	162	40.5
>2 year	81	21.0
Club Role:		
Committee member	46	11.5
Member	351	87.8

4.2 Consumer Legal Literacy

Consumer legal literacy can be divided into six parts; consumer rights, consumer responsibility, definition and legal framework, law on goods and services, compensation mechanism and logos.

Based on Table 3, the results show that the highest mean is on the consumer rights, which is 0.78. Nevertheless, the lowest mean is knowledge towards Halal logo and safety with 0.32.

Table 3. Mean knowledge of consumer legal literacy

Dimension	Mean	SD
Consumer rights	0.78	0.14
Consumer responsibility	0.67	0.15
Knowledge on consumer definition and legal framework	0.58	0.23
Knowledge on the laws regarding goods and services	0.52	0.17
Knowledge on redress mechanism	0.62	0.13
Knowledge on Halal and safety logo	0.32	0.19

4.3 Consumer Value

Consumer value is one of the variables studied in this research. There are five basic values proposed by Fazal & Bishan (1991), which are the value of human, money, environment, democracy and justice. Based on Table 4, most of the consumer value possessed by the respondents is environmental value with the mean of 4.59, while the value of money is the lowest value with the mean of 3.86.

Table 4. Mean of consumer value

Dimension	Mean	SD
Money value	3.86	0.86
Human value	4.08	0.81
Democracy value	4.36	0.67
Justice value	4.38	0.66
Environmental value	4.59	0.56

4.4 Consumerism Practice

Based on Table 5, the results show the mean of consumerism practice according to five dimensions. Results signified that the mean of seeking information dimension is the highest which is at 3.34, followed by sensitivity before purchasing at 3.17. The lowest mean were dimension of expression and participation in consumerism activities with 2.58 respectively. Responses were also low in expressing opinion on certain things associated with consumerism.

Table 5. Mean of consumerism practices

Dimension	Mean	SD
Expression	2.58	0.74
Seeking information	3.34	0.64
Sensitivity before purchasing	3.17	0.72
Concern over consumerism issue	2.84	0.65
Involving in consumerism activities	2.58	0.63

4.5 Summary of Respondents Profile on Consumer Legal Literacy, Consumer Values and Consumerism Practice

Based on Table 6, a summary profile of the respondents on consumer legal literacy, consumer values and consumerism practices have been produced. Profile has been set up just for people who need more exposure in consumer education which are for those with low level of knowledge, negative consumer value and negative consumerism practice. Each level is determined by adding all the scores for each item and then divided into several groups based on percentile, i.e. 25%, 50% and 75%. Socio-demographics studied were gender, age, ethnicity, Institute of Higher Learning, education level, year of study, field of study, club membership and club role position by using Chi Square test (Pearson Chi-Square). For the low level of knowledge, only age, year of study, club membership and club role has a significant differences regarding consumer legal literacy. Based on Chi Square test ($\chi2 = 3.233$) represents that there is a significant differences in the age regarding consumer legal literacy (p = .000). The study found that the respondents between 18 to 20 years were at the lowest level with 52.2 percent. This shows that for those aged 18 to 20 years who were at matriculation and diploma level or can be known as A-level, still has less exposure related to legal literacy since they were newly involved in GPS. Therefore, they need to be addressed in terms of consumer legal literacy so that they can obtain the same level of knowledge with the older age groups through a variety of programs that will be organized in the future.

Next, for the year of study, test of Chi Square ($\chi2$ = 16,894) denotes that there is significant differences with the level of consumer legal literacy (p = .000). This study found, students in Year 1 and 2 are located on the lower level of knowledge with a total of 46.1. These results indicate that students in Year 1 to 2 are still new to consumerism and thus low in consumer legal literacy.

Chi Square ($\chi2$ = 20.885) result also stated that the duration of membership variables has significant differences with the level of consumer legal literacy (p = .000). The study found, for those acquired membership less than 1 year has the lowest level of knowledge at 45.8. Logically, the level of involvement affects their knowledge about consumerism and it is proven in this study. Those become a member less than one year has a low level of knowledge than those who have long been involved in the consumer club. This may be due to the adoption from various source of knowledge through consumer education programs. Anyhow, it needs to be improved so that they are totally well-versed in consumer legal literacy and then practice it in their daily life. Thus, GPS member can act as an example to friends and family members as well as the consumers in general.

Table 6. Summary profile of consumer towards consumer legal literacy, consumer values and consumerism practice

Socio-demographic	Low level of consumer law knowledge (n=166)	Negative value of consumer value (n=202)	Negative consumerism practice (n=210)
Gender			
Male	56(40.3)	81(60.0)	77(55.4)
Female	110(42.1)	**128 (49.0)**	133(51.0)
Sig. (p)	0.278	**0.015***	0.397
χ^2	2.557	5.914	0.716
Age			
18-20	**109(52.2)**	109(52.9)	115(55.0)
21-27	37(45.1)	93(50.0)	95 (49.7)
Sig. (p)	**0.000****	0.564	0.290
χ^2	3.233	0.332	1.118
Ethnicity			
Malay	129(40.6)	161(51.8)	171(53.8)
Non Malay	37(45.1)	41(50.6)	39 (47.6)
Sig. (p)	0.199	0.853	0.315
χ^2	3.233	0.034	1.009
Institute of Higher Learning			
Public university	131(42.1)	159(52.3)	168(54.0)
Private university	35(39.3)	43 (48.9)	42 (47.2)
Sig. (p)	0.863	0.570	0.255
χ^2	0.294	0.323	1.294
Education Level			
Diploma	35 (49.3)	43(61.4)	35 (49.3)
Bachelor/ Master/PhD	131(39.8)	159 (49.4)	175(16.7)
Sig. (p)	0.328	0.068	0.551
χ^2	2.231	3.343	0.355
Year of Study			
Year 1-2	**142(46.1)**	156(51.8)	169(54.9)
Year 3-4	46(50.5)	46(50.5)	41 (44.6)
Sig. (p)	**0.000****	0.831	0.082
χ^2	16.894	0.046	3.017
Field of Study			
Sciences	43(45.7)	51(54.8)	46 (53.6)
Sastera	123(40.2)	151(50.5)	164(54.2)
Sig. (p)	0.617	0.465	0.429
χ^2	0.967	0.534	0.626
Membership			
<1 year	**142(45.8)**	161(53.1)	168(54.2)
>1 year	24 (26.7)	41 (46.1)	42 (46.7)
Sig. (p)	**0.000****	0.241	0.208
χ^2	20.885	1.376	1.585
Club Role			
Committee	14 (30.4)	18 (39.1)	19 (41.3)
Member	**151(43.0)**	184(53.6)	190(54.1)
Sig. (p)	**0.029***	0.064	0.101
χ^2	7.057	3.423	2.684

*Significant (two-tailed) at p < .05; **Significant (two-tailed) at p < .01

Lastly, Chi Square ($\chi2 = 7.057$) results magnify that there is significant differences between club role variable and the level of consumer legal literacy (p = .029). The study found that being as an ordinary member was at low level of knowledge (43.0%). Thus, the ordinary members should be given priority in order to increase consumer legal knowledge compared to committee members. However, other socio-demographic characteristics such as gender, ethnicity, Institute of Higher Learning, level of education and field of study did not show a significant difference, consequently an equal exposure should be given to all.

For the profile of the respondents associated with negative consumer value, only gender has the significant result in respect of consumer value. Based on the results Chi Square ($\chi2 = 5.914$) test showed that there is significant differences in the variables of gender on consumer value (p = .015). The study also found that, the score of consumer value among male at the negative value score of 60 percent. Therefore, male should be emphasized in inculcating good consumer value in the future where as other socio-demographic characteristics should be given equal emphasis.

In terms of socio-demographic, study by Dutton, Salleh and Ahmad (2011), found that most female respondents in Bandar Baru Bangi and Kajang have make a claim directly to the consumer tribunal compared to male respondents. This may due to female respondents are more concerned or fussy and more sensitive when they experience dissatisfaction while shopping. Similarly, a study conducted by Curt and Gross (2003) found that demographic factors such as gender affect consumer knowledge. It seems that only male and young consumers who are prone to protect their consumer rights.

The profile of consumerism practice showed that no significant results. Hence, all the features in the socio-demographic characteristics as specified in the table should be emphasized equally in order to improve their practices in consumerism evenly without any exception. While related to sustainable practices, Farhan and Mumtazah study (2010), found that student's background factors, such as where the respondent was raised and ethnicity affects the sustainable practices of the respondents and found that rural respondents contribute the most in reducing and recycling when scored high in positive statements in contrast to the respondents living in the city.

5. Discussions

Referring to the descriptive analysis of consumer legal literacy, most respondents knew about consumer rights. On the contrary, the results conducted by Jariah et al. (2013b) study found that less than one third of respondents knew about all the eight consumer rights that have been long introduced. In the same study, they found that without knowing the consumer rights, consumers certainly do not know about their responsibilities as a consumer and will not be able to fulfill the government's efforts to enhance their self-protection. The lowest mean score shows that most of the respondents have less knowledge about Halal logo and safety. For example, there were still many respondents who were unable to compare the Halal logo issued by Department of Islamic Development Malaysia (JAKIM) and could not identify 'EU Standards logo' (CE) perfectly. This study also found that respondents were more likely to hold environmental value, when most of the respondents agreed that the practice of recycling is necessary to ensure their well-being. Overall, respondent's value of consumer indicated that they held onto more environment value rather than money, humanity, democracy and justice.

Meanwhile, the results of this study also contradict with the findings of Amim and Sharifah (2006) which disclosed that the level of consumer knowledge on the Halal logo is high in which 233 respondents (75.4%) can recognize the logo. They knew the logo issued by the relevant authorities, whether from within the country or abroad, and only a total of 76 respondents (24.6%) did not know the Halal logo issued by the authorities. According to Mohd Ali and Nor Aini (2010), among the consumerism issues are consumer confused with various forms of Halal logo used in the market as one of the causes of consumer less knowledgeable about Halal logo issued by the authorities. Consumers often fail to identify the genuine Halal logo. Diversity of Halal logo has affected the buyer's decision to purchase Halal products (Sanep, Hairunizam & Surtahman, 2007). Overall, this study showed that respondent knowledge is very basic which solely focus on the eight consumer rights against other knowledge. Therefore, it is about time for the government and consumer associations to change the direction of implementing consumer education program to the next level with wider consumerism knowledge and not only focus on the eight rights alone.

Based on the result of consumer value, the respondents have a good value in all the five values that are important to consumer. Yet, respondents were more focused on the environmental value and less towards the value of money. These values should be balanced with each other, especially the value of money since it is related to the right to get basic consumer needs. This can be achieved if the consumer themselves carry responsibility through their usage of money. These results are in contrast to Jariah et al. (2013b) findings; the consumers generally put

high importance in spending wisely, non materialistic and ensure that the money they spend is worth it. Thus, the consumers need to ensure that the money spent does not contribute to any loss of their overall income value. Appreciation of the value of money can help in reducing the occurrence of bankruptcy, especially to young people. Accordingly, respondents still need to hold consumerism values equally and it is hoped that through educational programs in universities and consumerism activities organized by the ministry and consumer associations, it can inculcate good value to all GPS students.

Next, respondents were more towards seeking information dimension for consumerism practice and followed by sensitivity before purchasing, concerns over consumerism issue, expression and involvement in consumerism activities. This study was supported by Jariah et al. (2013) research that related to the basic practices of consumerism in the rural consumer which found that more than 70 percent of respondents regularly buy goods with high quality standards and inspects the items before purchasing. This shows that the consumers have the awareness to criticize in the market. Awareness towards criticism refers to the responsibility to be more aware and curious about the price and quality of goods and services being used. A responsible consumer should not be silent, but to voice out for the good quality of goods and services at reasonable price. Thus, consumerism practice is becoming steadily important to consumers themselves, society, nation and environment. If observed in detail, the results show that consumerism practice pattern among the respondents was more prone to activities involving themselves compared to activities involving consumers and society at large.

Last but not least, as a results from the respondents profiling, characteristics of respondents should be emphasized to all demographic characteristics regarding consumer legal literacy except, for those by the age between 18-20 years, between 1st and 2nd year of study, membership less than one year and as an ordinary member without any role in the club. Meanwhile, efforts to increase consumer value and consumerism practice should be emphasized equally to all demographic characteristics, except for female in consumer value.

6. Conclusion

This study is important because it provides some implications to the GPS members itself, government, consumer associations and universities. Among all, findings of this study can be used as a guide to the government, especially MDTCC to drive GPS in Malaysia in terms of more active education programs, especially efforts to increase consumer legal literacy among GPS members so that they understand better regarding consumer legal literacy especially in reading the Halal and safety logo. Government should formulate and organize programs related to knowledge on labeling especially on food packaging or other items. This is because these skills are very important for the consumers themselves in evaluating each item particularly on Halal and safety issues, such as electrical and electronic appliances. Knowledge in labeling is vital in food choice even if those actions seem simple, but the contribution towards assisting in making healthy food choices or better product are very important (Cowburn & Stockly, 2004). In addition, it also helps in making comparisons with other items. However, knowledge acquired by the respondents hopefully will be applied and shared with other university students and the community in general.

Additionally, the value hold by each consumer is important. Based on the results of this study clearly shows that the respondents' value of consumer are focused more on environmental value and less on value for money. This indicates that respondents are less focused on financial management so they would suffer a loss because of their poor financial planning. However, as we all know, it is not easy to change the value of a person and it requires careful planning and ongoing program for inculcating a balanced consumer value. Among the programs to be implemented are related to the preparation of expenditure, financial management, balancing between income and expenses and so on. Failure in good financial management is likely to lead more young people involved in bankruptcy.

The findings can also be used by the consumer associations in Malaysia because they are also active members in consumerism. Consumer associations are also seen as an organization that can play a role to make improvements by providing training and information to GPS members in their activities. These improvements can be focusing on the content of the program. In addition, consumer associations can also adopt the GPS members so that they can be actively involved in the association even after graduation and thus be able to contribute ideas and energy to the association in the future.

Finally, the results from the analysis of consumerism practices displayed the lacking of GPS members to participate in consumerism activities. This is something that should be taken seriously because of the level of measurement is measured subjectively, which indicates that respondents personally felt that they were less involved in consumerism activities. Workshops and seminars as well as a special course focusing on the consumerism practices through their role or responsibilities as consumers should be frequently conducted. The

government also is proposed to intensify efforts in educating the consumer about the importance of these consumerism practices, as well as promoting their practices through the mass media. This study will also be beneficial to the university, particularly club advisor in organizing activities that are more appropriate and beneficial to the members of the club. For example, conducting educational activities, in line with the learning modules and programs related to consumerism (workshops, seminars, lectures by consumerism experts, brochures publication, newsletters) in the future. Similarly, it is also suggested that primary and secondary school curriculum need to be revised to include knowledge of consumer education, consumer value and consumerism practice in their education systems. Education at this early stage is very important to impart knowledge and inculcate value of students who are also consumers when they grow up. In this aspect, the teacher plays an important role in guiding and encouraging the younger generation to be prepared in terms of knowledge on consumerism while at the same time practices consumerism actively and consistently.

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Instrument Development for Organisational Health

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Abstract

This study establishes the factors influencing Organisational Health (OH), leading to the development of an empirical measurement instrument. Despite the fact that a few firms have understood the significance of measuring health, they mostly do not know precisely what to measure, because of an absence of understanding of what constitutes a set of organisational health dimensions. This study used a mixed method through literature review, expert opinion and a quantitative pilot survey with 123 supervisory staff from a telecommunication company in India. The instrument was further tested for standardisation in Malaysia, Bangladesh and Indonesia. The study identified an OH measurement model consisting three constructs such as Change Capacity, Goal Alignment and Competitive Advantage. There are 29 items which collectively influence the degree of OH in an Organisation. By proposing, creating, and validating a multi-dimensional, operational measure of the organisational health, and by showing its viability in enhancing organisational performance, the present study gives practitioners a handy instrument for assessing the extensiveness of their current OH initiatives. The experts while interacting for the study expressed a uniform opinion regarding the OH constructs and its factors. We believe that developing an objective measurement instrument for organisational health is a significant contribution to the body of knowledge.

Keywords: organisational health, goal, performance, culture, competence, change, alignment

1. Introduction

The dynamic process of organisational health is sustained through the complex integration of cultural, resource based and internal organisational processes (Macintosh, MacLean, & Burns, 2007). Organisational Health has been a closely monitored topic with its ever growing importance and equal seriousness, both in the academic and industrial world. If we can espouse the fact that healthy people can perform well to bring out the desired outcomes, the same can be applied to the organisational functioning as well (Lucia & Lepsinger, 1999). Organisational Health can be defined as the ability of the organisation to sustain business performance over time and through changing environment, which will be attributed directly on the ability to learn faster than the competition and its capacity to change internal structures dynamically (Gupta, Sleezer, & Russ-Eft, 2007). Every organisation wants to be healthy and successful how much ever small or big it is. It is not only the ability to adapt to the current environmental changes, but the anticipation about what is coming even before the competition realizes about it, also determines direction of organisational health. As Lencioni (2007) puts it, even smartest of the organisations which have mastery over strategy, finance and marketing can fail if it is unhealthy. Janice (2000) terms health of an organisation as the readiness of the organisation to react to changing business environments. She further emphasized on the collective competency of the organisation to align, innovate and execute products and services faster, better and cheaper than the competition. Rummler and Brache (2012) further elaborated OH as a function of intricate and entwined set of variables as explained in human anatomy, physiology and psychology. For simplification purpose, OH is all about the competitive advantage of a company through the well-being of its integrated internal systems (Chopra, 2013).

2. Objective

The objective of the present study is to develop an empirical instrument to measure OH by clearing the dimensional ambiguity in the literature and by identifying the appropriate constructs, underpinned by the systems theory. The instrument, thus developed is expected to provide academicians and practitioners a guidance to understand OH under changing business conditions.

3. Literature Review

The concept of OH was first discussed in literatures when Miles (1969) developed an initial configuration of OH, comprising ten core elements. Ever since, there have been many research and intellectual discussions conducted around the topic. The ten elements identified by Miles are reproduced in the Table 1 under three broad system constructs. Majority of the past studies have confirmed the possibility to differentiate between healthy and unhealthy organisations through the characteristics of overall performance and a healthy mix of financial status (Arnetz & Blomkvist, 2007, p. 242), and an unhealthy organisation, characterised by alarming levels of performance problems and the consequent decline in production, revenue and bottom lines (Jaimez & Bretones, 2011). Though the definition and concept of OH has been varied and disparate, an observed unanimity can clearly conclude that it is the ability of the organisation to sustain its superior performance and stay ahead of competition. To meaningfully gauge OH, it is important to understand how it translates into meaningful performance.

Miles (1969) developed a three dimensional model of organisational health arising out of the business delivery needs of an organisation. These needs if pursued properly from the maintenance, task and change perspective will drive organisations to sustainable health and business success. The dimensions and items under the singular construct of OH as identified by Miles are reproduced in the Table 1.

Table 1. Core elements of OH as described by Miles (1969)

Maintenance needs	Task needs	Growth and change needs
Resource utilization	Goal focus	Autonomy
Cohesiveness	Communication adequacy	Adaptation
Morale	Optimal power	Innovativeness
		Problem-solving adequacy

While analysing organisational health in the comprehensive enterprise model, Fiorelli et al. (1998) compared organisation with a human body for all the intrinsic system complexities. Rummler and Brache (2012) take this forward by explaining that as the doctor needs to understand the patient's external factors, it is important to look into the external environment of an organisation to better understand it's health. According to them, this environment consists of customers, suppliers, resource providers, government, and economy. As equal as external factors it is also essential to understand the internal factors like culture and human capabilities. Fiorelli et. al. (1998) describes Organisational health as a relatively new HR matric to assess the level of commitment by the management towards action.
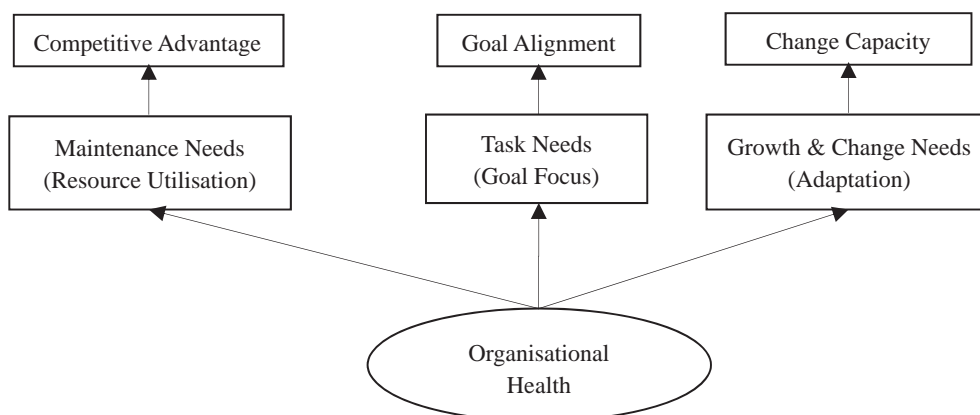

Figure 1. Reflective constructs of OH

The dimensional reflection of organisational health from resource, goal and adaptation perspective as explained by Miles (1969) can be re-constructed to today's business context from resource based view as competitive advantage, from balanced score card view as goal alignment and from adaptation perspective as change capacity. With these three dimensions at the hindsight, the theoretical model proposed for OH constructs in this research study is given in Figure 1.

Healthy organisation, as a concept was introduced in the past decade by some authors while studying fitness of organisations from different angles. Promotion of healthy work practices was given priority while observing health as opposed to having policies and process around to prevent physical and physiological problems in the workplace (Sorge & van Witteloostuijn, 2004; Kelloway & Day, 2005; Grawitch, Trares, & Kohler, 2007). They propose that the way the organisation is positioned in terms of change capacity, competence readiness and common goal alignment may have wide range of impact on the effectiveness of the organisation (Wilson, Richardson, Dejoy, Vandenberg, & McGrath, 2004). Wilson et al. (2004) proposed organisational health as the ability of the firm to create and sustain work related processes that engender a status of wholesome physiological, psychological, and social well-being in their employees, which translates into superior firm performance and work efficiency.

4. Theoretical Underpinnings

In a system model, each cell acts as an independent intelligent unit. These cells are held together to form the body through an enormous and a continuous stream of information. A dynamically balanced state of health is represented by the term, Homeostasis and any imbalance in the health system is represented by inflammation which causes many if not most diseases (Chopra, 2013). Systems theory in organisational context as elaborated by a reach of scholars (e.g. Ashby, 1962; Boulding, 1956; Churchman, 1968) leads into two fundamental issues: firstly, the correlation of several constituents within the organisation and with the organisation as a whole; and secondly, the kinship between the whole system and its feeder environment. There have been many concentrated studies conducted to interpret these relationships better, in the field of organisation development (Argyris & Schon, 1978; Senge, 1990).
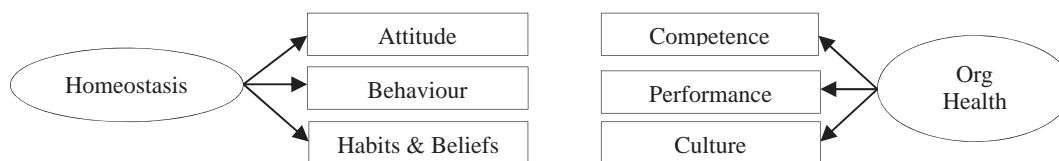

Figure 2. Comparison of OH with system model

If Homeostasis or well-being of a person can be derived from her habits, beliefs, attitudes and behavior, the same constructs will be applicable in case of an organisation under the realms of systems theory. While the habits and beliefs can be correlated to Culture and change capacity within a firm, the attitudes can be equated to the business readiness in terms of competitiveness and at the same time the behaviour can be explained through the business performance or the balanced goal alignment process.

5. Organisational Health Constructs Explained

According to Jaffe (1995), the performance of an organisation and its employee's health & satisfaction are important factors comprising OH. Health is never at static state. If the OH constructs can be metamorphosed into a state of three dimensional personified existence through physical, mental and social well-being, an explanation of these distinct but integrated dimensions can be compared as constructs of competitive advantage, goal alignment and change capacity.

5.1 Competitive Advantage

Health, if looked at from the perspective of Resource-Based Theory (RBT), will be supplemented and complimented by sustainable competitive advantage. Such advantage is seemingly derived from the organisation's internal pool of resources which constantly are refreshed for value, rarity, inimitability and non-substitutability (Cappelli & Hefter, 1996; Foss & Knudsen, 1996). Concentration on specific firm level competence is what gives sustainable competitive advantage to the organisation (Bergenhenegouwen et al., 1996). In this school of thought, there is limited scope for generic competence frameworks; as Hamel and Prahalad (1994) note, adhering to the current list of competence rigidly may impact the very essence of ongoing and current successfactor and resultant health.

Rarity: While technology is driving the newer planes of competitive environment today, the growth and success of organisations are clearly governed by the availability of knowledge and expertise i.e. the fitting competence of the business embedded in the workforce (Bartlett & Ghoshal, 1993).

Value: Core competencies, if developed from within are sustainable than those picked up through imitation from the competition or adopted off the shelf and thus remain most valuable resource to the organisation (Collis, 1994).

Inimitability: Intentionally inbuilt causal ambiguity makes the core competencies inimitable, as the nature and operability of its components remain invisible and hazy, making them complicated for the competition to understand, copy or imitate (Pisano & Shuen, 1997; Teece, 1998).

Non-substitutability: Zander and Kogut (1995) noted that codified competencies within the firm are unique to positions, functions and domains which more importantly aligned to the product, process and service value chain. The time and effort required to build such unique competencies make them not easily substitutable by any other related competencies by the firm itself or by the competition.

A reasonable explanation to the superior performance results produced by some organisations is the competitive advantage they possess within, in terms of the above explained competence components. Capabilities that provide superiority and sustainable competitive advantage are an organisation's core competence. They are the renewable sources for productivity through the tough market and economic conditions.

5.2 Goal Alignment

As established through their concept of Balanced Score Card (BSC), Kaplan and Norton (1992) argued, that a performance oriented organisational environment has always been conducive to financial growth. Through BSC, they introduced the measurement model of intangible assets of a firm which are integral part of the value creation system. Kaplan and Norton segmented such intangibles into four dimensions i.e. Financial, Customer, Learning & Development and Internal processes.

Customer: From time immemorial, the importance of customer centricity remains a non-negotiable instrument in defining the products and services of a company. Customer is central to everything an organisation tries to do. With this underlying fact, the BSC identifies all the customer related initiatives and key performance indicators (KPIs) segregated under one basket. Customer Orientation, service and satisfaction are some of the most researched topics in the organisational studies around the world.

Financial: Financial measures are integral part of an organisation's performance measurement matrices. Unless created for the objective of social service and non- profit, all firms look forward for revenue generation and profit maximization. All the resources, efforts and initiatives within the firm are optimized and channelized for this purpose. Continuous improvement of revenue and consistent delivery of promises to shareholders are clear indications of the company's good health. When such indicators show declining trends, a thorough examination of the health parameters needs to be evaluated for appropriate interventions.

Internal process: Processes are the vehicles for companies to carry out various initiatives in delivering services and products to market. It is essential to have an operating efficiency in each process area. The processes, thus define should be road worthy to take the company to the next level of growth. A great amount of flexibility is required to ensure processes are continuously re-engineered to contain the changing business scenarios.

People: Learning and development is an area which seldom features in any of the success scorecards of the firms. The power of learning and development was recognized by companies when the knowledge industry became predominant in the later part of the previous century. People development through learning and training thus found a strategic place in organisational scorecards.

BSC is considered a panacea for any goal alignment defects as this model ensures collection of all goals into four major buckets which directly impact the organisational performance from the perspective of Customer, Stakeholders, employees and internal processes.

5.3 Change Capacity

According to McKinsey & Company (2009), sustaining health involves concentrating towards the human side of an organisation and not so important for the management of hard numbers. This is a departure from the objective measurement driven approach suggested by the proponents of Balanced Score Card. For the purpose of this study, the researchers have adopted the Organisational Health Index, developed by McKinsey & Company (2006) and adapted the five dimensions explained by them through culture and change capacity. These five cultural and change dimensions (Aspire, Assess, Architect, Act and Advance) explain the ebb and flow of the vision-mission journey of an Organisation.

At the beginning of any journey it is important to aspire to be where the organisation wants to be and visualize changes and challenges through the journey. Aspiration makes change-vision meaningful to employees and it defines the underlying health. Once the aspirations are clear to all, it is essential to understand the overall readiness of the firm, to bring alive those objectives. The understanding of the substantial capabilities which dictate the aspirations and current gap in such capabilities are important for organisations to be wary of. An

internal self-assessment of capabilities, mind-sets and available support ecosystem may uncover the initiatives and steps the organisations need to take to remain healthy.

Once the company is fully aware of its internal capabilities and where it wishes to traverse, it becomes imperative to ensure different parts of the system which need to be overhauled and refreshed as one team to manoeuvre the path which is hard to navigate. At this stage, the company readies itself for collective solutions, customer driven organisation. Along the journey it learns to drop the rigid and formal systems, structures and processes and trigger performance improvement initiatives.

Acting is all about creating change concepts and proof of feasibility to create value across organisations. McKinsey's study suggests that not too many companies move on to the step of creating a proof of feasibility. Acting also involves adding diversity to the workforce to ensure intrinsic energy is unleashed on an ongoing basis. Building upon the transformation efforts, McKinsey & Company suggests that a host of improvement infrastructure need to be cultivated to enhance the change capacity. This will ensure sustenance of health over a period of time. Giving authority to employees and instilling competitive spirit right through the organisation is required to maintain this status of health.

A reasonable explanation to the superior performance results produced by some organisations is the competitive advantage they possess within, in terms of the above explained competence components. Capabilities that provide superiority and sustainable competitive advantage are an organisation's core competencies. They are the renewable sources for productivity through tough market and economic conditions.

6. Need of an Instrument

There have been many studies and experiments conducted about organisational health by both researchers and practitioners during the past two decades. However, the definition of Organisational health has never been settled into a single agreed concept. Studies hitherto defined the OH as a crude combination of disparate constructs. Majority of the literature related to OH points to the Organisational culture, performance or employee well-being. Several studies are centered on the aggregate physical and mental health of employees. Measure of OH is not sufficiently explained in these studies. The instrument for such measurement is absent in the literature. The available measurement instruments for OH are disintegrated and dimension focused. It is thus imperative that a fitting definition to OH needs to be derived and an appropriate measurement instrument be developed for future use. This study attempts to address this gap by focusing on the reflective constructs and items of OH instrument.

7. Research Methodology

As a first phase of the research, to clear up the confusion prevailing in the concept of organisational health and its dimensions in context of technology sector and to arrive at an assessment framework for the same, the researcher followed the qualitative methodology using case studies and expert opinions. To extend the assessment framework into a measurement model, further quantitative experiments are required with appropriate reliability and validity tests. Such mixed methodology gives a researcher several design choices through the experimentation phase. Research approaches with pragmatist paradigm with a parallel examination of qualitative and quantitative methods follow this category (Tashakkori & Teddlie, 2010). In a nutshell, the qualitative research method supported in identifying and fixing the variables in the theoretical framework and the quantitative study supported in the generalization of the findings through the application of right statistical analysis with validated tools and thus this study followed mixed method.

8. Instrument Development for Organisational Health

The literature review on Organisational health revealed that the system theory supports three clear dimensions of health, such as Change Capacity (McKinsey & Company, 2006), Competitive Advantage (Barney, 1991) and Goal Alignment (Kaplan & Norton, 1992). Such an additive approach to combining HR practices into an index not only has been the most common strategy in the literature (Becker & Huselid, 2006; Macky & Boxall, 2007), but also reflects the system thinking that firm performance is a function of change, competence and goals (i.e., a set of mutually reinforcing practices) rather than individual practices in isolation (Becker & Gerhart, 1996; Huselid, 1995; Ichniowski et al., 1999; Laursen & Foss, 2003; MacDuffie, 1995). Through the literature reviews, only two instruments measuring Organisational health were identified. First one is the Organisational Health Report Index (OHRI) developed by Fiorelli et al., (1998) and the second one is the Organisational health Index (OHI) developed by McKinsey & Company (2006). While the first one measured the overall physical well-being of employees, the second one measures only the change readiness of the company. McKinsey's OHI instrument is developed for commercial use and hence empirical validity on this instrument is not available. Moreover, both

these instruments did not fit into the measurement requirements of this study and hence a new instrument covering all the three dimensions of health as supported by the literature needs to be developed.

For the grounded study research, the sample size suggested by Creswell, (2013) is 15-20 and suggested 20-30 participants. For the purpose of this study, the researcher identified a group of senior professionals who are closely associated with Talent and Organisational development process in Technology and Consulting companies across India. While identifying such a versatile team, the researchers have ensured maximum possible heterogeneity in terms of gender, industry segments and job roles. There were 42 such identified panel members from varied backgrounds like, heads of HR, Sales Managers, Consultants, Directors and Technical Architects. Out of the 42 experts approached for this study, 32 of them gave their consent and time to conduct semi-structured interviews with them. The selected panel included 23 male members (72%) and 9 female members (28%). These experts are well experienced and considered authority in their respective area of operations. Having sufficient breadth and depth of experience in the field, these members were cautiously selected to give an opinion about the model variables. Three rounds of interviews with panel members were conducted during the period between December 2013 and May 2014. While the majority of the interview sessions took place face to face at the member's convenience in their respective offices, few sessions were completed over the telephone. Each panel member was briefed by the researchers in detail about the objective and expected outcome from the study. All the conversations were audio recorded and analyzed separately for further details.

While discussing OH at the initial phases, the experts touched upon organisational wellness and importance of understanding its collaborative environment. Few experts touched upon the environment as customers, resource providers, competitors, the economy itself, business process, goals, human capabilities, change culture etc. Upon further discussions the experts unanimously converged to organisation's ability to change, clear goals and human capabilities. A further refinement of these concepts gave way to the three clear dimensions of OH as Change Capacity, Competitive Advantage and Goal Alignment as evidenced in the literature review. They strongly opined that performance & competence dimensions are very important to have 360 degree coverage of OH. This suggestion was clearly supported by the theories around the OH as revealed in the literature review. Table 2 provides the output of dimension and item validation done by the experts.

8.1 Content Validity

Once problem identification has been confirmed by the industry leads and ratification of the inclusive dimensions of organisational health in synchronization with the literature review, the items in the measurement instrument thus identified should be sensitised to the specific study sector for validity of content, to evaluate the items reflecting the appropriate content from the context which the instrument is meant for (Straub., 1989). Through an organised review process, identified experts from the related industry evaluate the level of synchronisation of the variables with different theoretical dimensions and the respective items and also the implicit meaning of each item to see if it conveys what it is supposed to do (Hinkin & Tracey, 1999).

The review process to identify organisational construct items in this study was staged in two sessions. In the first stage the reviewers were given the definition of organisational health with its theoretical dimensions and explanations. This session provided exploratory insight into the major dimensions of OH closely connected with the concepts under this study. Once the experts ratified the relation between OH and its proposed dimensions, they were asked to review each item for the content through a sorting exercise.

8.2 Sorting Exercise

In the first phase, raters were given 37 items generated from the dimension related literature and two available instruments of Organisational health. Raters were asked to pick up the item independently and place each of them into the three dimension buckets to which it most closely connected. A virtual bucket name 'other' was listed to place any items that a rater evaluated as not fitting in any dimension bucket. Any item picked up for 'other' bucket by more than 60% of the reviewers was dropped from the original item list, considering the item as not relevant in the present study context.

Under the change capacity dimension, 27 raters explicitly noted work condition as non-relevant item and placed it in 'other' bucket. Risk taking as an item in change capacity was selected by all the raters. While job security was placed under 'other' bucket by 28 raters, concern for wellbeing and personal health also turned out to be not relevant for this study as selected into other bucket by 26 and 27 raters respectively. With this sorting, change capacity as a dimension of OH emerged with 10 items. In competitive advantage dimension, 27 raters put resource allocation and rewards into 'other' bucket and 29 of them identified remuneration as part of other bucket. Goal alignment dimension items were almost acceptable to majority of the raters while individual

objective as an item featured into 'other' bucket by 30 experts. Considering the weakness of the eight items as almost unanimously indicated by the experts a decision to drop these items from the instrument need to be arrived at based on established decision rules.

Based on the sorting task, literature suggests a number of decision rules to remove redundant items during a content validation process (Bearden & Netemeyer, 1999; Hardesty & Bearden, 2003). Unger and Kernan (1983) administered 70% threshold in 'other bucket' to eliminate the item out of the selection from ten judges selecting incorrect categorization. Studies conducted by Bearden et al. (1990) and Tian and Bearden (2001), benchmarked selection by four out of five judges which is 80% threshold. Various works by Saxe and Weitz, 1982 mentioned 50-80% representation by the experts to retain an item. Manning et al. (2008) fixed a number of items with lowest possible scores. As there were 32 experts participated in the sorting exercise, 22 experts (70%) or above classifies an item into 'other' bucket were taken as threshold to eliminate the point from the proportion. Outcome of the sorting exercise distinguished 29 valid items from a list of 37 which is 78% representation of original list. Table 2 gives the overall scoring of individual items. There is no prior studies existing to check the face validity of the items of change capacity, goal alignment and competitive advantage and these findings ratify the requirement for such evaluation before finalising the instrument.

Table 2. Expert rating table on OH

Dimension	Source	Factor	Number of experts	% (n=32)	Decision
Change capacity	McKinsey & Company, 2006	Management objectives	26	81%	
		Words and action	24	75%	
		Work conditions	5	19%	Dropped
		Voicing opinions	25	78%	
		Readiness for change	31	97%	
		Risk taking	32	100%	
		One team	31	97%	
		Collective solutions	28	88%	
		Agreement	30	94%	
		Job security	4	15%	Dropped
		Authority	31	97%	
		Concern for well being	7	26%	Dropped
		Personal health	6	22%	Dropped
		Diversity	26	81%	
Competitive Advantage	Barney, 1991	Unique competencies	30	94%	
		Resource allocation	5	19%	Dropped
		Business measures	30	94%	
		Rewards	5	19%	Dropped
		Right Skills	27	84%	
		Resources and tools	26	81%	
		Team contribution	28	88%	
		Remuneration	3	11%	Dropped
		Internal source of energy	28	88%	
		Learning	31	97%	
Goal Alignment	Kaplan & Norton, 1992	Customer voice	26	81%	
		Customer decisions	28	88%	
		Business Vision	28	88%	
		Business challenges	26	81%	
		Individual objectives	2	7%	Dropped
		Goal Delivery	32	100%	
		Business targets	30	94%	
		Business strategy	26	81%	
		Line of sight	28	88%	
		Clarity of goals	30	94%	
		Clarity of strategy	30	94%	
		Transparency	29	91%	
		Communication	32	100%	

8.3 Face Validity

According to Benson and Clark (1982), face validity is it is an essential procedure in the instrument development process. Face validity being a qualitative measure used to check validity, its quantification is available through statistical methods. To validate the items identified in the construct, the questionnaire is administered to a set of untrained potential respondents on the basis of convenience. Face validity is a subjective judgment on the operationalization of a construct (Bollen, 1989). Once the sorting exercise was completed by the experts, the list of finalized items (29 items) in OH construct were given for review to five senior staff in one of the telecommunication companies in India. A seven point Likert scale (where 1 = strongly disagree and 7 = strongly agree) was used as the measurement scales for the items. The experts were asked to read each item and cross verify if the item looks prima facie belonging to the Organisational health construct. Also, they were asked to suggest if any syntax and phrase issue identified in the item so that a layperson can easily understand and respond to the item of measurement. It has been pointed out by the experts that in order to develop these items into an instrument mode, factor analysis to be conducted in the later stage. It was also suggested by the experts that the item's length, which was observed during the sorting exercise to be shortened before factor analysis application that ensure better understanding to the respondents. After collecting the suggestions from the respondents, seven items were modified to make them simpler and easier to understand.

8.4 Uni-dimensionality and Internal Reliability

In order to test the instrument's validity, the questionnaire was distributed to 150 technical employees from four telecommunication companies in India. The respondents were selected carefully from a stratified sample of employees from the technical divisions with minimum eight years of total experience. Out of the 150 questionnaire distributed, 123 (82%) employees responded. Hair et al. (2013) suggested a sample size of 100 or above as adequate to conduct exploratory factor analysis. The selection of items to develop scales closely followed previous work and all scales were examined carefully (based on content) to ensure that the multiple items within the single scale actually represent the underlying theoretical construct. In addition, to obtain greater confidence in the scales, reliability test was conducted for all constructed scales, because good scales are expected to exhibit high reliability scores. Sampling adequacy and significance as given by the Bartlett's test in SPSS are given in Table 3.

Table 3. Sampling adequacy table

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.949
Bartlett's Test of Sphericity	Approx. Chi-Square	2915.671
	df	406
	Sig.	.000

An exploratory factor analysis (principal component analysis) of the data with varimax rotation was conducted to provide further evidence for the construct validity of organisational health instrument by modelling the correlations among the three identified indicators. Factor loading of all the items indicated high scores (above 0.6) providing adequate uni-dimensionality to the constructs (Hair, Ringle, & Sarstedt, 2011). Cronbach alpha score for the three dimensions were above 0.7 giving acceptable internal reliability to the instrument (Bryman & Cramer, 1997). To check convergent validity, AVE (average variance extracted) was calculated which were also found to be above the threshold of 0.5 (Fornell & Cha, 1994). Composite reliability scores (CR) of 0.6 above proved internal consistency of construct dimensions (Hair et al., 2011). Table 4 and 6 give the scores for uni-dimensionality, reliability, convergent validity and internal consistency.

Decision regarding item retention was guided by a conceptual structure of organisational health, Kaiser's criteria (Kaiser, 1960), the scree plot (Catell, 1966), and the number and magnitude of factor loadings. As expected by the researcher from the literature review on possible constructs, EFA produced three factors that were above the lower threshold of eigenvalue (factor 1>1.585, factor 2>1.815 & factor 3>15.894) with a cumulative explained variance of 66.53% (Table 5). The scree plot elbow and the percentage of squared loadings distinctively generated three components of organisational health (range 5.46%–54.80%).The construct proved reliable with factor loadings of 0.60 and above for each item. Table 4 gives the distinct dimensions (factors) identified through the EFA.

Table 4. Rotated Component Matrix (n=123)

Items	Component		
	1	2	3
Management objectives (OH11)		.680	
Words and action (OH12)		.655	
Voicing opinions (OH13)		.690	
Readiness for change (OH14)		.693	
Risk taking (OH15)		.762	
One team (OH16)		.703	
Collective solutions (OH17)		.615	
Agreement (OH18)		.756	
Authority (OH19)	.555	.604	
Diversity (OH110)		.651	
Unique competencies (OH21)			.626
Business measures (OH22)			.812
Right Skills (OH23)			.706
Resources and tools (OH24)			.689
Team contribution (OH25)			.700
Internal source of energy (OH26)			.832
Learning (OH27)			.686
Customer voice (OH31)	.605		
Customer decisions (OH32)	.628		
Business Vision (OH33)	.677		
Business challenges (OH34)	.679	.520	
Goal delivery (OH35)	.698	.572	
Business targets (OH36)	.620	.562	
Business strategy (OH37)	.637		
Line of sight (OH38)	.702		
Clarity of goals (OH39)	.717		
Clarity of strategy (OH310)	.746		
Transparency (OH311)	.791		
Communication (OH312)	.754		

Table 5. Result of principal component analysis (n=123)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.894	54.806	54.806	15.894	54.806	54.806	6.963	24.010	24.010
2	1.815	6.259	61.064	1.815	6.259	61.064	6.506	22.435	46.445
3	1.585	5.466	66.530	1.585	5.466	66.530	5.825	20.085	66.530

Extraction Method: Principal Component Analysis.

Table 6. Factor reliability summary for all OH constructs

Dimension	Cronbach Alpha	AVE	CR
Change capacity	0.930	0.566	0.929
Competitive Advantage	0.923	0.636	0.924
Goal Alignment	0.881	0.594	0.946

8.5 Construct Validity

Further to the EFA, to check the validity of each construct in the variable, OH, a confirmatory factor analysis using AMOS18 was carried out. The measurement model of OH was subjected to the construct validity indices for absolute fit, incremental fit and parsimonious fit. Model specification establishes a model that captures and measures all the projected correlations among items and their respective constructs (MacKenzie et al., 2011). In

the proposed model, all the constructs are built upon the reflective indicators whose dimensions comprise manifestations of the constructs, such that changing or deleting any may not change the intended meaning of the construct (MacKenzie et al., 2011). It is necessary to understand the elements of the construct dimensionality so as to adapt appropriate evaluation methods to improve validity. The concept of organisational health as equilibrium of multiple dimensions in the present study suggests that, OH should be modelled as a first-order, reflective construct. Consistent with prior literature, all variables in the propose research model are constructed reflectively.

Figure 3 gives the measurement indices to check all the values pertaining to the construct validity. Wherever the items showed measurement index (MI) value of 15 and above were paired to reduce the redundancy (Zainuddin, 2012). Change capacity dimension (OH1), had one such pair. All the items in OH1 indicated factor loading of 0.6 above. In the dimension competitive advantage (OH2), all the items scored MI less than 15 and measured factor loadings of 0.60 and above. OH3 (goal alignment) measured all the items with higher factor loadings; with no item measuring MI more than 15. Squared multiple correlations (R^2) of all the items in the model measured more than 0.4.
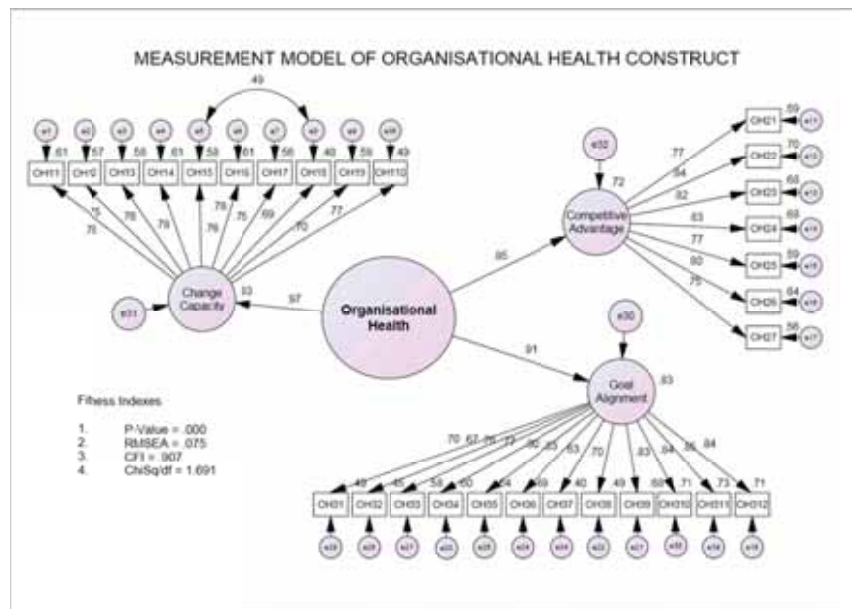
Figure 3. OH measurement model

Fitness indices for the measurement model in CFA for organisational health as represented in AMOS graphic is given in Table 7.

Table 7. Model fit summary produced by AMOS

Category	Index	Required Index Level	Actual Index Value	Literature
Absolute Fit	RMSEA	RMSEA < 0.08	0.075	Browne and Cudeck (1993)
Incremental Fit	CFI	CFI > 0.90	0.907	Bentler (1990)
Parsimonious Fit	ChiSq/df	Chi square / df < 5.0	1.691	Marsh and Hocevar (1985)

Table 8. Correlation coefficient among the dimensions

Component	Change Capacity	Competitive Advantage	Goal Alignment
Change Capacity	0.752		
Competitive Advantage	0.371	0.797	
Goal Alignment	0.603	0.331	0.771

Note: Diagonal values are the square root of **AVE** for the construct

9. Instrument Standardisation

In order to establish standardization of the instrument, different pilot groups of telecom organisations from three different countries of Asia were identified. The questionnaire was distributed manually to the supervisory

employees of the identified organisations of Bangladesh (35 employees), Indonesia (42 employees) and Malaysia (46 employees). In all the instances, initial factor analysis showed reliability scores above the acceptable threshold (Cronbach α>0.7) giving reasonable strength to the standardization process of the instrument across Asia.

Table 9. Cronbach α values of four different pilot groups

Dimension	India (N=123)	Indonesia (N=42)	Bangladesh (N=35)	Malaysia (N=46)
Change capacity	0.930	0.871	0.864	0.701
Competitive Advantage	0.923	0.735	0.765	0.808
Goal Alignment	0.881	0.808	0.736	0.800

10. Questionnaire

The instrument finalized after the sorting exercise by the experts has 29 items. Based on the level of response expected from the questions, each item can be categorised into individual, organization and industry. For example, any question pertaining to perception of the individual on the skills, abilities etc. of herself/himself, the item can be classified into individual. Similarly if the question is about the individual's perception about telecom industry in general, the item can be classified into industry. Responses were collected on the various resource constructs, using Likert-type measures. Questions are designed to give a perceptual opinion about a statement within the variable using 7 point scale (where 1 = strongly disagree and 7 = strongly agree). The questionnaire is given in Annexure.

11. Implications

In this study, the researchers have attempted to clear the ambiguity around the OH concept by integrating the hitherto disparate constructs of change capacity, goal alignment and competence advantage. The researchers, through a three month long, rigorous interactive sessions, contacted experts from the Industry and academic fields to collect, collate and aggregate opinions to deduct reasonable inferences to develop an integrated OH model covering holistic perspective of the dimensions of health. The model harmoniously interlocks the undisputed concepts of change, goal alignment and competitive advantage into a singular plane. The researchers believe that this instrument can serve as a ready reckoner for those practitioners who are concerned about changing business situations and the resultant impact of it on their organisation's health. The model will have a positive influence on technology organisations where the waves of change sweep-in at an unprecedented speed.

12. Conclusion

This research study focused on developing an integrated measurement model for OH with clearly defined constructs, which were hitherto observed and measured as independent items as explained in the literature from previous studies. Opinions of industry and academic experts who are closely associated with organisational studies were collected to construct the OH model. From the study, it has been imperative that there are three major constructs of OH such as change capacity, goal alignment and competitive advantage and 29 items. The constructs identified by the expert panel in this study confirm to the OH constructs as explained by Miles (1969). The model developed in this study is also greatly supported by the organisational System Theory conceived and elaborated by a range of scholars (Ashby, 1962; Boulding, 1956; Churchman, 1968) and the Homeostasis model advocated by Chopra (2013).

When a firm delivers all its committed targets to the stakeholders, it is said to have performed well. There are several key indicators to rightfully measure performance such as Profit after Tax, Return on Capital Employed (ROCE), dividend to shareholders, market capitalization etc. To sustain health over a period of time in the business space, an organisation needs to continually realign with market realities, quickly renew its internal energy sources and execute with precision, more importantly faster than its closest competition. The essential elements of health are different according to the business context the organisation operates in. However, the fundamental organisational capabilities like internal competence strength, collective execution capabilities, change capacity, culture, speed to market and external orientation skills etc. augment the strength of health parameters substantially. Through the journeys of profitable organisations, it has been empirically proven that the intensity of impact the Change, Goal Alignment and Competence can bring in intrinsic health to the organisations.

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Appendix

Questionnaire

Sl No	Code	Question	Domain
1	OH11	Management demonstrates by action, a balance between short and long term objectives	Org
2	OH12	In my company, the management backs up words with action	Org
3	OH13	I feel comfortable voicing my opinion even if it is different from that of my supervisor	Org
4	OH14	My supervisor responds to ideas and suggestions on how to improve the way work is done.	Org
5	OH15	I am encouraged to take reasonable risk to solve quality problems in our work.	Org
6	OH16	In my department, all levels of employees work well together.	Org
7	OH17	Management encourages team work among departments to solve common problems.	Org
8	OH18	In my organisation, there is a strong agreement and a belief in our corporate strategies	Org
9	OH19	I have authority to solve work related problems in timely manner.	Self
10	OH110	In my company, views of employees from different cultures and backgrounds are valued.	Org
11	OH21	Our competences are not easily imitable by our competition	Org
12	OH22	The measures used in my organisation support and enable the accomplishment of our business strategies	Org
13	OH23	In my organisation, I have right skills to achieve business strategies	Self
14	OH24	In my organisation, I have right resources and tools to achieve business strategies	Self
15	OH25	I understand my team's objectives and how they contribute to the goals and vision of our company	Self
16	OH26	My company ensures to develop unique telecom competencies	Org
17	OH27	I have received sufficient training to do my job well.	Self
18	OH31	Our customers would say that overall quality of work done by our team is very good.	Org
19	OH32	I have opportunity to take decision required to exceed customer expectation.	Self
20	OH33	My organisation structure facilitates accomplishment of our business strategies	Org
21	OH34	My company is well equipped to meet the challenges of competition in next few years	Org
22	OH35	I believe that our company is delivering the promises to the shareholders	Org
23	OH36	My company's business targets are deeply meaningful	Org
24	OH37	I have clear understanding of my company's business strategies	Org
25	OH38	I am very clear on my goals and their linkage to the team strategies	Org
26	OH39	My roles and responsibilities are every clear	Org
27	OH310	I am very clear on my team's business strategies	Org
28	OH311	Communication from the management is open and honest.	Org
29	OH312	My company has adequate communication meetings.	Org

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Transmission of Global Food Prices to Domestic Prices: Evidence from Sri Lanka

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Abstract

Food prices have been increasing sharply since 2003. In the globalized world, the transmission of global food price increases to domestic market determines the decision of economic agents and policy makers of a domestic economy. The recent growth of global food prices affects the welfare of poor consumers and producers. In Sri Lanka, large segment of the population spends more than 50 percent of their income on food. Thus, this study investigates and assesses how international food price surge affects domestic inflation process in Sri Lanka. The empirical statistical results are derived by using a battery of parametric and non-parametric econometric techniques using monthly data of price series for the period from 2003M1 to 2013M12. The co-integration analysis results confirm that global food prices, domestic prices are co-integrated. Therefore, Sri Lankan government needs to develop a safety net program for the poor and a longer term poverty reduction strategy. Policy attention needs to shift towards efforts to increase food production. The results of this study have various policy implications for monetary policy, food and agricultural policy and trade policy for Sri Lanka.

Keywords: co-integration, error correction model, food price inflation, global price transmission

1. Introduction

Following globalization, the interdependency of each country has increased. Over the past few decades, many developing and emerging countries have become more integrated into the global economy. International trade, food commodities in particular, has become more important to the most of these countries. Global commodity prices have recently at least since 2003 exhibited high and increasing with highly volatile and persistent movements. The Food and Agriculture Organization (FAO)-Global Information Early Warning System (GIEWS) shows the up to date global food price information. There were unexpected price spikes in 2007/08 and 2010 for major global food commodities. It is now widely believed that food price shocks pass-through, at least partially, to final consumer prices so that global food prices and domestic prices co-integrated. Even though domestic policies affect prices, they cannot prevent the covariations of domestic prices with world prices in the long run (Mundlak & Larson, 1992). United Nations Economic and Social Commission for Asia and the Pacific (United Nations ESCAP, 2011) has shown that Sri Lanka is also experiencing unexpected price pressures driven by higher global food prices.

Comparing 2013M12 with 2003M1, world market prices increased by 118.5 percent for food price, 114.8 percent for meat, 194.1 percent for dairy products, 97.6 percent for cereals, and 91 percent oil (FAO, 2013). Domestic price in Sri Lanka increased 153.5 percent for consumer price for all items, 179.8 percent for consumer price for food items (Department of Census and Statistics (DCS), 2013). These recent food commodity price increases have been attributed to a number of different factors such as rapid growth in emerging economies, rising global population, diversion of food production for use in energy products, rising cost of oil, weather shocks, US dollar depreciation, low interest rate in the US, speculative activities, low food stocks and policy measures (Johnson, 2008).

The households who spend more on food in their income, net food buyers, are more affected by increasing food prices. Advanced economies spend the least around 16 percent of their total household expenditure on food (Wu, 2004). The proportion of disposable income spent on food is around 10-15 percent for most Organization for Economic Co-operation (OECD) countries. By contrast, the average household in the developing world spends

roughly half of its total budget on food. Countries in South Asia spend more than 50 percent of their total expenditure on food (Asian Development Bank (ADB), 2011). Poor households in developing countries allocate more than 60 percent of total household expenditure to food. As food expenditure carries large weight in the consumer price index (CPI) of many of the Asian economies including Sri Lanka (Table 1), food price inflation has caused general inflation hence lower their purchasing power.

Table 1. Food weights in consumer price index in Asia 2010

Economy	Share (%)	Economy	Share (%)	Economy	Share (%)
Bangladesh	58.84	Indonesia	36.20	Singapore	22.05
Cambodia	44.78	Korea, Republic	14.04	Sri Lanka	45.50
China	30.20	Malaysia	31.40	Taipei, china	26.08
Hong Kong	26.67	Pakistan	40.34	Thailand	33.01
India	46.19	Philippines	46.58	Vietnam	39.93

Source: ADB, 2011

Thus, food price surge during recent years has aroused intense concern worldwide about the impact on the poor in developing and emerging countries. Generally, emerging and developing economies are more vulnerable to an increase in world commodity prices than developed economies (International Monetary Fund (IMF), 2008).

In a globalized world, high world food prices are transmitted to domestic economy. The impact of high food prices has adverse impact on economy and social sector of many countries, in particular in food importing developing countries, where net buyers are large in number including all urban poor and majority of rural poor. The most (90 percent) of the global poor (income below 1.25$/day) live in countries where domestic food prices respond to international prices (Kalkuhl, 2014). Rising food prices erode the purchasing power of net buyers of food and forcing them to reduce non-food spending and shift to cheaper foods. At the national level, food importing countries face balance-of-payment problem as the cost of food imports rose. In addition, the cost of operating food aid budgets and nutrition programs at the national and international level rise. In some of the countries, high food prices are a very sensitive political issue and led social unrest.

High food prices have increased world hunger (Ivanic & Matin, 2008). The rising prices have increased number of undernourished populations (Mahendra Dev, 2013). Increasing food prices affect the number of people who are under poverty (ESCAP 2011, ADB, 2008a, 2008b, 2011). The impact of the global food price increases has been severe in Sub-Saharan Africa (SSA) which is a net importer of food (Minot, 2011).

Higher food prices may increase food insecurity and undermine population health (Lee, Lim, Lee & Park, 2013). High food prices can have impact on children's health and education and having long term impact on children's health psycho–social well-being (Dercon & Sanchez, 2008). Thus, it may retard human development, and lowering labour productivity of the economy in the long run.

General inflation could rise due to higher food prices. If wages could rise due to food prices, inflation could spiral, causing inflationary expectations with general price level rising further. Food prices have been a key driver of the sharp rises and falls in general inflation in recent years (Ferrucci, Rodriguez, & Onorante, 2010). Hence, high and increasing food prices pose a significant policy challenges for developing and emerging countries where households spend a larger share of their income on food (Kelbore, 2013).

South Asia that includes Sri Lanka is the vulnerable region to food price inflation. According to International Food Policy Research Institute (IFRI), South Asia and SSA are the regions with highest Global Hunger Index (GHI) scores and the highest poverty rates (IFRI, 2008, 2013). Sri Lanka's rank based on 2013 GHI scores (GHI=15) comes under serious category.

Sri Lanka is a small open and dependent economy that is a price taker in world markets. Food sectors depend on imports. Sri Lanka is highly vulnerable to shocks in the international food prices since the food consumption basket has large food import component and large number of households spend large share of their income on food. The share of food and beverages imports expenditure of total consumer goods imports expenditure is around 50 percent for the period of 2009-2012 (Central Bank of Sri Lanka (CBSL), 2013). Food expenditure share in Colombo CPI which is computed only based on information from the Colombo municipal council in the Colombo district (out of 25 districts) in Sri Lanka is 41 percent in 2006. The food component counts around 67 percent in the Wholesale Price Index. However, food has largest weight more than 50 percent in the average household's consumption basket which is based on all districts in Sri Lanka (DCS, 2012). More than 80 percent of total population lives in rural and estate sectors in Sri Lanka (DCS, 2012). Large segment of the population in

Sri Lanka, mostly from rural and estate sectors spends more than 50 percent (in the range of 50 to 70 percent) of their income on food. Many households depend on agricultural commodities for their income and food consumption. They are net buyers of staple foods. Thus average food inflation became a large source of inflation in Sri Lanka. Food and Non-alcoholic beverages contribution to the annual average overall inflation has higher percentages in Sri Lanka (Table 2).

Table 2. Contribution of Food and Non-alcoholic beverages to General Inflation increases

Year	Contribution to annual average increases (%)
2010	5.8
2011	59.9
2012	29.3
2013	52.0

Source: Annual Reports 2013, Central Bank, Sri Lanka.

The main food items of imports (percent of total supply) in Sri Lanka are wheat (100 percent), sugar (90 percent), milk powder (85 percent), pulses and nuts (77 percent), meat, maize, big onion (50 percent), potato, Maldives' fish and rice, whereas wheat and maize are used as intermediate goods. Food and beverages, wheat and maize account approximately in the range of 9-12 percent of total import expenditure in Sri Lanka.

Figure 1 shows the evolution of food price in world and various consumer and producer prices in Sri Lanka. The features of these price dynamics are (i) food prices are more volatile, since 2007, there is sharp increases and high volatility in global food prices, (ii) upward movement and global food price and domestic food price are co-moved. (iii) first moment (mean) and second moment (volatility) of these price series distributions change over time. These prices may have random walk component and a stationary component, $p_t = w_t + z_t$, (Stock & Watson, 1988). Thus, these prices are made up of a stochastic trend and stationary deviations around trend.
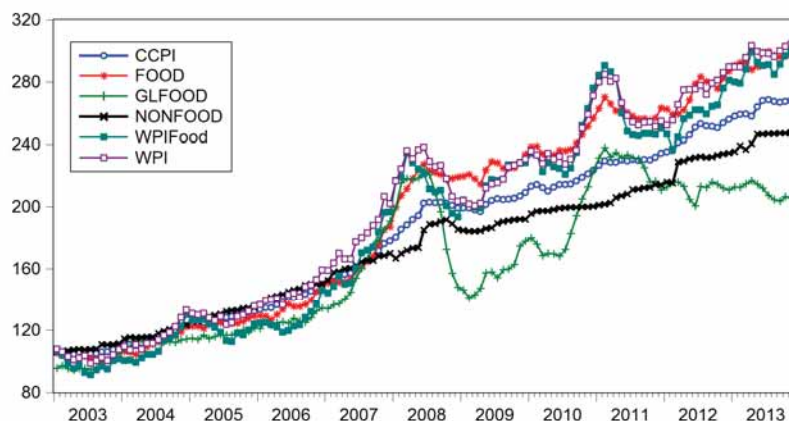
Figure 1. Evolution of domestic and world food price series

Source: Author's calculation using FAO Price Index data and all domestic price indices from Census and Statistics Department, Sri Lanka, 2013

Note: CCPI=Colombo Consumer Price Index, CCFPI=Colombo Consumer Food Price Index, GFPI= Global Food Price Index, WFPI=Wholesale Food Price Index, WPI=Wholesale Price Index

Given the structure of the Sri Lankan economy, food prices have a significant inter linkages between global food prices and domestic prices. The inter relationship between world food prices and domestic prices provides insights into marketing efficiency, as well as consumer and producer welfare.

To our knowledge, that there remain scarce in-depth in terms of econometric analysis with little systematic empirical evidence on the global food price transmission to domestic prices in Sri Lanka. ADB, FAO, World Bank publications show that there are large amount of literature on this issue for Africa, Latin America, Advanced economies, developing Asia consisting Pakistan, India, Vietnam, Philippine and Bangladesh. Carrasco and Mukhopadhyay (2012) have studied food price escalation in South Asia including Sri Lanka. However, this

study has not focused on global food price transmission issue. There are no comprehensive studies about the global food price transmission for Sri Lanka. This study intends to fill this gap in the literature by providing a comprehensive study of global food price transmission to domestic prices in Sri Lanka.

This study attempts to answer the following questions: i) to what extent world food prices pass-through domestic prices in Sri Lanka? ii) is there long run relationship between global food price and domestic prices in Sri Lanka?. The extent of transmission is a fundamental and important issue because it is domestic prices that affect the welfare of poor consumers; hence it has important implications for economic welfare.

The objective of this study is to analyse in-depth the pass-through effects of international food prices to producer and consumer prices in the domestic inflation dynamics in Sri Lanka for the periods of 2003M1-2013M12. In particular, this investigation will show the extent and speed of transmission of international food price changes to the domestic prices in Sri Lanka. This study will uncover a robust empirical relationship between GFPI and domestic prices.

The structure of the paper is as follows. Section 2 briefly reviews the literature. Section 3 describes data and methodology of the study. Section 4 discusses the empirical results obtained from various econometric techniques applied in this study and the final section concludes, and gives some recommendations from the results obtained.

2. Literature Review

In this section, we briefly overview the existing works about global price transmission to domestic prices. In the literature, quantitative results are not directly comparable due to differences in data sources, sample periods, time frequencies, specification of the employed model, estimation methodologies, analyzed goods, countries under study. However, these studies provide a qualitative indication of broad trends and regularities which is useful for the new research.

The literature in the area of food price transmission shows a group of stylized facts (SF), (i) the food price pass through varies largely depending on the product category, (ii) the food price pass through differs across countries, (iii) the size of food price pass through has changed over time, (iv) the pass through to producer prices is higher than to consumer prices, (v) the food price pass through is asymmetric.

In recent years, there have been a large number of studies that have investigated the transmission of world food prices to domestic economy. For some examples: Myers (1992), Minot (2009), Shawarby and Selim (2012), Jalil and Tamayo (2011), Van Duyne (1982), Albers, Ronald and MargaPeeters (2011) and El-Sakka et al. (2005), Rapsomanikis (2011), Lee and Park (2013), Mudlak and Larson (1992), Ardeni (1989), Hazell, Jaramillo and Williamson (1990), Dawe (2008, 2009). Imai, Gaiha and Thapa (2008), Morriset (1998) and Conforti (2004).

Most of them found transmission was incomplete, and some are asymmetric. Further, global food price is significantly contributing to domestic inflation. Most of the study area was African countries. Some examples are Abdulai (2000) for Ghana, Rashid (2004) for Uganda, Lutz, Kuiper and Van Tilburg (2006) for Benin, Negassa and Meyers (2007) for Ethiopia, Van Campenhout (2007) for Tanzania, Rashhid (2011) for Ethiopia and Kelbore (2013) for Ethiopia. However, there were few studies about specific country studies about this issue in South Asia, in particular Sri Lanka.

3. Data and Methodology

In this section we present the approach in detecting global food price transmission to domestic prices in Sri Lanka. This study adopts a simple model based on the Law of One Price (LOP) to express the relationship between global food prices and domestic prices and test the transmission effect.

3.1 Price Transmission Mechanism

Price transmission is when a change in one price causes another price to change. This study concentrates on the spatial price (horizontal) transmission from global markets to domestic market prices of Sri Lanka. The transmission mechanism of global food prices is the way in which food price changes affect economic activity and inflation through several channels. This research on the transmission mechanism seeks to understand how these channels work in the context of dynamic, stochastic situation.

3.2 Analytical Framework

The analytical framework draws on the LOP (Ardeni, 1989). Price changes originating from the foreign sector can be divided into two transmissions mechanisms: one coming from import price in foreign currency terms and the other is price changes from exchange rate changes. Both a depreciation of the currency and an increase in import prices are expected to lead to an increase in the domestic price level.

The LOP is in its strict form as $P_{i,t}^d = ER_t * P_{i,t}^w$ where ER is nominal exchange rate (units of domestic currency per unit of foreign currency: RS/USD), P^w is world (foreign) price, P^d is domestic price for specific (i) commodity, t time period. In statistical terms, ($P_{i,t}^d = ER_t * P_{i,t}^w e^{\varepsilon_t}$), the relationship between the variables can be written in natural log form (depicted in lower case) as

$$p_t^d = \beta_0 + \beta_1 p^w + \beta_2 er_t + \varepsilon_t, \quad \varepsilon_t \sim IID(\mu, \sigma^2) \tag{1}$$

We implicitly assume that ER, is a exogenous variable as Sri Lanka is a price taker. β_1 is the price transmission elasticity. Commodity market arbitrage and purchasing power parity suggest that in the short run, prices of similar products in varied markets might differ. However, arbiters will prevent the various prices from moving too far apart even if the prices are nonstationary. Hence, our empirical model is Equation (1). From this model, we form five models for each domestic price series separately to study the transmission effect of global food prices. As shown in Equation (2)-(6)

$$LCCPI = f(LGFPI, LUSD, D) \tag{2}$$

$$LCCFPI = f(LGFPI, LUSD, D) \tag{3}$$

$$LCCNFPI = f(LGFPI, LUSD, D) \tag{4}$$

$$LWFPI = f(LGFPI, LUSD, D) \tag{5}$$

$$LWPI = f(LGFPI, LUSD, D) \tag{6}$$

The degree of pass-through from international food price changes to domestic price changes is estimated using the above models. First, we characterize the data using exploratory data analysis, contemporaneous correlations, and unit root tests. Then transmission effects are examined using parametric approach; co-integration technique. Graphical displays are used to explore the underlying dynamic behavior of the domestic price series and global food price series and their hidden underlying relationships.

Then, three standard unit-root test techniques, namely, Augmented Dickey Fuller (ADF) test proposed by Dickey and Fuller, (1979, 1981), PP test proposed by Phillips and Perron (1988) and KPSS test proposed by Kwiatkowski, Phillips, Schmidt and Shin (1992) conducted to identify the order of the integration of each price series. Three tests are done in order to get robust results.

After determining the order of the integration of the series, we test for the existence of any long run relationship between domestic prices and global food prices. Theory of co-integration gives a way to reconcile findings of non-stationarity with the possibility of testing relationship among the levels of economic variables (Granger, 1986). In this study, we employed system based reduced rank regression approach proposed by Johansen (1991, 1995) test which has the advantage that both estimation and hypothesis testing are performed in a unified framework (Engle & Granger, 1987).

3.2.1 Cointegration Test - The Johansen's Procedure

Cointegration and error correction models (ECM) provide an analytical tool that can focus price transmission, in testing notions such as completeness, speed, and asymmetry of the relationship between prices (Rapsomanikis, Hallam & Conforti, 2006). Johansen method has several superior properties (Gonzalo, 1994). Thus, we employed Johansen (1988, 1991) and Johansen & Juselius (1990) methods. Johansen's procedure starts with Vector Autoregression (VAR) model then re-parameterized in Vector Error Correction (VECM) form which exhibits co-integrating relations explicitly. If the variables are non-stationary and co-integrated, the adequate method to examine the relations is the VECM (Granger, 1988).

The standard linear vector error correction representation of the VAR model for the K variables has the form as

$$\Delta Y_t = \Pi Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \Psi X_i + \varepsilon_t \tag{7}$$

where Δ is the first difference operator, Y is a (kx1) vector of K potential endogenous variables Π is long run response coefficient matrix, Γ_i is short run coefficient matrix, p is the order of VAR, $\varepsilon_t \sim IID(0, \Sigma)$. The rank of Π is denoted by r and decided based on the statistical significance of its eigenvalues. The rank of a matrix is equal to the number of its characteristics roots (eigenvalues (λ_i)). If the rank, r, is 0<r<k then Π can be partitioned as $\Pi = \alpha \beta'$. Now the error correction model becomes as

$$\Delta Y_t = \alpha \beta' Y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \Psi X_i + \varepsilon_t \tag{8}$$

where β coefficients provide the long run response. The elements of α matrix measure the speed of adjustments to the long run equilibrium. The sign and magnitude of the coefficient of the error correction term (ECT) helps in figuring out the short term adjustment process. If the value of the coefficient falls between -1 and 0, the ECT tends to cause the dependent variable to converge monotonically to its long run equilibrium time path. A positive value of the coefficients of the ECT or a value smaller than (-2) will cause dependent variable to diverge. If the value is between -1and -2, then the ECT will produce dampened fluctuations in the dependent variable about its equilibrium route (Alam & Quazi, 2003). A larger value α_i indicates a faster convergence toward long run equilibrium in cases of short run deviations from long run equilibrium. The estimates of α_i are important to the policy makers and investors.

The appropriate lag length for the co-integration test was selected based on Akaike's Information Criterion (AIC), the Schwarz Information Criterion (SIC) and Hannan-Quinn Information Criterion (HIC). The cointegration test Johansen approach is based on two different likelihood ratio (LR) statistics which are:

The trace test statistic,

$$\lambda_{trace}(r) = -T \sum_{i=r+1}^{n} \ln(1 - \hat{\lambda}_i) \tag{9}$$

The maximal eigenvalue Statistics,

$$\lambda_{max}(r, r+1) = -T \ln(1 - \hat{\lambda}_{r+1}) \tag{10}$$

where r is the number of co-integration vectors. These statistics are used to assess the number of co-integrating relationships among the variables in this analysis. Critical values for both statistics are provided by Johansen & Juselius (1990). A very useful feature of the Johansen procedure for co-integration is that it allows us to test for restricted forms of the co-integrating vectors. Restrictions are imposed by substituting them into the relevant α or β matrices as appropriate. First step in the Johansen cointegration analysis is to determine the optimal lag. In this study, the optimal number of lags was determined based on model selection criteria such as AIC, HQIC and SIC. The smallest value of these criteria is used to select optimal lag length. Then ECM is estimated.

3.2.2 Impulse Response Function

We use impulse response function (IRF) analysis in this study to provide dynamic simulations of the effects of shocks of known size and duration in global food price on domestic prices. An IRF traces the response of current and future values of the endogenous variables to a one standard deviation shock through the dynamic structure of the VAR. Plots of the IRF over time provide a graphical illustration of the period by period simulation, describing both adjustment path and long run effect on the domestic prices in response to the shock in global food price. Assuming that all series in Y_t are stationary and they can be expressed in a vector moving average (VMA) representation as given below.

$$Y_t = \mu + \theta(L)^{-1} \varepsilon_t \tag{11}$$

$$Y_{t+s} = \sum_{i=0}^{\infty} \Psi \varepsilon_{t+n-i}, \tag{12}$$

The IRF is defines as

$$\{\Psi_n\}_{i,j} = \frac{\partial Y_{i,t+n}}{\partial \varepsilon_{j,t}} \tag{13}$$

The matrix Ψ can be interpreted as that its (i,j) element measures the consequences of a one unit increase in the jth variable's innovation at date t, (ε_{jt}) for the value of the ith variable at time $t+n$ holding all other innovations at all dates constant. The IRF is derived by plotting these elements as a function of s. The advantage of examining impulse response functions is that they show the size of the impact of the shock plus the rate at which the shock dissipates, allowing for interdependencies.

3.3 Data

This study uses monthly data on domestic consumer prices, producer prices and global food prices. The data cover the period of January 2003 to December 2013 which gives a total of 132 observations. The period of 2003 was used as a starting time because international oil, cereal and fertilizer prices and domestic food price started to rise exponentially. Price indices are used as a proxy for the price series. The variables used in this study are defined as in the Table 3.

Table 3. Definition of Variables used in the study

Price Index	Log transformation	Inflation
Colombo Consumer Price Index (CCPI)	$LCCPI_t = \ln(CCPI_t)$	$\pi_{t,cpi} = (LCCPI_t - LCCPI_{-1})*100$
CCPI Food (CCFPI$_t$)	$LCCFPIt = \ln(CCFPIt)$	$\pi_{t,cfpi} = (LCCFPI_t - LCCFP_{-1})*100$
CCPI Non-food (CCNFPIt)	$LCCNFPIt = \ln(CCNFPIt)$	$\pi_{t,cnfpi} = (LCCNFPI_t - LCCNFP_{-1})*100$
Wholesale Price Index (WPIt)	$LWPIt = \ln(WPI)$	$\pi_{t,wpi} = (LWPI_t - LWPI_{-1})*100$
Wholesale Food Price Index (WFPI$_t$)	$LWFPIt = \ln(WFPIt)$	$\pi_{t,wfpi} = (LWFPI_t - LWFPI_{-1})*100$
Global Food Price Index (GFPI$_t$)	$LGFPI_t = \ln(GFPI_t)$	$\pi_{t,Gfpi} = (LGFPI_{f,t} - LGFPI_{f,t-1})*100$

*Note: Food category consists of bread and cereals, meat, fish and sea food, milk, cheese and eggs, oil and fats, fruits, vegetables, sugar, jam, honey, chocolate and confectionary food products. Non-alcoholic beverages, consist of coffee, tea, cocoa, mineral water, soft drinks fruit and vegetable juice.

The variable GFPI is collected from FAO web site and domestic consumer prices CCPI, CPFPI and CCNFPI are collected from DCS, Sri Lanka. WPI, WFPI, Exchange rates (ER) data are collected from the Central Bank, Sri Lanka. The key currency is the US dollar in all external trade in Sri Lanka. Therefore, we use RS/USD exchange rate in this study. Exchange rate variable is assumed to be exogenous.

4. Empirical Results

This section focuses on the analysis of the empirical results from the performed econometric and statistical tests. Our investigation highlights a number of interesting results. Contrary to the existing literature, we find evidence of a statistically and economically significant food price pass-through in Sri Lanka.

4.1 Preliminary Data Analysis-Diagnostic Check

The time series plot in Figure 1shows the evolution of global food price and domestic prices. They move upward closely. Local food price has been higher and increasing trend compared to global food price dynamics. Global food price series are more volatile than domestic price series. However, local food prices in Sri Lanka mirrored global food price movements. Figure 2(b) shows the behavior of various commodity prices in the world market. Figure 2(a) shows the comparison of domestic prices with global food and oil price behavior during the study period. They indicate that domestic prices are co-moved with global food prices. Simple statistical contemporaneous correlation analysis confirms the strong positive correlation between global food price and local food prices (0.94), overall consumer price (0.91), wholesale food price (0.95) wholesale price (0.96).

Global food price inflation has asymmetric effects on domestic price behaviour. Pass-through effects of food price hikes are significantly higher than that of food price falls in Sri Lanka. However, while domestic prices rise in tandem with global food prices they do not tend to decline to the same extent that global food prices do. This may be owing to local market inefficiencies, domestic monopolies, and limited global trade integration.
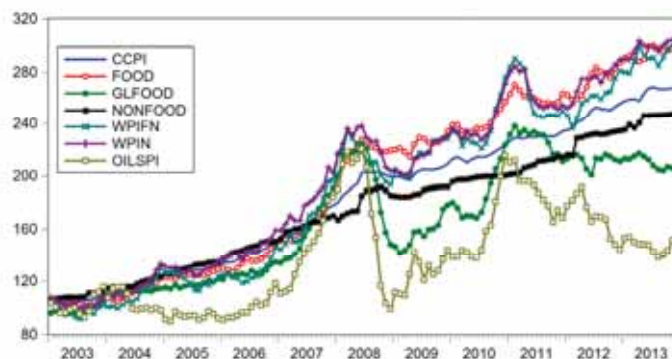

(a)
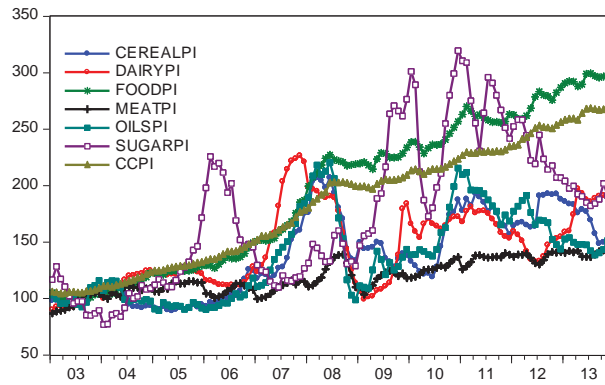
(b)

Figure 2. Food price dynamics in Sri Lanka and World

Source: Data from Department of Census and Statistics, Sri Lanka, FAO website and author[1]'s calculation

Further, we can observe the underlying dynamic inter relationship between global food price and domestic prices from the confidence ellipse graphs in Figure 3. The overall shape of the confidence ellipse indicates that WFPI, CCPFI, CCPI and WPI are highly and positively correlated. The kernel fit indicates that the dynamic relationships are nonlinear and positive.
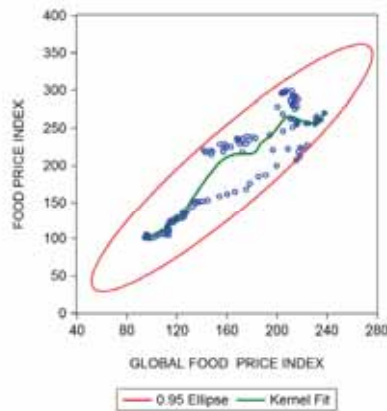
(a)
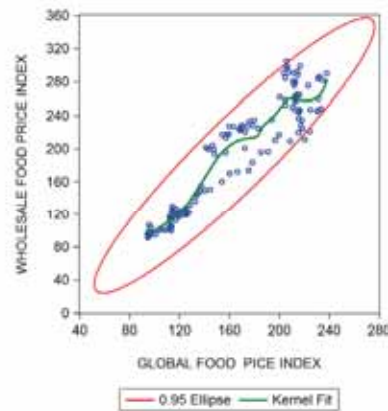
(b)
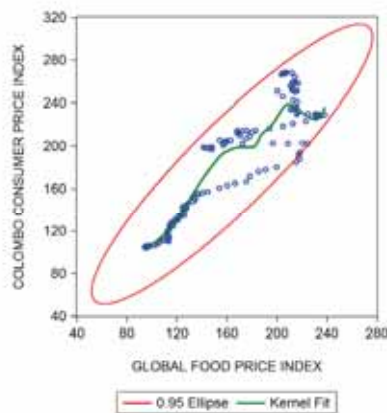
(c)
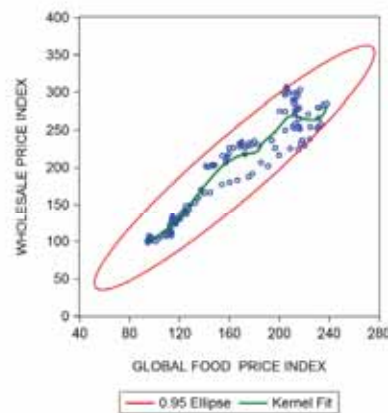
(d)

Figure 3. Inter-relation between Global food price index vs Colombo Consumer Price Iindex, Colombo Consumer Food Price Insex, Wholesale Price Index, Wholesale Food Price Index

Based on the visual inspection of the line graph of each variable, suitable ADF, PP, KPSS unit root tests (none or intercept or intercept with trend) are selected. The order of integration of the food price series is assessed by the ADF test, PP test and the KPSS test. Three unit root tests are done in order to check any contradiction results exist. As all three test results are similar, ADF test results are only reported in the text in Table 4. The results of PP test and KPSS test are not shown to economize on space. Unit root test results show that all these price series in level are non-stationary and I(1). These series in first difference are stationary, I(0). All "P" values of the ADF test statistic for each variable in this study are less than 0.05. The first difference series are strongly mean reverting and I(0). Therefore, all the series in this study are I(1) in level form.

Table 4. ADF Unit root test results for level data

Series	Level with intercept and trend		First Difference with intercept and trend	
	ADF statistic	P value	ADF statistic	P value
LCCPI	-0.8059	0.9617	-7.8894	0.0000
LCCFPI	-1.4666	0.8361	-7.2237	0.0000
LCCNFPI	-1.2503	0.8952	-11.045	0.0000
LGFPI	-3.1000	0.1107	-6.0333	0.0000
LWFPI	-2.2557	0.4546	-8.7396	0.0000
LWPI	-1.5059	0.8229	-10.0361	0.0000
LUSD	-2.7435	0.2213	-7.6999	0.0000
Critical value (5%)	-3.4447		-3.4447	

* Mackinnon (1996) one-side p-value

4.2 Cointegration Tests

This section describes the econometric analysis of the relationship between global food prices and domestic prices in Sri Lanka. Co-integration technique and ECM are used to describe the transmission. Preliminary data analysis showed that all price time series used in this study are non-stationary, I(1). We employed Johansen test to find out the long run relationship between the domestic and world food prices using full information Maximum Likelihood method. First, we estimated appropriate lag length for the co-integration test using lag selection criteria; AIC, SC and HC. For all five models, we selected optimal lag based on the basis of AC, SC, HC. The results show that optimal lag was 2 for all models. However, for WFPI and WPI model, we use one lag in order to satisfy long run equilibrium. Then, we employed co-integration test for all five domestic price models.

The results of the Johansen co-integration test for model 1 are presented in Table 5. Domestic prices are deliberately chosen as the dependent variable (normalized to one) to see the global food price transmission to the domestic prices in Sri Lanka. Using Trace statistic and Maximum Eigenvalue statistic, the sequential procedure is done to find the number of co-integrating relations. Table 5 provides the evidence from both trace and Maximum eigenvalue tests for rank determination for model 1.

Table 5. Johansen and Juselius Co-integration Rank Test for the Model 1

Ho	H_1	Trace Statistic λ_{Trace}	Critical value (5%)	Prob**	H_o	H_1	Max-Eigen Statistic λ_{Max}	Critical Value (5%)	Prob**
None $(r=0)*$	$r \geq 1$	45.816	35.192	0.002*	None $(r=0)*$	r=1	28.696	22.299	0.005*
At most 1 $(r \leq 1)$	$r \geq 2$	17.119	20.261	0.128	At most 1 (r=1)	r=2	12.759	15.892	0.146
At most 2 $(r \leq 2)$	$r \geq 3$	4.359	9.164	0.361	At most 2 (r=2)	r=3	4.359	9.164	0.361

* 5 percent level significant Prob**= Mackinnon –Haug-Michelis(1999) p values

For model 1, the Johansen's test statistics; the Trace statistic and Maximum Eigenvalue statistic given in Table 5 indicate that $H_0 : r = 0$ the null hypothesis is rejected at 5 percent level. These results suggest that there is at

least one co-integration relation among these variables. In the case of other models, we select the number of co-integration vectors using the same procedure. As there exist co-integration among these variables, there exists an error correction mechanism, so we employed VECM and report the results of VECM for each price model in Table 6. The co-integrating vector and speed of adjustment parameters are estimated for characterizing the extent of global food price transmissions and the disequilibrium behavior of prices respectively. The results reveal potential global food price transmission to domestic prices. These results are consistent with the simple correlation analysis discussed above. The first part of Table 6, i.e. 6A reports the long run parameter estimates while second part of the Table 6B reports the results for short run impact multiplier estimates and impact of exogenous variables. According to the results in Table 6A, GFP is co-integrated with all food and non-food domestic prices indicating that a long run relationship exists between GFP and all domestic food price series. As all variables are in natural log form, they indicate price transmission elasticity. They imply that when GFP increase by one percent domestic food price increase by 1.32 percent, overall consumer price increase by 1.10 percent, nonfood price increase by 0.66 percent, wholesale price increase by 1.13 percent and wholesale food price increase by 1.13 percent. Transmission elasticity is higher in magnitude for food prices compared to nonfood price. One interesting point is that global food price transmissions significantly increases the food prices in domestic economy and hence contribute to overall price inflation.

Table 6. Results of VECM -Sri Lanka

A: Long Run Transmission Elasticity				
	LCCPI	LCCFPI	LCCNFPI	LWFPI	LWPI
LGFPI	1.100**	1.324**	0.659**	1.128**	01.125**
	[13.822]	[12.077]	[3.599]	[24.432]	[43.417]
C	0.404	1.366	2.188	-	
B: Short Run Pass-through Effects of Global Food Prices				
	DLCCPI	DLCCFPI	DLCCNFPI	DLWFPI	DLWPI
D(DV(-1))	0.173	0.431	-0.055	0.148	-0.048
	[1.958]	[5.00012]	[-0.645]	[1.644]	[-0.507]
D(DV(-2))	-0.124	-0.239	-0.005	-	-
	[-1.453]	[-2.818]	[-0.066]		
D(LGFPI(-1))	0.068	0.099	0.023	0.265	0.307
	[2.424]*	[1.941]*	[0.649]	[2.727]*	[3.706]*
D(LGFPI(-2))	0.052	0.049	0.066	-	-
	[1.735]	[0.927]	[1.757]		
DUSD	0.123	0.195	0.175	0.379	0.214
	[2.097]*	[1.822]*	[2.264]*	[1.705]*	[1.190]
C: Adjustment Speed				
	LCCPI	LCCFPI	LCCNFPI	LWFPI	LWPI
ECT	-0.016*	-0.029*	-0.015*	-0.011*	-0.016
	[-2.447]	[-3.586]	[-5.155]	[-1.774]	[-2.778]

Note: DV refers dependent variable, ECT refers error correction term, ** significant at 1 percent level

   * Significant at 5 percent level, "t" statistic values in [ ]

In short run, GFP is significantly increases CCPI, CCFPI, WFPI and WPI. Exchange rate depreciation has positive and significant impact on almost all price variables except WPI. The findings of VECM confirm the heterogeneity of price transmission in Sri Lanka. We have found that that price transmission is high for food prices compared to nonfood prices in the short run and log run.

This study finds that the coefficients of the ECT in all the models carry negative sign and statistically significant at 5 percent level. The negative sign indicates that each response variable moves downward towards long run equilibrium time path and that the stability of the corresponding model. The estimates of adjustment coefficients for each domestic prices of CCPI, CFPI, CNFPI, WPFI, and WPI are -0.016, -0.029, -0.015, 0.011, and -0.016, respectively. It implies that every month, the disequilibrium error is corrected in the speed of less than 5 percent. They show that the percentage of the deviation of the actual response variable from its long run equilibrium level (disequilibrium) is corrected each month. These results are consistent with the findings of Quiroz & Soto (1995) and Conforti (2004).

4.3 Impulse Response Function

A positive one standard deviation shock to the global food prices is simulated and the IRFs are presented in Figure 4. The impulse responses of LCCPI indicate the direct inflationary effects due to LGFP increases. CCPI increases faster till up to five months then started to flatter or decline very slowly. A positive shock to global food price (GFPI) has an immediate positive impact on domestic food prices (CCFPI) and CCFPI increase up to five months then declines. Nonfood price is also increase till nine months. This longer period may be due to secondary effects. Every response of domestic prices is all positive at each responsive period. Overall, global food price induce price inflation in Sri Lanka.

Response of LCCPI to LGFPI

Response of LCCFP to LGFPI

(a)

(b)

Response of LCCNFPI to LGFPI

(c)
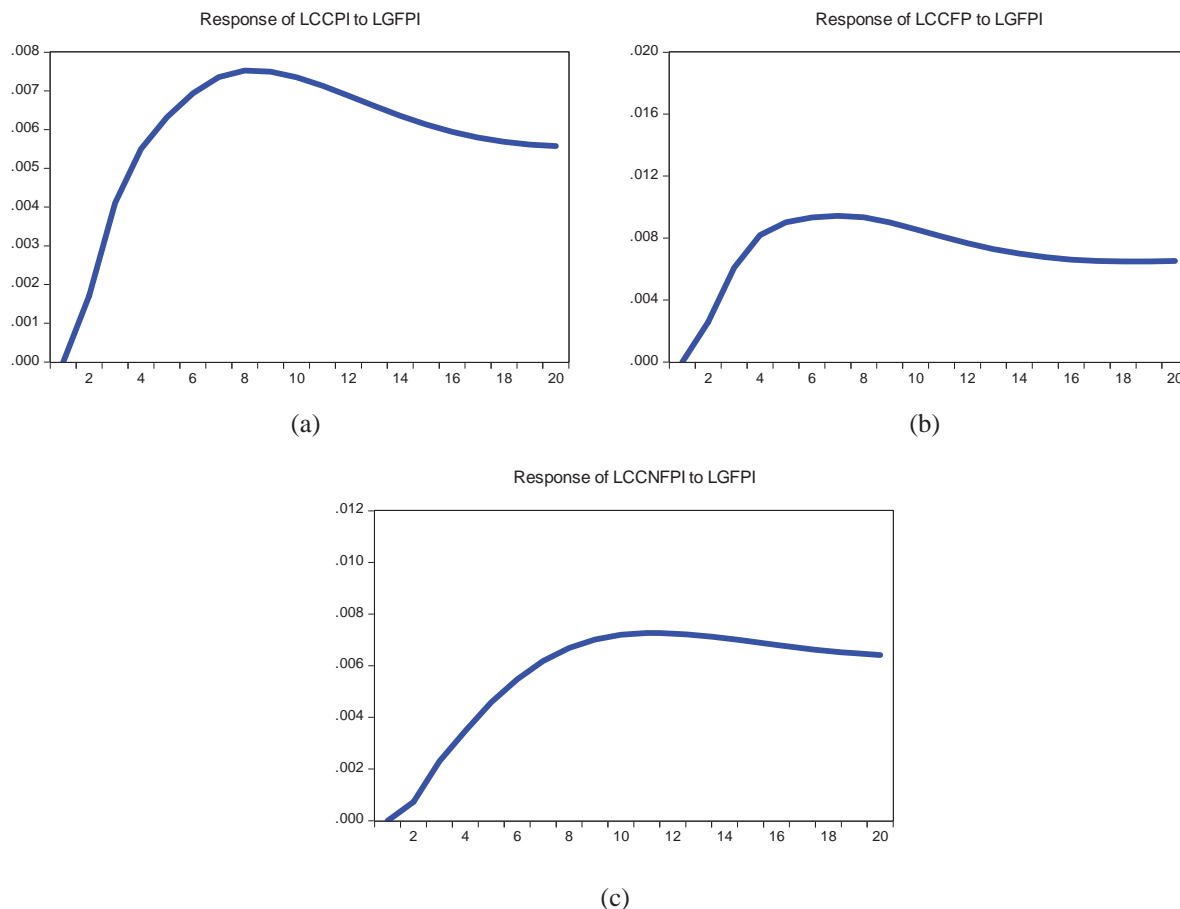
Figure 4. Impulse response of log of Colombo consumer price, log of Colombo consumer food price, log of Colombo consumer non food price to global food price

5. Conclusions and Policy Implications

We find evidence of statistically and economically significant international food price pass-through effects to domestic price inflation dynamics in Sri Lanka. The results of this study show that domestic prices have been co-moved with international food prices. The co-integration test results confirm that global food price cointegrated almost all domestic prices. Global food price does not influence statistically significantly nonfood price inflation in the short run. The increases in global food prices generate increases in headline inflation and domestic food inflation. Therefore, Sri Lankan government needs to develop a safety net program for the poor and a longer term poverty reduction strategy. Policy attention needs to shift toward efforts to increase food production, investing agricultural research, facilitating grain trade, promoting diversification in staples consumption. A few implications of our findings for the monitoring, modeling, and forecasting of food prices in Sri Lanka are worth mentioning. These results may provide valuable information for the food price policy and trade policy planning. Future empirical work in this area should strive for a more comprehensive analysis to investigate the aspects of international food price volatility transmission, nonlinearities and asymmetric price transmission. Thus, more has to be done in terms of short and long term policies to ensure food security and price stabilization.

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Peculiarities of Professional Training of Specialists of Helping Professions

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Abstract

The article reveals the peculiarities of training of specialists of helping professions. Conducted a formative experiment, which reflects the received data. Developed pedagogical conditions of formation of professional competence of specialists of helping professions: special, communicative and personal. Selected pedagogical conditions promoting the formation of professional competence: the course, the ongoing practice during the entire period of study at the University with clarification and elaboration of goals, objectives and content of training as an innovative method of extracurricular work with students of 1st-4th courses with a professional orientation.

Keywords: professional activity, specialists of helping professions, competence, special, communicative, personal, pedagogical conditions, higher education, principles

1. Introduction

One of the priority tasks of higher education is the preparation of a new, flexible, competitive, competent, highly skilled professional with a broad fundamental knowledge, initiative, able to approach creatively the solution of professional problems, able to adapt quickly to the continuously changing requirements of the labour market, capable to perform professional activities effectively and be responsible for its results (Sapargaliyeva, Aralbaeva, Sheryazdanova, & Rysbekov, 2013).

2. The Main Part

The professionalization of helping professionals associated with the formation of the functional specificity of the profession, i.e. the set of functions on the basis of which it is possible to identify a professional position or the professional role of the social pedagogue – psychologist and psychologist. The development of professional training of specialists helping professions in modern conditions is influenced by a number of contradictions that characterize the process of formation of the functional specificity of the profession of social pedagogue – psychologist and psychologist (Markova, 1996).

On the bases of analysis of the sources we found that professional competence is fundamental to the effectiveness and success of professional activity of a specialist, in particular, of specialists of helping professions (Platonova & Platonov, 2011; Sheryazdanova & Aralbaeva, 2012). According to the research of A. K. Markova, we give the definition of the essence of the concept "professional competence" of specialists of helping professions (Markova, 1996).

In our understanding of the professional competence of specialists of helping professions is an integral, dynamic, rapidly evolving characteristic of the subject of professional activity, which consists of a special, personal competence and competence in communication; which is the basis for effective and successful professional career.

In the structure of each component of professional competence, we will identify four interrelated components: motivational, Gnostic, procedural and evaluative-reflexive. This composition is the basis for the definition of criteria, indicators of special, personal competences and competence in communication.

3. Results and Discussion

In our work were identified pedagogical conditions of formation of professional competence of the specialists of helping professions which is included into the organizational-technological unit of the developed model.

As the complex of pedagogical conditions we understand the rational combination of specially created circumstances conducive to the formation of professional competence. The formation of professional competence of specialists of helping professions can be achieved if these conditions are interrelated and mutually complement.

We proposed the following conditions:

- Introduction of the course "Formation of professional competence of specialists of helping professions";

- To conduct continuous practice during the entire period of study at the University with clarification and elaboration of goals, objectives and content;

- To use training professional competence of professionals;

- Conducting of extracurricular work on psychology and pedagogy, with a professional focus.

The complex of identified pedagogical conditions is the psycho-pedagogical support of students –specialists of helping professions during the entire period of study at the University, based on the principles of learner-centered education with the use of innovative technologies, i.e. the organization of educational process on the basis of innovative methods and forms of education.

4. Experiment Methodology

A formative experiment was planned with the aim of experimental verification of the effectiveness of selected pedagogical conditions of formation of professional competence of specialists of helping professions in the educational process of the University. In the process of forming experiment was conducted intermediate test, and the final stage of experimental work on the formation of professional competence of specialists of helping professions in the higher school was the control experiment (control test).

As we have selected two experimental groups 1 and 2 courses (2012-2014 academic year), the implementation of pedagogical conditions were slightly different. Let us denote groups of examinees: the first and second experimental groups 1-4 courses (60 people).

So, for example, in the first course (the first experimental group, 2011-2012 academic year) were implemented the following pedagogical conditions: in the first course (2011-2012 year) - the practice "Introduction into the professional activities" (2nd semester); in the second course (2012-2013 year) were introduced: the course "Formation of professional competence of future specialists of helping professions" (3rd semester), the practice "Methodology of scientific research" (4 semester); in the third course (2013-2014 year) was conducted: "The training of professional competence of specialists of helping professions" (5 semester), psycho-social pedagogical practice and extracurricular work on pedagogy and psychology (6th semester).

Following the second experimental group - 2nd year students (2012-2013 year) was also tested by a formative experiment. Starting from the second course (2012-2013 year), with this group of examinees were conducted the following activities: course "Formation of professional competence of future specialists of helping professions" (3rd semester), the practice "Methodology of scientific research" (4 semester); in the third course (2013-2014 year) were introduced: "the Training of professional competence of specialists of helping professions" (5 semester), psycho-social pedagogical practice (6th semester); in the fourth course (2014-2015 year) was conducted practical training at the pedagogical College (7 semester), extracurricular work in pedagogy and psychology, pre-diploma practice (7th semester).

Intermediate test of the students of first experimental group was held at the end of the second course in the 4th semester (2012-2013 year). In this period was provided the introduction of the higher education component of the curriculum the following pedagogical conditions: the practice "Introduction into the professional activity" (2 semester), course "Formation of professional competence of specialists of helping professions (3rd semester), practice "Methodology of scientific research" (4th semester).

The intermediate test of students of the second experimental group was held at the end of the third course in the 6th semester (2013-2014 year). During this period we have implemented the following pedagogical conditions: the course "Formation of professional competence of future specialists of helping professions" (3rd semester), the practice "Methodology of scientific research" (4th semester), "Training of professional competence of specialists helping professions" (5 semester), psycho-social pedagogical practice (6th semester).
The results of the experimental data presented in Tables 1, 2.

Table 1. Level of formation of the components of each component of professional competence of students of 2nd year 2012-2013 (the first group)

Components of professional competence	components	Level, %							
		High		sufficient		average		Low	
		CG	EG	CG	EG	CG	EG	CG	EG
Special competence	Motivational			26,1	36,4	43,5	45,4	30,4	18,2
	Gnostic					21,7	40,9	78,3	59,1
	Procedural					17,4	36,4	82,6	63,6
	Estimative –reflective					13,0	31,8	87,0	68,2
Communicative competence	Motivational			30,4	40,9	43,5	45,5	26,1	13,6
	Gnostic					26,1	45,5	73,9	54,5
	Procedural					21,7	40,9	78,3	59,1
	Estimative –reflective					17,4	31,8	82,6	68,2
Personal competence	Motivational			30,4	40,9	43,5	40,9	26,1	18,2
	Gnostic					21,7	40,9	78,3	59,1
	Procedural					21,7	36,4	78,3	63,6
	Estimative –reflective					17,4	36,4	82,6	63,6

Table 2. Level of formation of the components of each component of professional competence of students of 3rd course 2013-2014 (second group)

Components of professional competence	Componennt	Level, %							
		high		sufficient		average		Low	
		CG	EG	CG	EG	KG	EG	KG	EG
Special competence	Motivational			31,8	47,8	40,9	43,5	27,3	8,7
	Gnostic			13,6	26,1	50,0	60,9	36,4	13,0
	Procedural			9,1	26,1	50,0	52,2	40,9	21,7
	Estimative –reflective				21,7	45,5	52,2	54,5	26,1
Communicative competence	Motivational			40,9	52,2	36,4	43,5	22,7	4,3
	Gnostic			18,2	30,5	63,6	56,5	18,2	13,0
	Procedural			13,6	26,1	50,0	56,5	36,4	17,4
	Estimative –reflective				26,1	45,5	39,1	54,5	34,8
Personal competence	Motivational			31,8	47,8	45,5	43,5	22,7	8,7
	Gnostic			13,6	30,4	54,5	52,2	31,8	17,4
	Procedural			13,6	26,1	50,0	56,5	36,4	17,4
	Estimative –reflective				21,8	50,0	47,8	50,0	30,4

Thus, on the basis of the analysis of the tables we can conclude that after the implementation of the pedagogical conditions at this formative stage of the experiment the students of the experimental group have had positive changes: there has been sufficient growth and average levels and a reduction in low level. This suggests that pedagogical conditions implemented at this stage of a formative experiment, contribute to the improvement of professional competence.

To determine the level of development of each component of professional competence of helping professions students according to the results of a formative experiment was carried out a control experiment.

Control experiment the students first experimental group was conducted at the end of 3 course, 6 semester (2013-2014 academic year). In this period was provided for the implementation of the following pedagogical conditions: "the Training of professional competence of students helping professions" (5 semester), psycho-social pedagogical practice and extracurricular work in pedagogy and psychology (6th semester).

According to the results of practices in the pedagogical College (7 semester), Department of pedagogy and psychology (8 semester) with students in the second experimental group by the end of 4th year, 7th semester (2014-2015 academic year) was conducted a control experiment.

In Tables 3 and 4 it is reflected a detailed picture of the levels of development of each component of professional competence of students helping professions after the introduction and implementation of pedagogical conditions.

Table 3. Level of formation of the components of each component of professional competence of students of 3rd course 2013-2014 (control experiment, the first group)

Component of prof. comp.	component	level %							
		High		sufficient		average		Low	
		KG	EG	CG	EG	CG	EG	CG	EG
Special competence	Motivational			30,4	45,5	43,5	45,5	26,1	9,0
	Gnostic			8,7	18,2	56,5	63,6	34,8	18,2
	Procedural			8,7	18,2	47,8	59,1	43,5	22,7
	Estimative-reflective				18,2	43,5	50,0	56,5	31,8
Communicative competence	Motivational			34,8	50,0	43,5	45,5	21,7	4,5
	Gnostic			13,0	22,8	60,9	63,6	26,1	13,6
	Procedural			8,7	18,2	52,2	59,1	39,1	22,7
	Estimative – reflective				18,2	43,5	40,9	56,5	40,9
Personal competence	Motivational			30,4	45,5	43,5	45,5	26,1	9,0
	Gnostic			8,7	22,7	60,9	54,6	30,4	22,7
	Procedural			8,7	22,7	56,5	59,1	34,8	18,2
	Estimative-reflective				22,7	47,8	40,9	52,2	36,4

Table 4. Level of formation of the components of each component of professional competence of students of the 4th year 2014-2015 (control experiment, a second group)

Component of prof. comp.	component	level %							
		High		High		high		High	
		KG	KG	KG	KG	KG	KG	KG	KG
Special competence	Motivational		13,0	36,4	52,2	40,9	30,4	22,7	4,4
	Gnostic		8,7	18,2	34,8	59,1	47,8	22,7	8,7
	Procedural		8,7	18,2	34,8	54,5	43,5	27,3	13,0
	Estimative-reflective		8,7	9,1	21,7	50,0	52,2	40,9	17,4
Communicative competence	Motivational		13,0	40,9	56,5	40,9	26,1	18,2	4,4
	Gnostic		13,0	22,7	34,8	59,1	43,5	18,2	8,7
	Procedural		13,0	18,2	30,4	59,1	43,5	22,7	13,1
	Estimative – reflective		8,7	9,1	21,7	50,0	47,8	40,9	21,8
Personal competence	Motivational		17,4	40,9	52,2	40,9	26,1	18,2	4,3
	Gnostic		17,4	18,2	30,4	54,5	43,5	27,3	8,7
	Procedural		13,0	18,2	34,8	59,1	43,5	22,7	8,7
	Estimative-reflective		13,0	9,1	21,7	54,5	43,5	36,4	21,8

After analyzing the data obtained, we can draw the following conclusions: in the second experimental group there was a significant increase of sufficient level and, most importantly, among some of students, we have revealed a high level of development of each component of professional competence. The increase occurred in all components of each component of professional competence. Significantly decreased the number of students with low and average level. The information given above allows us to conclude about the effectiveness of the implementation of the pedagogical conditions that contributed to the formation of professional competence of students of helping professions.

Thus, the data obtained on the results of formative and control experiment show positive dynamics of change in the level of formation of the components of each component of professional competence of students of helping professions, indicating the impact of the embedded pedagogical conditions of formation of professional competence in the preparation of the experimental groups

5. Results of Experiment

To validate the differences in outcomes in the control and experimental groups, we used Pirson's criterion χ^2 (X-square) (Nasledov & Tarasov, 2001).

The selected criterion allows to detect differences in the distribution characteristic when comparing two empirical distributions.

Calculation formula of criterion χ^2 to compare two empirical distributions is the following:

$$\chi^2{}_{\text{эмп}} = \frac{1}{N \cdot M} \cdot \sum_{i=1}^{k} \frac{(N \cdot x_i - M \cdot y_i)^2}{x_i + y_i}$$

where N and M are the number of elements in the first and in the second samples. These numbers can be the same or may be different, i.e. as an element of the sample can also be "zero";

k is the number of bits of evidence (levels highlighted in the study: "low", "average", "sufficient", "high");

x - empirical frequency obtained prior to conducting formative experiment;

y - empirical frequency obtained after conducting a formative experiment.

We will check the validity of the differences of the results of control and experimental groups on all components for each component of professional competence of students of helping professions. In our calculations we used the Excel program, which is part of the package of Microsoft Office programs (table 5).

In the first group consisted of students who had completed 1 to 3 of course, the second from 2 to 4 courses.

Table 5. Calculation of the χ^2 by definition of the differences between experimental and control groups across all components of each component of professional competence

Component of prof. comp.	Component	$\chi^2{}_{\text{эмп}}$			
		First group		Second group	
		CG	EG	CG	EG
Special competence	Motivational	5,4	27,9	3,1	31,0
	Gnostic	81,8	121,9	68,5	108,8
	Procedural	64,5	109,7	70,0	105,8
	Estimative-reflective	42,1	87,9	48,5	91,6
Communicative competence	Motivational	9,7	35,7	5,0	33,4
	Gnostic	94,8	135,3	71,2	94,0
	Procedural	69,6	106,0	78,3	94,4
	Estimative – reflective	39,2	69,1	46,1	80,8
Personal competence	Motivational	6,4	27,9	5,4	30,3
	Gnostic	91,4	109,8	55,2	93,3
	Procedural	78,4	122,0	83,7	115,2
	Estimative-reflective	43,1	75,1	51,6	74,9

Table 5 shows that the change by criterion χ^2 in the experimental group significantly exceeds the change in the control group. The data obtained by calculating indicate significant improvements in the growth of dynamics of the components of professional competence in the experimental group compared with the control group. The value 11,345 corresponds to the beginning area of significance criterion is χ^2. Thus, all values that are greater than this value, say about the significance and validity of the results of the basic experiment.

6. Conclusions

In General, the analysis of the results of a formative experiment suggest that the level of development of all components of each component of professional competence of students of the experimental group increased significantly compared with students in control groups, with low and average levels decreased significantly. This allows to talk about the positive dynamics of changes in levels: increasing high and sufficient levels and decreasing of the average and low levels, which is proof of the effectiveness in formation the pedagogical experiment conditions.

Based on the data above we can conclude about the effectiveness of the implementation of the model of formation of professional competence of teachers-psychologists, organizational and technological unit, which amounted to pedagogical conditions.

Thus, the proposed model of the formation of professional competence of professionals ensures the formation of professional competence. Such specialist of helping professions will faster and easily adapt to professional psycho-pedagogical activity and perform efficiency and success.

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Socio-Economic Factors in Measuring the Demand for Residential Neighbourhood in Nigeria

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Abstract

Socio-economic factor plays an important role in housing decision making through which demand for housing types and residential neighbourhood are made. This study aims at examining the relationship between socio-economic factors and the demand for residential neighbourhood in Nigeria within the context of Ibadan urban cenre. The study utilised the quantitative and qualitative methods. Quantitative approach was employed by the administration of questionnaire among 494 respondents while the qualitative aspect dealt with direct interviews through the use of unstructured questionnaire among 27 participants. Correlation, regression and content analyses were used to evaluate the results of the methods. The findings revealed that, these factors have a great influence on the social status of housing consumers and affect their demand for residential neighbourhood. In conclusion, the demand for residential neighbourhood in Ibadan urban centre has the potential to be explained by the socio-economic status such as; educational level, employment status, official status and monthly income of housing consumers.

Keywords: demand, Ibadan, residential, socio-economics, urban centres

1. Introduction

Socio-economic status of an individual can be used to explain household economic inequality which reflects his/her class, status and economic position in the society and play an important role in enhancing individual household and the whole of the society wellbeing. When searching for residential apartments, individuals and households consider two major criteria namely; the type of housing and the type of residential environment. The demand made by a particular household is guided by social life style and restricted by income and opportunities offered by the housing market (Yosef, 2005).

Housing is considered to be one of the basic necessities of life as it has a profound impact on health, welfare and productivity of individuals (Akintunde, 2008; Agbola & Kassim, 2007). In recent years, housing is not only considered purely as shelter but as a lifestyle which encompasses economic, social and educational needs (Ademiluyi, 2010). It must be able to meet the need and aspiration of the residents as well as contribute to the physical, mental, social wellbeing of the people and provide maximum quiet environment, living and outdoor spaces, privacy, cleanliness, safety and aesthetic satisfaction (Okechukwu, 2009; Israel & Bashiru, 2008; Agbola & Kassim, 2007; Ær⊘, 2006; Olayiwola et al., 2005).

Different individuals make residential demand based on their lifestyle which implies that persons may prefer an area because of the culture or lifestyle it projects (Ær⊘, 2006). Winstanley et al. (2002) argued that "while relevant factors can be isolated and probably ranked in importance to households, it is interconnections between the different factors that shape individual and household decisions". Tatu's (2010) study in Dar es Salaam in Tanzania explored the factors urban residents consider when making residential location decisions. The study reveals that someone's decision to move to an area to live involves thinking about the costs, influence of the location on livelihood, accessibility to public services, shops and school as well as the safety and wellbeing of the family together with whom the neighbours would be (Tatu, 2010).

The aim of this study is to explore the worth and effect of socio-economic factors in the prediction of residential neighbourhood demand in Nigerian urban centre. The research question to achieve this centred on to what extent the demand for residential neighbourhood can be predicted by socio-economic factors. Correlation and

regression analysis were drawn between the housing density and socio-economic factors. The predictors of the demand for the residential neighbourhood were the socio-economic and demographic variables of the sampled respondents.

2. The Study Area

Ibadan is the capital city and administrative headquarters of Oyo state, Nigeria. It is the largest indigenous city in Africa, south of Sahara desert. According to 1963 national census figures, Ibadan was the most populous city in Oyo state with a population of 627,379 (National Population Commission-NPC, 1963). The population of Ibadan reached 1, 835, 302 in 1991 (NPC, 1991) with population percentage increase of 65.82 between 1963 and 1991. Ibadan has reached a population of 2, 559, 853 comprises of eleven local government areas which is 75.49 percentage increase to 1963 population figures and 28.30 percentage increase to 1991 population figures (NPC, 2006). The 2015 and 2020 population of Ibadan was projected using 2006 population at 3% annual population growth rate (NPC, 2006). The formula for the calculation for the population projection was $Pn = Po (1+r/100)^n$ where 'Pn' is the projected population for the target year, 'Po' is the base year population (2006), 'r' is the annual growth rate and 'n' is the year interval between the base year and the year to be projected (Mehta, A.C, 1997). The projected 2015 and 2020 Ibadan population are 3, 340, 028 and 3, 872, 007 with 23.36% and 33.89% increase percentage respectively. The history of Ibadan has many versions to it, but it is generally agreed that there are "three Ibadans". The first Ibadan was formed by Lagelu, an Ife warrior and farmer. The first camp, originally known as "Eba-Odan" which means "by the field" that is, in between the forest and savanah (Ayeni, 1994). The settlement finally grew up to a large settlement and later on, the name changed to "Eba-Odan" and finally changed to Ibadan.

The settlement of the first Ibadan did not last for long and it was destroyed by the Olowu because Ibadan treated Egungun mystery with levity and disdain. This obliged Lagelu to escape with his family and settle at Eleyele hill where the second Ibadan was founded. Lagelu and his people suffered many hardships on this hill and had to feed on snails and on a wild apple called "Oro" which were both found on the hill. Hence, the cognomen of Ibadan says "Ibadan omo a'joro sun, omo aje'gbin yo, omo afi 'karahun fo'ri mu". This means Ibadan people are the people who eat "Oro" for supper, feed on snails and use the shells as bowls for taking corn porridge (Ayeni, 1994). Other people from many parts of Yorubaland joined Lagelu and people on the hill. They grew prosperous and multiplied to the extent that the hill could no longer accommodate them. As a result of this situation, they had to move to the present site which is the "third Ibadan". Ibadan is a nodal nerve centre on which major routes and commercial activities converge. The majority of the area is formed of banded gneisses with significant instances of schifts and quartzites (Tomori, 2007; Aweto, 1994).

3. Literature Review

The socio-economic factors are the product of several key issues in housing. They are discussed in the following section.

3.1 Effects of Urbanisation on Housing

Since 1960s, people began to shift their living to cities. According to Glaeser, Kolko and Saiz, (2001), between 1960 and 1990 the growth rate of movement of household into the city increased whereas the growth rate within the suburbs areas fell. Despite adequate housing is crucial for effective performance of man, a considerable proportion of Nigerian population live in sub-standard and poor housing as well as in deplorable unsanitary residential environments (Onibokun, 1985). The prevailing housing problems in Nigeria include acute housing shortage, overcrowding, unsanitary living conditions, exorbitant rent relative to income, the exploitative tendency of shylock landlords, poor and inadequate social amenities, the high rate of homelessness especially in the urban areas and the high rate of substandard housing both in the rural and urban areas (Agbola, 1998). Many Nigerians especially the newly formed households are unable to afford the lowest priced house in the formal sector housing market thereby leading them to either share with relatives or seek the habitation within the informal extra-legal housing sector within the urban centres (Ikejiofor, 1998; Hoek-Smit & Diamond, 2003).

The government had to consequently intervene, promulgating laws to control, to some extent, the operating forces in the housing sector to bring housing to the reach of a large proportion of the populace (Olatubara, 2007). This ushered in the issue of housing policy with aim of achieving the objectives of obtaining the optimal use of existing housing resources to ensure adequate housing for all households, guide the location of new housing, be responsible for the housing needs of special people and to influence the policies of public authorities in allocating housing (Olatubara, 2007). The effects of urbanisation on housing resulted to high housing demand.

3.1.1 Housing Demand

Housing demand can be explained as the willingness and ability of housing consumer to pay for a particular dwelling depending upon such consumer's incomes, house type, location preferences and local prices (Welsh, 2002) at a particular given time period. The main determinant of the housing demand is household composition while other factors include consumer's income, housing price, cost and availability of credit, consumer preferences or taste and investor preferences (Olatubara, 2007). Housing supply is produced using land, labour and various inputs such as electricity and housing materials. The quantity of the new supply is determined by the cost of these inputs, the price of the existing stock of houses and the technology of production.

The time of housing process, materials cost of housing, unbearable conditions on getting loan from the mortgage banks and government policies have been factors militating against the achievement of the effort of public developers and private developers in bridging the gap between housing supply and demand (Israel and Basiru, 2008). Housing demands enhanced with increase in urban population thereby affected housing availability (Okechukwu, 2009; Agbola & Adegoke, 2007; Tipple, 2001).

Demands for a particular location led to increase in the price of land in that location (Todd, 2007). Naturally, house rents within cities and towns, where there are better amenities and physical conditions command higher financial value (Roback, 1982). Housing supply does not only reflect the ability to build; it also represents the historical stock of the past construction (Edward, 2010). High demand for housing in Ibadan urban centre consequently led to increase in land value.

3.1.2 Land Value

Demand for land within the urban centre will increase and enhance more value whereas its impact would be reduced with low demand for land in the rural area (Edward, 2010; Glaeser & Ward, 2009; Nelson et al., 2007; Jun, 2006). It can therefore be deduced that high demand for land has a direct correlation relationship with high rise in land price and vice-versa. Other factors such as economic factors, infrastructure provision and consumer preferences had influence on land price. Availability of basic amenities or easy accessibility to urban facilities and services within urban centres has great influence on the land price (Gurran et al., 2008).

Regulatory measures, high continuous demand for housing, purchasing power, population and economic growth led to limited supply of urban land (DSE, 2003; Birrell & Healy, 2003; Birrell et al., 2005). Others factors include flexible lending policies, housing subsidies and Unlimited Urban Growth Boundaries (UGB). They also contributed greatly to the rise in land value and construction price which eventually affect the housing supply.

The promulgation of the 1978 land use decree was meant to solve the problems of unsmooth, fraudulent practices and costly transfer of land to two or more different people (Agbola, 1987) through which the entire land within a state is invested into the hands of state governors to hold in trust for the people in the state. It is expected of prospective home owners to apply for the use of the land at a reasonable price. However, the implementation of this decree was faulty and has not achieved its aim but contributed to the inadequate and unaffordable housing in most of our urban centres (Arimah, 1997; Agbola, 1987).

Adoption of the national sites and services program by increasing supply of serviced plots at affordable cost in 1986 by Federal Government as strategies for housing delivery (Onu & Onu, 2012) was mainly to create easy access to land to enhance home ownership. The goals of the programme were to provide serviced land for housing development and commercial activities in a well decent and planned environment to eliminate obstacles to housing supply and provide solutions to private and public sectors as well as individual in housing delivery system. However, only about 20, 000 plots were allocated in about 20 states of the federation since the commencement of the program in 1986 (Onu & Onu, 2012; Ajanlekoko, 2001). As a result of increase in land value in Ibadan urban centre which made the land price to be too high necessitates transaction between the land owners and the prospective buyers.

3.1.3 Housing Transaction Costs

Quigley (2003) submits that housing attracts high transaction costs relating to its exchange, in terms of searching. These transaction costs include legal and adjustment costs. Housing speculations led to price increase of housing (Gregory et al., 2009). When the residential housing in an area is commercialised, there will be intermediary between the housing producer and housing consumer which will lead to the increase in housing price. The interaction between the housing producer and consumer are seen with the prices being offered by the consumers and the price being agreed by the producers before a final transaction is made (Ursula, 2002).

Agbola and Adegoke (2007) considered housing as an expensive economic product which requires large capital outlay. Housing production has always been posing problems to majority of Nigerians due to unequal

distribution of income. In the study conducted in Makurdi metropolis, Benue state in Nigeria by Onu and Onu (2012), they looked at the challenges confronting low income earners in urban residential housing areas and discovered that more than half of their respondents (57.8%) earn less than N10, 000.00 (US$62.50) a month which made it difficult for them to afford decent house. They were of opinion that carefully planned land for low income housing should be allocated to the low income earners.

3.2 Household Socio-Economic Status

Household plays a significant role in decision making and its economics status determines household level of living standard. Household economic status, social status, education, official status, marital status, nativity and years of being in Ibadan can be used to analyse inequality in economic status among different households. Family socio-economic status describes family's position, rank, class, status or economic position in a society (Mehdi et al., 2009). This is based upon the concepts of allocating scarce and limited resources to various activities that are related with the progress, protection and conservation (Mehdi et al., 2009).

Chuma and Molyneux (2009) discovered differences between rural and urban family economic status classification using expenditure and asset indices. Household management helps individuals and families to improve their quality of life through effective decision making (Key & Firebaugh, 1989). Consumer's cultural and social life with the behaviour of investor play an important role in the development of residential lofts according to Zukin's (1988) examination of loft living in New York. In New York, poor people live disproportionately in central cities because of their socio-economic status and they can survive without having a car (Glaeser, Kahn, & Rappaport, 2008). Immobility of housing contributes to the shortage of housing supply in our urban centres (Okechukwu, 2009).

Okechukwu (2009) argued that; "the filtering process is another market solution that could ensure the gradual release of adequate housing for lower income households by the move of the affluence households when they vacate their housing for their better and befitting ones". If the market is responding towards meeting the housing need of the high income class through the provision of more decent and costly housing unit, there would later be movement of the whole classes of people of both low and middle income groups moving into better and more decent housing. This will however depends on housing affordability.

3.2.1 Housing Affordability

Housing affordability is an issue to be considered in housing supply and demand. The word afford can be defined as being able to pay without incurring financial difficulties (Collins Dictionary). New Zealand Institute of Economic Research (2005) defined Housing affordability as a difficult matter of housing costs and income levels but it entails people's ability to obtain housing and to stay in it. Household's income, taste and price of housing are parts of determinants that need to be considered if housing is going to be affordable by the prospective housing consumer (Olatubara, 2007).

The chartered Institute of Housing (1992) as quoted in Onu and Onu (2012) identifies rent levels, household income and eligibility of households for housing benefits to determine whether accommodation is affordable or not. In the United States and Canada, a commonly accepted guideline for housing affordability is housing cost that does not exceed 30% of a household's gross income (Onu, 2012). When the monthly carrying costs of a home exceed 30.35% of household income, the housing is considered unaffordable for that household.

3.3 Summary

Since migration is a consequential effect of urbanisation and money plays a big role in housing, several socio-economic variables can act as predictors to housing demand and residential neighbourhood. For the purpose of achieving the aim of this study, density of the residential neighbourhood has being identified as the dependent variables while the socio-economic factors of the respondents such as marital status, income earning group, educational level, employment status, official status, respondent's nativity, estimated monthly income and years living in Ibadan as the independent variables i.e. they are the predictors.

4. Method

This study utilized extensive quantitative and qualitative research methods. Quantitative approaches were employed through the administration of questionnaire among 494 respondents. The questions within the questionnaire included demographic, socioeconomic questions that related to the respondents' households and the demand for their residential neighbourhood.

4.1 Sampling Techniques

The study employs stratified conditional random sampling. This is the technique of sampling through which the probability of a unit of a population being sampled depends on the values of the exploratory variables that can lead to consistent and efficient estimates (Guido & Tony, 1996). The study focussed on five local government areas within Ibadan urban centre. Each of the local government areas is sub-divided into political wards and each of the political wards is sub-divided into unit count area. The unit count areas were also identified according to the low, medium and high density areas. The number of political unit count area determined the number of administered questionnaires in each of the political wards.

4.2 Participants

Two sets of participants included those that were involved in direct interview with unstructured questionnaire and the general public that constituted the households or housing consumers within the five local government areas. The first set of participants were 27 comprising of 5 Directors of Town planning from the 5 local planning authorities, 2 landlord association chairmen, 4 professional town planners, 3 architects, 4 Estate surveyors, 1 bricklayer, 3 carpenters and 5 iron benders. The second set of the participants include 500 respondents within the five local government areas. There were 112 respondents in Ibadan North, 118 respondents in North-East, 57 respondents in North-West, 99 respondents in South-East and 106 respondents in South-West while the remaining 8 respondents served as extra. Through verification of the questionnaires, 6 questionnaires were found incomplete and discarded, remaining 494 questionnaires representing 494 respondents were used in this study.

4.3 Overview of Procedures

At the beginning of this study, 6 enumerators were recruited and trained for the administration of questionnaire. During the training, the author asked the recruited enumerators to demonstrate the administration of questionnaire. This is to see if they really understand the content of the questionnaire to ensure the accurate interpretation of the content and the language of the questionnaire. The performance of the enumerators indicated that they have really understood the content and interpretation of the questionnaire language. The author then assigned all the 6 recruited enumerators to go to the field for the administration of the questionnaires. The administration of the questionnaires was done taking each of the local government one after the other. The interview aspect of the research through semi structured questionnaires was undertaken by the author himself to have accurate knowledge and better understanding of the housing situation in the study area as it relates to the subject matter.

4.4 The Questionnaires

The questionnaire consisted of three sections. Section A is on socio-economic/household survey. It comprised of 17 questions that captured the demographic information of the respondents and socio-economic variables such as sex, age, marital status, income earning group, religion affiliation, educational level, employment status, official status, respondent's nativity, estimated monthly income and years living in Ibadan. Section B is on housing characteristics, housing quality, utilities and amenities. The section is categorised into four parts as housing tenure, construction material of the house, housing utilities and amenities and lastly the house rent. Section C focuses on respondent's evaluation on the house as it relates to house rent, reasons for high house rent, reasons for house preferment, reasons for unsatisfied house, housing condition and characteristics, land price, house demand factors, and planning policy. The sections A and B are closed ended questions with different number of options while the section C was designed based on 5 points Likert scale format. Demographic and socio-economic variables were recorded in the questionnaire because they are assumed to be the predictors (independent variables) of the demand for residential neighbourhood (dependent variables). The socio-economic and demographic variables are shown in Table 1 to presents their means and standard deviations.

4.5 Verification of the Enumerators' Accuracy

Table 1. The socio-economic and demographic characteristics variables of the respondents

	Respondent's Age	Marital Status	Employment Status	Official status	Estimated Monthly Income	Respondent's Native	Years in Ibadan	Educational Level	Income Earners
Mean	3.39	2.14	2.35	.35	2.33	1.43	5.36	2.10	1.17
Std. Deviation	1.182	1.067	.903	.724	1.216	.496	1.137	.600	.486

Source: Author's Survey, 2014

All enumerators were checked for the accuracy in the administration of questionnaires. This was achieved by asking the enumerators to submit the administered questionnaires second day before its commencement. This enabled the authors to observe if there was any mistake in any of the administered questionnaires. Subseqently, the concerned enumerators were asked to return to the field and re-administer the questionnaire where errors were noticed. To further ensure the accuracy of the work, the authors apart from checking the enumerators on field occasionally without giving any notice, participated in the administration of the questionnaires.

4.6 Qualitative Survey/Interview and Analyses

Qualitative data collection is based on direct interview of twenty-seven participants within four categories that include professionals like town planners, architects and estate surveyor; chairmen of the artisans association like bricklayers, carpenters and iron benders; chairmen of the landlord association; and the secretary the local planning authority. There are two questions that were asked from the participants. The first question was related to why people live in area while the second question was related to the categories of people that are living in an area. These data was analysed using content analyses that involved the participants' opinion being illustrated and triangulated on their similarities and differences.

4.7 Statistical Analyses

The Statistical methods through the use of Statistical Package for Social sciences (SPSS) tool were employed to analyse the quantitative data. Correlation and regression analysis were drawn between the socio-economics variables and residential neighbourhood density. The presentation of results was through the use of simple descriptive statistics such as frequency tabulation and finding of percentage while histogram was used for illustration purposes. Simple statistical analysis was employed to explain the socio-economic factors as it affect the individual households' in the demand for residential neighbourhood.

5. Data Analysis, Results and Discussion

Cronbach's alpha was used to access the internal consistent reliability of the survey instrument. The Alpha value result is 0.646 which is considered sufficiently reliable. Hair, Black, Babin, Anderson, and Tatham (2006) and Peter and Denny (2012) claimed that scales with Cronbach's alpha of above 0.60 should be considered sufficiently reliable for an exploratory study such as this. The study also recorded higher respondents of 494 administered questionnaires with KMO value of 0.812 that signifies reliable, adequate and valid survey sampling (Field, 2000).

For the purpose of examining various categories of housing consumers in relation to the demand for residential neighbourhood within the study area, the understanding of their socio-economic background to have thorough knowledge of their social, economic, physical and cultural characteristics is highly important. This assisted in determining the capabilities of different housing consumers as it relates to the affordability of housing as well as their demands for residential neighbourhood. The socio-economic characteristics that were considered include the marital status, income earning group, educational level, employment status, official status, respondent's nativity, estimated monthly income and years living in Ibadan. Out of 500 questionnaires that were administered, 494 respondents completed their questionnaire. The analysis was therefore based on these 494 respondents.

5.1 Demand for Residential Neighbourhood

In addressing the first question, the investigation through interview discovered that there are various factors that contribute to the demand for residential neighbourhood by different housing consumers. These factors include accessibility to other towns such as Abeokuta, Lagos, Ijebu-Ode, expressway and so on, nearness to the place of work, offices of both the state and federal governments such as secretariat, NISER, UCH, location of tertiary institution such as Ibadan polytechnic and University of Ibadan, location of Government Reservation Areas (GRAs), offices, Inflow of people especially among youths from rural area to Ibadan in seeking for higher institution, job opportunity, business opportunity, to improve their economy status, for civilization to know what is going on in the society and nearness to the children school are the factors that make people prefer to reside within the five local government areas of Ibadan urban centre.

Ibadan urban centre is a commercially inclined with the presence of traditional and modern markets such as Oja-oba, Oritamerin, Agbeni, Owode academy, Dugbe, Alesinloye, Adamasingba shopping complex and the presence of central business district (CBD) that aids people to transact their business. The road networks pattern, cheap transport facilities for civil servant to go to their offices, cheap food, the peaceful nature of the city, good environment, favourable topography and security as well as other facilities such as pipe born water, less prone to crime and electricity are other factors that attract inflow of people to the Ibadan urban centre.

On the second question, people living within Ibadan urban centre can be categorized according to their social class and these included low, medium and high income earners occupying high, medium and low density areas respectively. Though, population of low income earners is more than high income earners but every category can be found within the five local government areas. Each of the local government areas exhibits traditional core areas. High income earners are mostly found in low density estate whereas low income earners were found in the inner traditional high density core area within indecent houses that can be termed as traditional old buildings.

Majority of middle income earners decided to live in country side in non-decent and incomplete apartment. The socio-cultural value also plays a significant role in the demand for residential neighbourhood where people attached more value to family ties. This also contribute to the mixture of different socio-economic households living together in a neighbourhood except in GRA where the land and housing value is too high and unaffordable to low and middle income earners.

Correlation analysis drawn between the socio-economics variables indicates that there was strong relationship between Area Density (as measured by the Density scale) and socio-economics variables such as income earners, educational level, employment status, official status and estimated monthly income (as measured by their scale) using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a positive correlation among all these variables. Moreover, there was a strong, positive correlation between income earners and educational level variables ($r = .58$), between income earners and official status ($r = .682$) and between income earners and estimated monthly income ($r = .853$), $n = 494$, $P < .0005$, with high levels of education with high levels of official status, $r = .580$, $n = 494$, $P < .0005$, with high levels of education with high levels of income, $r = .605$, while relationship between employment status and official status is also positive with $r = .630$ and between official status and estimated monthly income, $r = .693$, $n = 494$, $P < .0005$. The relationship between area density and socio-economics variables are indicated in the Table 2. Compare the results of this correlation analysis among the socio-economics variables which determine the social class of different housing consumers indicates that, the social class of housing consumers influences the demand for residential neighbourhood.

Table 2. Correlation matrix analysis

	Area Density	Marital Status	Income Earners	Educational Level	Employment Status	Official status	Respondents' Native	Estimated Monthly Income	Years in Ibadan
Area Density	1								
Marital Status	.065	1							
Income Earners	.271**	.111*	1						
Educational Level	.310**	-.079	**.576****	1					
Employment Status	.171**	.066	.373**	.421**	1				
Official status	.266**	.128**	**.682****	**.580****	**.630****	1			
Respondents' Native	.086	-.032	.138**	.227**	.160**	.161**	1		
Estimated Monthly Income	.287**	.189**	**.853****	**.605****	.422**	**.693****	.157**	1	
Years in Ibadan	-.110*	.195**	-.063	-.191**	-.114*	-.117**	-.399**	-.028	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

At first, five predictors seemed to be significant. This has been elaborated in their relationship as explained above. To further ascertain how well the socio-economic factors is able to predict the demand for residential neighbourhood and which factors among all these factors is the best predictor(s), regression analysis was drawn using stepwise criteria as shown in Table 3. The regression analysis result shows statistical significance of .000 which means $p < .0005$. The implication of this result is that educational levels and estimated monthly incomes are the main predictors of the demand for residential neighbourhood among educational level, official status, estimated monthly income, income earners group and employment status.

Table 3. Regression - variables entered/removeda

Model	Variables Entered	Variables Removed	Method
1	Educational Level		Stepwise (Criteria: Probability-of-F-to-enter <= .010, Probability-of-F-to-remove >= .100).
2	Estimated Monthly Income		Stepwise (Criteria: Probability-of-F-to-enter <= .010, Probability-of-F-to-remove >= .100).

a.   Dependent Variable: Area Density

5.2 Socio-Economic Characteristics of the Respondents

Table 4. Educational attainment level, employment status, official status, estimated monthly income and income earners group of the respondents

Educational Attainment level of the Respondents		
Educational level	Frequency	Percent
No Formal Education	51	10.3
Elementary Education	360	72.9
Graduate	67	13.6
Post Graduate	16	3.2
Total	494	100.0
Employment status of the Respondents		
Employment status	Frequency	Percent
Unemployed	29	05.90
Self Employed	346	70.00
Government Employee	64	13.00
Company Employee	38	07.70
Tertiary Institution/Research Employee	08	01.60
Others	09	01.80
Total	494	100.00
Official Status of the Respondents		
Official Status	Frequency	Percent
Not Applicable	387	78.30
Junior Staff	48	09.70
Senior staff	52	10.50
Management Staff	07	01.40
Total	494	100.00
Estimated Monthly Income of the Respondents		
Estimated Monthly Income	Frequency	Percent
Less than N10, 000.00	105	21.30
N10, 000.00-N30, 000.00	242	49.00
N31, 000.00-N50,000.00	85	17.20
N51, 000.00-N75, 000.00	31	06.30
N76, 000-N90, 000.00	08	01.60
N91, 000-N120, 000.00	20	04.00
Above N120, 000.00	03	00.60
Total	494	100.00
Income Earners Group of the Respondents		
Income Earners	Frequency	Percent
Low Income Earners	432	87.4
Middle Income Earners	39	7.9
High Income Earners	23	4.7
Total	494	100.0

Source: Author's Survey, 2014

The educational attainment levels of the respondents are grouped into four categories. These include no formal education, elementary education which comprises of those that obtained certificates from primary, secondary, modern, grade II and NCE/OND, the third category is graduate educational attainment level while MSc and PhD holders are grouped as Post graduate educational attainment level. Using this categorisation, the respondents that obtained elementary education takes the lion share with 72.90% of the total respondents followed by the graduate respondents with 13.60% while the respondents with post graduate level and no formal education are 3.2% and 10.30% respectively as shown in Table 4.

Majority of the respondents (70.00%) are self-employed. Only 13.00% and 07.70% are government and company employees respectively. 78.30% of the total respondents are not government workers. They engaged themselves in trading and artisan job. As a result of the nature of the category of this people, majority could not afford a decent house for living. Only 01.40% and 10.50% respondents constitute the management and senior staff.

Majority of the respondents (49.00% of the entire sampled respondents) earn between N10, 000.00 and N30, 000.00 monthly followed by those that earn below N10, 000.00 which amount to 21.30 %. In view of this, majority of the respondents are within the low income population. 17.20% and 06.30% earn between N31, 000.00 and N50, 000.00 and between N51, 000.00 and N75, 000.00 respectively.

Those that are earning between N76, 000.00 and N90, 000.00 and between N91, 000.00 and N120, 000.00 are 01.60% and 04.00% respectively while only 0.6% of the respondents are earning above N120, 000.00. In spite of the low income of the respondents, the survey reveals that majority of the respondents are not engaging in any other occupation that can bring them addition income. 93.70% of the respondents have no other source of income while only 06.30% claimed to have additional source of income to their primary employment.

Estimated monthly income is used to group the respondents into Low income, Middle income and High income earners. The respondents that earn below N50, 000.00 are grouped as low income earners, those that earns between N51, 000.00 and N90, 000.00 are grouped as middle income earners while the respondents that earn up to N91 and above are grouped as high income earners. The grouping was made in accordance with Nigerian National Housing Policy (FGN, 2004) definition of income earners. On the basis of this grouping, majority of the respondents are low income earners with 87.40% followed by the middle income earners with 7.90% while the least is high income earners with 4.70% of the total respondents.

Educational level and estimated monthly income reflected in employment and official status as shown in Table 4 and Figure 1.
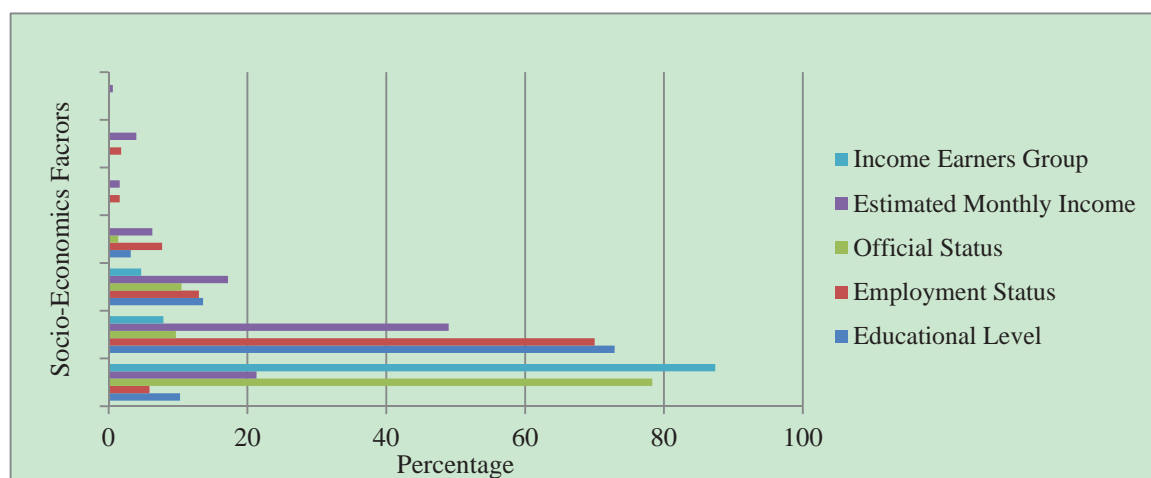
Figure 1. Socio-Economic Variables
Source: Author's Survey, 2014

6. Findings

In this article, quantitative and qualitative approaches were used to explore the influence of socio-economic factors on the demand for residential neighbourhood. The results of the quantitative survey revealed that the educational level of the majority of the respondents are low and this reflects in their income level, employment status, official status and their income group as well as the type of housing and the neighbourhood they live in.

The employment status of the respondents also reflected higher proportion of the respondents that are not government workers and their estimated monthly income as well as their official status. Majority engaged themselves in trading and artisan jobs. The official status of the respondents reflected that greater proportion of the respondents can be categorised as the low income earners. They cannot afford high priced house rents or decent house for living. This suggests the type of housing majority households occupy and the neighbourhood where they reside. Majority could not afford a decent house either as rented or personal house for living. The senior and managerial staffs are the only housing consumers that can afford decent housing for living. This shows the effect of low income of the households on the affordability of decent housing and the type of neighbourhood they are living within the study area. The low income of the majority of the housing consumers dictates the housing preference and the residential neighbourhood.

The educational level and estimated monthly income of the housing consumers are therefore discovered to be the major determinants of the housing preference and demand for residential neighbourhood within Ibadan urban centre. This could be the reason why individuals or families with high educational background avoid residing where people of low educational background or income earners live. Family or individual with high educational background are rational in thinking. Educational development makes people to be conscious of their status or to have sense of status with development of pride which does not allow them to make decision on demand for residential neighbourhood anyhow. In other word, economic and education make people concern about their lifestyle.

There is a strong correlation between the socio-economic indicators and educational level. This shows that high education ensures higher economic status. Economy proves affordability but education adds to the value of lifestyle. Better lifestyle is correlated with low density. But as majority of people belong to low income group with low education, thus not only they cannot afford better lifestyle, but also may not be aware of better lifestyle. Therefore, better education is the key to improve awareness and affordability for a better lifestyle.

The results of qualitative approach performed with twenty-seven participants revealed that people of high social class prefer to live within the low density area in order to associate themselves with enlightened and educated people like themselves. Whereas the low income people with low educational background prefer to live in high density area as a result of their socio-economic status which cannot cope with the high priced housing within the low and decent environment. People of middle level prefer to go to the countryside where the rent can be affordable and the environment is fairly okay to them.

This study concludes that the demand for residential neighbourhood in Nigerian urban centres with particular reference to Ibadan is determined by socio-economics status of housing consumers. The socio-economics factors that strongly relate to the demand for residential neighbourhood include the educational level, employment status, official status and monthly income while respondents' nativity and years of their living in Ibadan are weakly related. However, educational level and estimated monthly income are the major determinants.

This supported the view of Datal and Bonaccio (2010) that consumer's preference and his social support to choose the right alternatives and recommendation is the key to a successful and correct decision. Housing consumers are expected to make a judicious decision particularly when it is of such a high value that can impact their social, psychological and financial life. Housing consumer's social position influences on their abilities to make better decision on housing demand and the demand for residential neighbourhood.

7. Conclusion

This study concludes that the demand for residential neighbourhood in Ibadan urban centre is determined by the socio-economic status of individual household. The findings revealed educational level and estimated monthly income of the housing consumers are the major determinants factors that influence the demand for residential neighbourhood of housing consumers in Ibadan urban centre while others include employment and official status. The nativity, years of living in Ibadan and the socio-cultural value of the respondents has weak influence. In a wider sense, Low and middle income households are more likely to choose residential neighbourhood that are less priced based on their socio-economics status. These categories of housing consumers are mostly found in a slum and indecent environment. Some decided to be living in an uncompleted housing unit which does not enhance their safety and comfort. On the other hand, the high income household prefer to live in a well laid out environment in order to interact with high educated and social class because their socio-economics status.

Many efforts have been made by Nigerian government of different regimes to make provision for decent housing for people; all the strategies being adopted so far have not yielded much fruit due to the fact the socio-economics status of the housing consumers have not been taking into consideration. This study implies that any future planning and development of housing provision for Ibadan and Nigerian urban centres as a whole should

consider consumers' socio-economics status and get housing consumers with different socio-economics status starting involved in the planning, development and implementation of housing program.

It will be possible to achieve appropriate and sustainable housing provision for Nigerian masses and prevent some of the implementation shortcomings of the present public housing programs in Nigeria. In consideration of this aim, the present study is an attempt to move beyond measuring the demand for residential neighbourhood by socio-economics factors in Ibadan urban centre and to apply this framework to different urban centres within Nigeria.

Acknowledgments

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Communication Climate as Predictor of Role Conflict among Subordinate Staff of Salman bin Abdulaziz University

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Abstract

In the fast pace of world communication process, role conflict among employees becomes core concern of the higher officials. Thereby, the present study was an attempt to explore the contribution and relationship of supportive and defensive communication climate on role conflict among subordinate staff of Salman bin Abdulaziz University, Kingdom of Saudi Arabia. The sample included in the study is 368 subordinate staff working in various departments of the university. Communication climate inventory developed by Gibb's (1961) and role conflict scale by Rizzo, et al., (1970) was used to determine the experiences of subordinate staff. Pearson's product-moment correlation and step wise multiple regression analysis were used. The findings of the present investigation revealed that (i) defensive communication climate and their facets were positively related with role conflict, (ii) total defensive communication climate and their two facets (superiority and control) were emerged most dominant predictors of role conflict, (iii) supportive communication climate and their facets were showed positive significant relationship with role conflict, and (iv) empathy emerged as one of the most important predictor of role conflict. The present investigation tempted to provide certain implication and suggestion to add value in the contemporary areas of knowledge.

Keywords: communication, climate, supportive & defensive climate, role conflict

1. Introduction

In the fast pace of present scenario of the technological era, it is not possible to operate/run the business in an effective manner without communication. Therefore, all types of sectors in the business world conducting business and making profits with the help of internal and external communication to deals with different stakeholders. Moreover, it has been seen that organizational communication couldn't be imagined without conflict and role conflict related to the workforce comes across most commonly in the workplace. Researchers has pointed that extreme role conflict is harmful as well as low level conflict is not good for better output.

The easiest way to define "communication is transfer of information from sender to receiver, but implying that the receiver must understands the message in the same way as sender intent to say". However, Richmond et al, (2005) defined "organizational communication is the process by which individuals stimulate meaning in the minds of other individuals by means of verbal or nonverbal messages". As Lesikar et al., (1999) pointed out that "communication is the ingredient which makes organization possible". Moreover, it is necessary to understand communication climate with regard to general feeling and manifested, freedom of expression, openness and sincerity, warmth and sense of acceptance of others, interrelations,, the level of cooperation within the organization and conflict resolution because it is considered as a key determinants of organizational effectiveness. As we know that during the process of communication, the sender reveals about the feelings of his or her attitude, interest, value and manifest to influence others. Adler, et al., (2009) said that "communication climate is a term that refers to the emotional tone of a relationship". The concept can be elaborated in terms of the mode people feel about each other as they carry out their daily activities. Hence, climates can be found in families, friendships and all other types of relationships that have their own societal manner. In early sixties Gibb (1961) identified six characteristics of "supportive communication climate" and six characteristics of "defensive communication climate". He characterized the supportive climate as an environment in which the work is done within the frame of provisionalism, empathy, equality, spontaneity, problem orientation and description and

defensive climate as an environment which comes with evaluation, control, strategy, neutrality, superiority and certainty.

It seems that when the responsibilities of the individual are not rightly or properly defined, role conflict will emerge. Conflicts can be seen in the form of disagreement which indicates issues related to task and interpersonal and emotional issues which lead to conflict. It has been noticed in the organization that conflict sometimes considered as constructive at optimum level or normal range but beyond such point conflict may become dangerous. It can be positive when it defeats organizational sluggishness and makes to development of the organization. Role conflict is defined as "the degree of incongruity or incompatibility of expectations associated with the role". Various researchers defined role conflict in a different ways. Kahn et al., (1964) has been explained role conflict as "the simultaneous occurrence of two or more role pressures so that the compliance with one makes it more difficult to comply with the other". Katz and Kahn (1966) de fined role conflict as "the simultaneous occurrence of two or more sets of pressure such that the compliance with one would make the other more difficult". Rizzo et al., (1970) role conflict can be defined as "The contradicting roles carried out by an individual in an organization". Glissmeyer et al., (1985) explained role conflict as "the level to which a person experiences pressures within one role that is incompatible with pressures that take place within another role". Cooper et al. (2001) is defined role conflict as "reflects incompatible demands on the person (either within a single role or between multiple roles occupied by the individual) which can induce negative emotional reactions due to the perceived inability to be effective on the job". Rahim (2002) said that conflict can be conceptualized as "an interactive process manifested in disagreement, incompatibility, or dissonance between or within entities of social such as organization, group, individual etc". Jones (2007) has been defined role conflict as "the person may be caught between in the crossfire between two supervisors or the needs of two function group". Onyemah (2008) defined role conflict as "a feeling of being torn in multiple directions, unable to find a way to make every role partner satisfied".

2. Review of Literature

Various investigators recognized Gibb's findings a significant factor in the understanding supportive and defensive communication climate (Jablin 1995; Schnake et al., 1990; Proctor & Wilcox, 1993; Moss, 1999; Kassing, 2008; Adler et al., 2009; Devito, 2008; Forward et al., 2011; McCornack, 2009; Hajdasz, 2012; Saba et al., 2012, Czech & Forward, 2013; Alqahtani & Saba, 2013; Kahtani & Allam, 2013).

Weihrich and Koontz (1993) conducted a study and emphasized that in the process of operating an organization, communication is responsible for linking people to achieve common goals. Cheney (1995) emphasized in relation to democratic workplace and focused communicative link between participative decision making, openness, trust and supportiveness. Anene (2006) focused that the success of any organization not depends only on qualified personnel but also on the interaction between the personnel and clientele. Burleson (2009) explains the concept of supportiveness through outcomes of supportive interactions and defined as "verbal and nonverbal behavior produced with the intention of providing assistance to others perceived as needing that aid".

Forward, Czech and Lee (2011) conducted a study to investigate utility of Gibb's (1961) theory of defensive and supportive communication with the help of Costigan and Schmeidler in (1984) in their inspection tool. The results summarized with certain recommendations for interpreting and reconceptualizing the communication climate construct and emphasized that one defensive and supportive action highlighted on task and another supportive and defensive action emphasized on interpersonal relationships.

Hajdasz (2012) identified the Gibb's model of supportive and defensive communication climate and results focused on factors that affect the feelings of communication climate. Further researcher focused that supportive and defensive communication leads to positive and negative communication but negative influence of defensive communication overrides the positive impact of supportive communication on the on the rise communication climate.

Kahtani and Allam (2013) initiated a study among subordinate staff and their findings identified significant relationship between neutrality and other facets of defensive communication climate and correlation between provisionalism, empathy and spontaneity of supportive communication were found

Numerous researchers have been identified the relationships between role ambiguity and role conflict and worker attitude and behavior, incentive structures and rules, social pressures, job dissatisfaction, organizational commitment (Rizzo et al., 1970; Johnson & Graen, 1973; Kahn et al., 1964; Greene & Organ, 1973; Lyons, 1971; Tosi, 1971; Morris et al., 1979; Behrman, et al., 1984; Zahra, 1984; Ismail, 1990; Thomas, 2010; Zakari, 2011; Quarat-ul-ain, 2013). Singh et al., (1994) observed that role conflict can be seen in all Organizations. Jex &

Bliese (1999) has been said that many scholars pointed out role conflict treat same as the probable of work stressors.

Jehn (1997) pointed that individual worked in organizations force to be in conflict, whether knowingly or unknowingly and the influence of conflict is inescapable which can be seen either positive or negative. Robbins and Coulter (2003) suggested that when an individual is confronted by divergent roles faces the feelings of role conflict. Wu and Norman (2006) explored negative relationship between role ambiguity & role conflict and job satisfaction.Lynch (2007) has observed that role conflict occurs when an individual have different expectations at the same time which made them to perform the divergence role. A research initiated by Schaufeli et al. (2009) observed that role conflict is found to be a moderator between job demands & work holism and well-being & job burnout.

Zakari (2011) initiated a study among nursing faculty in Saudi Arabia and highlighted that role conflict was found to be correlated with all the facets of commitment while role ambiguity was seen negatively related to normative and continuance commitment. Judeh (2011) conducted a study to identify the mediating effect of role conflict and role ambiguity on the relationship between organization commitment and employee socialization among telecom communication employees in Jordan. The result of the study revealed that role conflict and role ambiguity has emerged as significant mediators of the relationship between organization commitment and employee socialization.

Celik (2013) has observed that the partial and full mediation of depersonalization and emotional exhaustion consequences from the result of role conflict on the job performance of an individual. Most recently, Zhou, et al. (2014) conducted a study of middle level employees in Chinese local government with an aim to probe the relationship among role ambiguity, role conflict, job stress and role overload. Result of their study revealed that time pressure was found to be significantly related with role overload & role conflict and job stress and job anxiety was observed positively and significantly related with role overload, role ambiguity and role conflict.

3. The Goals of the Research

In the present contemporary world the role conflict, defensive and supportive communication among subordinate is the major concern for the academicians and researchers. On the globe, it is evident that such variables have not been taken into consideration for investigations in a general and Kingdom of Saudi Arabia particularly. Therefore, the researchers initiated a study among subordinate staff working in various departments of Salman bin Abdulaziz University to understand their feelings related to emergence of role conflict, supportive and defensive communication climate. Hence, the following objectives were formulated:

- To explore the relationship and effect of role conflict on the facets of defensive communication climate among subordinate staff of Salman bin Abdulaziz University.
- To determine the predictors of role conflict on the defensive communication climate among subordinate staff.
- To find out the contribution and relationship of role conflict on the facets of supportive communication climate among subordinate staff of Salman bin Abdulaziz University.
- To explore the predictors of role conflict on supportive communication climate among subordinate staff of Salman bin Abdulaziz University.

In the light of the objectives of the present investigation and reviewed literature, the following null hypotheses were formulated and each hypothesis was verified to draw inferences. These hypotheses formulated were as follows:

HO1: There would not be significant relationship between role conflict and defensive communication climate and their facets among subordinate staff.

HO2: There would not be the predictors of role conflict within the facets of defensive communication climate.

HO3: There would not be significant relationship between role conflict and supportive communication climate and their facets among subordinate staff.

HO4: There would not be the predictors of role conflict within the facets of supportive communication climate among subordinate staff of Salman bin Abdulaziz University.

4. Methods

4.1 Sample

The study comprising of 368 subordinate staffs were selected randomly from different departments of Salman bin Abdulaziz University, Kingdom of Saudi Arabia. The sample break up can be seen in the following figure.
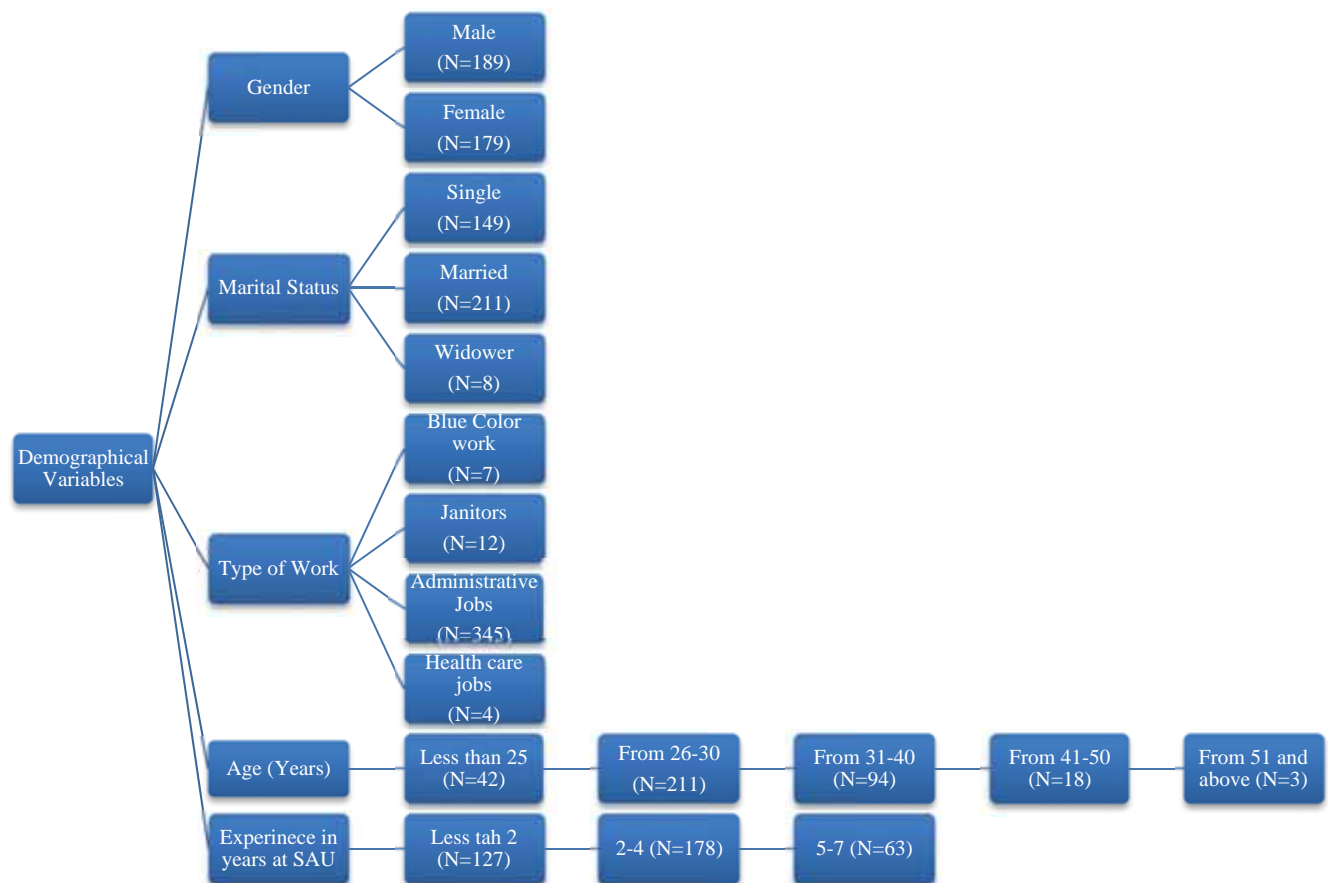
Figure 1.

4.2 Instrument

1. The Communication Climate Inventory developed and standardised by Gibb (1961) was used in the study. The questionnaire consists of 36 items and each item has to be rated on a five point Likert style ranging from 1 strongly agree to 5 strongly disagree and divided 18 items into two categories of communication climate namely defensive (odd items) and supportive (even items) types of communication climate. Gibbs pointed out that the lowest possible overall climate scores is 18 and highest scores 90 on either the defensive or supportive .Further he said that communication climate inventory designed in such a manner that lower the score the greater extent to which either climate exists in the organization. However, low defensive scores probably is the indication that supportive scores are high and vice versa, the reason is very simple that both the climate would not exist at a same time in the organization and scores will vary according to subject being evaluated.

2. Role Conflict Scale measured by eight items adopted from a scale developed by Rizzo, House and Litzman (1970). The items of the scale has to be rated on 5 point rating scale ranging from 1= very false to 5= very true. The reliability of the instrument was found to be .82.

3. Biographical Information Blank (BIB) The investigators prepared biographical information blank to gather in background information of the respondents such as age, gender, position, income, qualification, total work experience etc.

4.3 Statistics Used

Keeping the purposes of the present investigation in mind to verify the hypothesis Stepwise Multiple Regression Analysis was used. All the statistical analysis i.e. product- moment correlation and step wise multiple regression analysis were coded and analyzed by using Microsoft Excel and SPSS.

4.4 Procedure and Ethics

The researchers were distributed 500 questionnaires among subordinate staffs at Salman Bin Abdulaziz University, Kingdom of Saudi Arabia and finally received 368; it means 74% questionnaires were filled by the respondents. Initially, English version of questionnaire was translated into Arabic to make the respondents to understand each item in a effective manner with the help of experts to maintain the realm of the language. Clear instruction were given to these respondents and provided mobile numbers to them to call for help whenever they have doubts. The subjects were informed to take their own time to complete the questionnaires. The collected data put into statistical analyses for results. Further, it was necessary to maintain ethics of the research, certain formalities have been taken into account like permission has been taken from higher officials and assured to the respondents about the confidentiality will not revealed to any one at any circumstances and informed them that this study will be used for academic purpose.

5. Results and Discussion

Table 1. Mean, std. deviation and correlations matrix of defensive communication climate and their facets with role conflict among Subordinate Staff of Salman bin Abdulaziz University (N=368)

Variables	Mean	S.D.	1	2	3	4	5	6	7	8
1. Evaluation	9.39	2.86	-							
2. Control	7.90	2.58	.406**	-						
3. Strategy	8.18	2.66	.552**	.419**	-					
4. Neutrality	9.01	2.55	.537**	.266**	.482**	-				
5. Superiority	9.26	2.66	.583**	.382**	.498**	.521**	-			
6. Certainty	9.27	3.21	.637**	.404**	.565**	.560**	.702**	-		
7. Total Defensive Communication Climate	53.00	12.72	.814**	.618**	.763**	.727**	.805**	.856**	-	
8. Role Conflict	21.90	6.62	.413**	.217**	.409**	.351**	.319**	.412**	.465**	-

** Significant at .01 level.

Table 1 shows the descriptive statistics (Mean and Standard deviation) and correlation between role conflict and all the facets of defensive communication climate. Result indicates that all the facets including overall defensive communication climate showed significant positive correlation with role conflict at $p > .01$ level. Therefore, the proposed null hypothesis $H0_1$ was not accepted.

Table 2. Model summary of Stepwise Multiple regression analysis for defensive communication climate and their facets with role conflict among Subordinate Staff of Salman bin Abdulaziz University (N=368)

Predictors	R	R^2	Adjust R^2	R^2 Change	F Change
Total Defensive Communication Climate	.465	.216	.214	.216	100.702 **
Total Defensive Communication Climate, Superiority	.473	.224	.220	.008	3.962**
Total Defensive Communication Climate, Superiority, Control	.487	.237	.231	.013	6.344**

** Significant at .01 level.

a. Predictors: (Constant), Total Defensive Communication Climate

b. Predictors: (Constant), Total Defensive Communication Climate, Superiority

c. Predictors: (Constant), Total Defensive Communication Climate, Superiority, Control

d. Dependents variable: Role Conflict

It is evident from Table 2, that in the first step, defensive communication climate emerged as the most dominant predictor of role conflict among subordinate staff. The correlation coefficient between defensive communication climate and role conflict (R = .465) depicted that role conflict of subordinate staff are influenced by this factor. The obtained value of R^2=.216 which shows the proportion of variation in the dependent variable explained by the regression model. It accounted for 21.6% variation, the value of F-change is (F =100.702, p > .01) in the role conflict of the juniors at Salman bin Abdulaziz University.

In the second step superiority emerged as the important predictor of role conflict among subordinate staff. The coefficient of correlation between superiority and role conflict along with total defensive communication climate and role conflict (R= .473) found significant. The coefficient of determination (R^2 = .224) accounted for 22.4% variation in the role conflict, F-change value is (F = 3.962, p at .01). The R squared change (.008) accounted for .8% variation of superiority along with role conflict.

In the third step control emerged as the dominant predictor along with total defensive communication Climate and Superiority with role conflict. The correlation coefficient between predictor and criterion variable (R = .487) shows linear relationship. The coefficient of determination (R^2 = .237) accounted for 23.7% variation along with total defensive communication climate and superiority, F-change value is (F =6.344, p > .01) for the role conflict. The R squared change (.013) accounted for 1.3% variation of control along with role conflict.

Table 3. ANOVA of Multiple Regression of defensive communication climate and their facets on Role Conflict for Subordinate Staff of Salman bin Abdulaziz University (N=368)

Model		Sum of Square	df	Mean Square	F
1.	Regression	3478.300	1	3478.300	100.702**
	Residual	12641.776	366	34.540	
		16120.076	367		
2.	Regression	3614.035	2	1807.017	52.739**
	Residual	12506.041	365	34.263	
		16120.076	367		
3.	Regression	3828.266	3	1276.089	37.789**
	Residual	12291.810	364	33.769	
		16120.076	367		

** Significant at .01 level.

a. Predictors: (Constant), Total Defensive Communication Climate

b. Predictors: (Constant), Total Defensive Communication Climate, Superiority

c. Predictors: (Constant), Total Defensive Communication Climate, Superiority, Control

d. Dependents variable: Role Conflict

Result shown in the table- 3, that the calculated F-ratio for total defensive communication climate (F = 100.702, p > .01), superiority (F = 52.739, p > .01) and control (F = 6.972, p > .01) was found significant and contributed to the role conflict among subordinate staff. Hence, the proposed null hypothesis H0$_2$ was partially accepted.

Table 4. Mean, std. deviation and correlations matrix of supportive communication climate and their facets with role conflict among Subordinate Staff of Salman bin Abdulaziz University (N=368)

Variables	Mean	S.D.	1	2	3	4	5	6	7
1. Provisionalism	6.83	2.78	-						
2. Empathy	6.90	2.76	.685**						
3. Equality	6.67	2.43	.612**	.715**	-				
4. Spontaneity	6.52	2.43	.523**	.581**	.606**	-			
5. Problem orientation	7.24	2.20	.531**	.514**	.503**	.632**	-		
6. Description	7.79	2.14	.228**	.283**	.322**	.270**	.503**	-	
7. Total Supportive Communication Climate	41.94	11.37	.800**	.841**	.826**	.787**	.787**	.538**	-

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 depicts the descriptive statistics (Mean and Standard deviation) and correlation between role conflict and all the facets of supportive communication climate among subordinate staff of Salman bin Abdulaziz University. Result indicates that all the facets including overall supportive communication climate showed significant positive correlation with role conflict at p > .01 level. Thus, the proposed hypothesis H0$_3$ was statistically not accepted.

Table 5. Model summary of Stepwise Multiple regression analysis for supportive communication climate and their facets with role conflict among Subordinate Staff of Salman bin Abdulaziz University (N=368)

Predictors	R	R^2	Adjust R^2	R^2 Change	F Change
a. Empathy	.270	.073	.071	.073	28.84 **

** Significant at .01 level.

a. Predictors: (Constant), Empathy; b. Dependents variable: Role Conflict

It is evident from Table 5, that only empathy emerged as the most dominant predictor of role conflict among subordinate staff. The correlation coefficient between empathy and role conflict (R = .270) depicted that role conflict of subordinate staff are influenced by this factor. The obtained value of R^2=.073 which shows the proportion of variation in the dependent variable explained by the regression model. It accounted for 7.3% variation, the value of F-change is (F =28.84, p > .01) in the role conflict among subordinate staff at Salman bin Abdulaziz University.

Table 6. ANOVA of Multiple Regression of supportive communication climate and their facets on Role Conflict for Subordinate Staff of Salman bin Abdulaziz University (N=368)

Model		Sum of Square	df	Mean Square	F
4.	Regression	1177.444	1	1177.444	28.840 **
	Residual	14942.633	366	40.827	
		16120.076	367		

** Significant at .01 level.

a. Predictors: (Constant), Empathy; b. Dependents variable: Role Conflict

It is evident from the table-6, that the obtained F-ratio for empathy (F = 28.840, p > .01) was found significant and contributed to the role conflict among subordinate staff. Hence, the proposed null hypothesis H0$_4$ was partially accepted as far as empathy is concerned.

It is evident from the above results that strong relationship exists between the facets of defensive and supportive communication climate with role conflict. However, superiority, control and total defensive communication climate emerged as the predictors of role conflict but in the case of supportive communication climate only empathy emerged as a predictor of role conflict. The above results confirms that role conflict is emerging among juniors due to unnecessary control, command, not providing clear information about the organizational strategy, lack of support by the seniors, unwanted responsibilities and lack of socialization process. Further, it can be said that seniors does not show respect, not understanding the ideas, opinion, views of juniors forced them to be in the role conflict. However, role conflict always leads to absenteeism, turnover, and lower productivity, producing poor quality of products, job dissatisfaction and negative organizational commitment feelings and lower performance (Onyemah, 2008; Wu & Norman, 2006; Judeh, 2011). Apart from the above explanations that most prominent situation of role conflict is two or more role expectations contradicted at a time as a result of inadequate defensive and supportive communication climate.

6. Concluding Remarks

The researchers observation based on literature available that role conflict associated with the various variables such as organizational commitment, job involvement, job satisfaction, absenteeism, and turnover intention (Morris & Sherman, 1981; Zahra, 1984; Ismail, 1990; Jamal & Badawi, 1995; Reichers, 1983; Ashforth & Saks, 1996; King et al., 2005; Bettencourt & Brown 2003; Harris et al.). Researchers felt that adequate manpower, explicit rules and regulations, instructions, group cohesiveness, adequate resources are required to accomplish the assigned task without any resistance to minimize the role conflict. Moreover, on the basis of analysis defensive communication climate forces the subordinate staff at Salman bin Abdulaziz University that they are not able to present their ideas effectively to accomplish the task assigned by the superiors for inputs or feedback. Hence, it is suggested that superiors must consider the feelings and thoughts of others to reduce the role conflict. However, communication climate and role conflict were observed related with each other and management must pay attention to overcome the difficulties posed by juniors at workplace and superior must have open attitude towards the subordinate staff.

In harmony to the concluding remarks to avoid role conflict and established proper communication climate in the workplace, manager must modify goals, undertake structural changes, redefine relations between authority and

responsibility and, if required, transform the entire organizational structure (Kiss, 2007).Finally; this research has an avenue for other investigators for future research to focus on relevant issues of population to verify the generalization of the investigation.

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An Overview of Grounded Theory Design in Educational Research

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Abstract

Over past decades, grounded theory is increasingly popular in a broad range of research primarily in educational research. The current paper aims to provide useful information for the new-comers and fit them well in grounded theory research. This paper starts with definitions, origin and applications of grounded theory, followed by types of grounded theory research designs and the key characteristics of grounded theory. Other aspects covered include data collection and data analysis, general steps, and ethical issues in grounded theory. Discussions on the strengths and limitations of grounded theory, as well as evaluation aspects, are found in the last part of this paper.

Keywords: grounded theory, educational research, research design, qualitative research

1. Introduction

Grounded theory is a form of qualitative research designs. Lincoln and Denzin (2005) viewed qualitative research as a practice of examining studied subjects in natural settings and then transforming and making sense of the studied phenomenon through the interpretation of gathered field notes, photographs, conversations, and the other similar representations (as cited in Greg et al., 2013). Qualitative research is also concerned about an individual's assumptions and values, thus it tends to gather enriched data for data interpretation (Hancock, 1998). Grounded theory was advocated and developed by Strauss and Glaser in the last century, in the 1960s (Birks & Mills, 2011). At that time, Strauss and Glaser conducted social science research in hospitals on death awareness. They were trying to produce a new theory rather than verify the existing theory. Based on their research, the grounded theory has begun to be established.

According to Opie (2004), grounded theory is a process of collecting qualitative data and undertaking data analysis to generate categories (a theory) to explain a phenomenon of interested. As the theory is generated from the collected data, it could not be a discrepancy from truth. Similarly, Creswell (2012) viewed grounded theory as a powerful tool when a researcher needs a broad theory or explanation of a natural phenomenon. Creswell (2012) also viewed that the emerging theory is "grounded" or rooted in the data, thus it will provide a more sophisticated explanation than a theory derived from other studies. Thus, grounded theory design can be used when the current available theories fail to describe the phenomenon of interested (Leedy & Ormrod, 2005). Apart from creating new theories, grounded theory could be viewed as a process to examine data in order to discover theories that contained within (Bound, 2011). Furthermore, grounded theory is applicable to complex behavioral problems even though the contributor factors have not been identified (Stern, 1980). Besides, the created theory has the advantage of to be consistent with empirical evidence due to its nature of rooted in the real data (Eisenhardt, 1989).

According to Bryant and Charmaz (2007), grounded theory design arguably turns up to be the most common and popular qualitative approach. Moreover, grounded theory research has been successfully conducted in many educational studies (Laws & McLeod, 2004). For instances, to seek the life model of physicists and chemists, the nature of a prestigious school, effective counseling, and a school principal's leadership.

2. Types of Grounded Theory Designs

In order to produce high quality grounded theory research, researchers need to understand the grounded theory paradigm and the nature of the study. As advised by Mills et al. (2006), researchers should select a research design paradigm that is parallel with their beliefs about the nature of the phenomenon of interested. Basically,

there are three dominant grounded theory designs, namely the systematic design, the emerging design, and the constructivist design (Creswell, 2012).

2.1 The Systematic Design

This type of grounded theory design is broadly applied in educational research (Creswell, 2012). A typical systematic design in grounded theory is composed of three stages of coding, namely open coding, axial coding, and selective coding (Creswell, 2012).

In the first stage of coding, open coding, a grounded theorist is required to construct initial categories of information about the studied subject by segmenting the collected data (Creswell, 2012). To do so, the grounded theorist needs to identify the important words or phrases and label them by using a suitable term (Birks & Mills, 2011). Later, all collected data are classified into the corresponding categories. According to Waller & Myrick (2008), a grounded theorist might code the data in multiple possible ways and use memos to construct an emergent concept or theory during data analysis. In short, open coding is the initial stage of forming emergent theory or conceptualization.

Axial coding comes second after the open coding (Creswell, 2012). According to protocol described by Creswell (2012), the researcher needs to choose an open category and relate it to other categories. The said categories are related based on their causal conditions of the studied phenomenon, the strategies that used to resolve the studied phenomenon, environmental factors that influence the strategies adoption, and outcomes. In this coding stage, hypothetical relationships between the major categories and their corresponding subcategories are built (Babchuk, 1997).

According to Creswell (2012), selective coding is the third of the three stages of coding. In selective coding, a grounded theorist generates theory by interpreting the interrelationships that emerge among categories formed in axial coding (Creswell, 2012). Selecting coding retains only relevant variables to the core variables in order to yield an explicit theory (Glaser & Holton, 2004). The generated theory can be delivered through writing out the story line that interconnects the categories (Creswell, 2012). The resultant story line enables a grounded theorist to investigate how certain factors affect the studied phenomenon and how certain strategies lead to certain outcomes (Creswell, 2012).

A typical systematic design has been demonstrated by Peine (2003) to investigate gifted students' experience of sitting and waiting in a regular classroom. The researcher used purposive sampling to select 16 participants. The data were collected through a combination of methods, including semi-structured interviews, field notes from classroom observations and conversations with teachers, and maps that were drawn by the participants. Maps were used as a data source because they allowed the participants to represent their learning setting in an alternative way, Peine (2003) further claimed. In open coding, three main categories and 15 subcategories were formed. The main categories were 'School and Classroom Structure Waiting', 'Instructional Waiting', and 'Assignment Waiting'. Then in axial coding stage, the researcher used a model to illustrate the relationships emerged among the main categories and subcategories. The researcher used six components to construct the model, namely (i) the phenomenon, (ii) causal conditions, (iii) the context, (iv) intervening conditions, (v) action/interaction strategies, and (vi) consequences. Finally, in the selective coding stage, the core category was expressed as a grounded theory statement, namely 'Waiting is boring; sometimes waiting is fair'. The researcher explicated the grounded theory by using three propositions: (i) 'Already knowing'; (ii) 'Adjusted doing'; and (iii) 'Being fair'. Based upon Peine (2003), explication of the theory through propositions statements allow the voices of the participants providing concrete evidence to support the generated theory.

2.2 The Emerging Design

Glaser (1992) criticized the approach that advocated by Strauss and Corbin (1990) which overly emphasized a set of particular rules and procedures rather than theory generation (as cited in Creswell, 2012). By contrast, Glaser (1992) emphasised that the generated theories should be guided from the collected data itself and they are more valuable as compared to the operation on a set of preset categories (as cited in Creswell, 2012). Hence, Robson (2002) claimed that the emerging design is especially suitable to be applied to study 'real world' which seems relatively complex, poorly controlled, and messy (as cited in Wright, 2009).

On the top of that, Glaser (1992) further pointed out that the key objective of the grounded theory is to explain a 'basic social process', focusing on the delineation of the relationships between categories and emerging theory rather than purely describing categories (as cited in Creswell, 2012). Eventually, researchers construct a theory by discussing the interrelationships among the emerged categories without referring to a diagram (Creswell, 2012).

An exemplar of the emerging design conducted by Larson (1997) has been discussed by Creswell (2012). The aim of the study was to develop an explanation for high school teachers' conception of the classroom discussion. The researcher examined data to develop categories at first, then the categories were refined into fewer categories, followed by comparing data with emerging categories, and lastly an emerging theory regarding the process of classroom discussion was written without presenting a diagram. Besides, Wright (2009), who has also adopted the emerging design to study adult education, concluded that data analysis is the core component in this research design as the researchers are requested to 'listen' and immerse themselves in the data.

2.3 The Constructivist Design

This design is developed by Kathy Charmaz (Hallberg, 2006). Constructivists viewed that multiple social realities occur simultaneously rather that a single reality (Hallberg, 2006). The design advocator, Charmaz (2008a), viewed that the constructivist design has advantages in addressing why questions and preserving the complexity of social life. Charmaz (1990, 2000, 2006) paid more attention in individuals' principles, opinions, beliefs, sensations, expectations, and philosophy rather than truths and explaining acts (as cited in Creswell, 2012). In other words, constructivist design emphasizes the values and beliefs of the researchers. Thus, constructivist design gives a new interaction between researchers and participants and this on-going interaction will continue contributing to data construction (Hallberg, 2006). It is also assumed that the reciprocal relationships between actions and meanings- actions affect meaning and meanings influence actions (Hallberg, 2006).

According to Guba and Lincoln (1994) and Schwandt (1994), a constructivist design aims to explain participants' meanings towards a process in reality (as cited in Ghezeljeh & Emami, 2008). For instance, Charmaz (1994) used a constructivist design research to explore the experiences of chronic illness among 20 participants (as cited in Creswell, 2012). The researcher reported and captured participants' feelings by using active codes, for examples, awakening, accommodating, and defining (as cited in Creswell, 2012). Finally, Charmez (1994) summarized participants' experiences, conditions, and consequences in narrative discussion without using any diagrams or figures (as cited in Creswell, 2012). For another, McMillen (2008) adopted a constructivist design to study the feelings and experiences of eight intensive care unit (ICU) nurses (as cited in Ghezeljeh & Emami, 2008). Constructivist design was adopted because the researcher had the experience in the studied phenomena and worked with the participants, thus it would be easier to reflect the reality as compared to objective outsiders (as cited in Ghezeljeh & Emami, 2008).

3. The Key Characteristics of Grounded Theory Research Design

Creswell (2012) has listed out six major characteristics of typical grounded theory research, which are widely utilized by grounded theorists. These characteristics are as follows:

a) *Characteristic 1: Process Approach*. Corbin and Strauss (2008) viewed that the research process in grounded theory research is a series of interactions and outcomes among a group of people regarding the studied phenomenon (as cited in Creswell, 2012). In educational research, some examples of the said phenomenon include AIDS prevention, how the first year teaching life of a new teacher, or the leadership of a school principal.

b) *Characteristic 2: Theoretical Sampling*. Theoretical sampling refers to the on-going process of coding the data, comparing the data, and grouping similar data to build categories and core categories (Jones & Alony, 2011). The purpose of theoretical sampling is to systematically direct the grounded theorists to choose the most important data for the studied phenomenon (Jones & Alony, 2011). According to Brown et al. (2002), theoretical sampling can be stopped when theoretical saturation is achieved. Theoretical saturation can be identified through three parameters: (i) no new data is distilled from a certain category, (ii) the category could sufficiently cover salient variations and process, and (iii) the interrelationships between categories have been delineated appropriately, as suggested by Brown et al. (2002).

c) *Characteristic 3: Constant Comparative*. One of the fundamental features of grounded theory pertains to constant comparative (Moghaddam, 2006). As implied by the name, constant comparison is the process of comparing like with like, to trace out the emerging pattern and theory (Goulding, 2002). Besides, Hallberg (2006) viewed the constant comparative method as the 'core category' of a grounded theory design because all the collected data are compared constantly to find out their commonalities and variations. For instances, it involves comparing events to events, events to codes, codes to codes, codes to categories, and categories and categories (Birks & Mills, 2011).

d) *Characteristic 4: A Core Category*. The core category (or central category) portrays the main theme of a study (Strauss & Corbin, 1990). According to Hallberg (2006), a core category can be viewed as the integration of other major derived categories into a theory that rooted in the collected data. Thus, Birks and Mills (2011) proposed that a grounded theorist should choose a core category that is able to explain the rooted theory as a whole. Several criteria for choosing the core category have been pointed out by Strauss (1987) including: (i) the core category can be related to other major categories, (ii) it should emerge frequently in the data, (iii) the generated explanation must be logical and consistent when comparing to the major categories, (iv) the core category should be named sufficiently abstract so that it can be used in other relevant studies, (v) the generated theory should have explanatory power, and (vi) the generated explanation should have the ability to hold among various conditions (as cited in Strauss & Corbin, 1990).

e) *Characteristic 5: Theory Generation*. The outcome of grounded theory research is to construct a theory that explains a studied phenomenon from the collected data. Since the generated theory is close to the data, it does not have an excellent ability for generalization, thus it could not be applied widely for many situations and people, as believed by Creswell (2012). Creswell (2012) further pointed out that the resultant theory can be presented in three forms: (i) as a visual coding paradigm, (ii) as a series or hypothesis, (iii) or as a narrative story. Brown et al. (2002) viewed that building 'story' is a crucial aspect in generating theory as it is capable of expressing the most salient factors of the actual data in narrative sentences. Brown et al. (2002) further added that a good 'story' should delineate the relationships between subcategories to the core category.

f) *Characteristic 6: Memos*. Grounded theorists create memos about the collected data. Mavetera & Kroeze (2009) argued that memo writing is a good idea to record emergent concepts or ideas throughout the research process. These types of memos are known as theoretical memos. Documentation of these ideas and thoughts would prevent paralysis in the process of generating theories as memo writing is helpful to direct researchers into data and questions that need further exploration. Besides, Birks & Mills (2011) reviewed that memo writing is an on-going process from the beginning to the completion of the research and these memos will be transformed into research findings. Corbin and Strauss (2008) added that memo writing is also a powerful analytic tool for researchers to achieve conceptualization. Other than this, memo writing will increase a researcher's intellectual assets (Birks & Mills, 2011). Thus, Babchuk (1997) advised researchers not to underestimate the importance of memo writing as a source of creativity and as a fundamental component to generate emerging theory.

4. Data Collection and Data Analysis in Grounded Theory

To ensure rich data, the data collection stage is a crucial stage to obtain different kinds of sources as an endeavour to develop explicit theories. In general, data could be collected in forms of interviews, observations, focus group discussion, and documents. Of these, interviews arguably the most frequently reported method (Egan, 2002). Egan (2002) proposed that an effective interview should be lengthy at the beginning stage of a study and be more specific and focus on the topic of interest during the final stage. Egan (2002), however, suggested that data could be collected using a combination of methods. Egan (2002) further pointed out that data collection is an on-going process which involves exchanging collected data between the developed codes and categories. The data are likely collected in broad-based and unstructured manner during the initial phase, but when the research process advances, the central themes become more specific, data collection becomes more structured (Egan, 2002).

According to Miles & Huberman (1994), data analysis process for a qualitative research deals with massive data in terms of words, language, and the implied meanings from them (as cited in Walker & Myrick, 2006). The aims of data analysis are to organize and reduce the great deal of data, further sampling each piece of data into themes with similar properties, and consequently lead to theory formation (Walker and Myrick, 2006). Corbin and Strauss (1990) viewed that data coding is an analytic tool for researchers to manage large amounts of raw data. During data coding, data are broken down into smaller chunks, compared, and grouped in categories based on their similarities (Walker & Myrick, 2006).

Along with data coding, Strauss and Corbin (1990) suggested line-by-line analysis for open coding, that is, data are examined phrase by phrase or even in word by word manner. Although line-by-line analysis is somewhat time-consuming, it enables researchers to line out categories quickly (Strauss & Corbin, 1990). Allan (2003), however, claimed that line-by-line analysis not only time-consuming but sometimes it makes researchers lost within massive data. Instead, Allan (2003) suggested the use of 'Key Point Coding', in which researchers should identify the key points from interview data and then concentrate the subsequent analysis on them. Besides, Dey (1993) suggested the researchers to adopt computer software analysis packages to organise data, such as

NUD.IST and ATLAS.ti, as they offer an advantage in generating theoretical categories from only a small amount of data (as cited in Opie, 2004).

Unlike typical qualitative research, research process for grounded theory unlikely is a linear process (Charmaz, 2006). Data collection and data analysis, in general, are woven through the research process (Egan, 2002). That is, grounded theorists collect and analyse the data almost concurrently (Dunne, 2011), and the theory continues to develop along with the existence of new data (Bound, 2011). According to Campbell (2011), the continuous checking and rechecking data process ensure the resultant theory is truly applicable to the studied phenomenon (as cited in Bound, 2011). This on-going course should not be stopped unless the data saturation point is achieved (Egan, 2002).

5. General Steps in Grounded Theory Design Research

Creswell (2012) has outlined eight major steps to conduct grounded theory research. The steps are summarized as below:

a) *Step 1: Decide whether a Grounded Theory Design Suits the Research Problem*. Grounded theory is applicable to generate a new theory or adjust an existing theory, giving a more explicit explanation to a studied process, and to discover a general perception of the interactions and actions among human being. Grounded theory also appropriate for sensitive topics or when participants request to protect their privacy. Goulding (1999) viewed that grounded theory is also suitable to elicit a theory that receives only a little attention in previous studies, or has been overlooked in the literature.

b) *Step 2: Plan a Feasible Process to Study*. As discussed before, grounded theory research aims to generate theory for a topic of interest in reality. To accomplish the goal, researchers need to recognize a tentative process in the early stage. The tentative process, however, is changeable during the research. The tentative process should follow from the nature of the research problems and questions that needed to be resolved by the researchers.

c) *Step 3: Seek Approval and Access*. As the nature of research, grounded theory research also requires researchers to get the agreement from the interested institutions and interviewees to seek the approval to collect data. For instance, in a study with intellectual disabilities adults conducted by Carey (2010), to get access to the participants, the researcher needs to provide the details of the study to the ethics committees, including aim of the study, interview questions, and observation guides. Carey (2010) furthered added that gaining voluntary consent from adults with intellectual disabilities is an on-going negotiation process rather than simply a single act of give-and-accept. A novice grounded theorist not only learns how to conduct grounded theory research, but also learns how to manage the ethical issues (McCallin, 2010).

d) *Step 4: Theoretical Sampling*. Theoretical sampling is one of the key fundamental concepts in grounded theory, in which it requests researchers keep returning to the original data sources to attain in-depth data. Hence, the researchers need to collect data continuously until the developed categories are saturated and an explicit theory is developed successfully. Thus, Charmaz (2008b) viewed that theoretical sampling is a process of collecting data which will contribute to the illumination of the theoretical categories and consequently construct the emergent theory. Besides, the purpose of theoretical sampling is not to increase the generalizability of the study, but to develop the emerging theory, hence, ground theorists have to seek more uncover cases in the initial stages, as described by Charmaz (2008b). Besides, Glaser (1978) has outlined two main steps in theoretical sampling (as cited in Jones & Alony, 2011). First, a grounded theorist undertakes constant comparison to the collected data in term of their minimal differences. This step is helpful in developing and defining categories quickly. Later, the researcher needs to maximize the differences in collected data to ensure all the categories are fully defined and the data saturation is achieved.

e) *Step 5: Code the Data*. During the data collection process, all the data need to be coded. Data coding process aims to guide researchers to determine what data to collect next. The researchers also need to compare the collected data and group the data into the corresponding categories based on their commonalities. A number of 10 developed categories may meet the needs of typical grounded theory research; however it depends on the complexity of the studied phenomenon.

f) *Step 6: Use Selective Coding and Develop the Theory*. In this step, a grounded theorist needs to triangulate and delineate the relationships between categories in the coding paradigm logically. This step also refines the developed axial coding paradigm and presents it as a conceptual model or a theory of the studied phenomenon. Writing a story to show the emerged interrelationships among categories, as well as describe them narratively, are suggested.

g) *Step 7: Validate the Emerging Theory*. To generate an understandable theory to the public, a grounded theorist needs to render the studied events in the correct sequence. To check the data against categories, the researcher asks questions relevant to certain categories, and return to the data to seek evidence. After forming a theory, the researcher is required to validate the theory by comparing it with extant theories that found in the current available literature.

h) *Step 8: Write a Grounded Theory Report*. Since the grounded theory report is more systematic as compared to other qualitative research, for examples ethnography and narrative research, the structures of a grounded theory research should be more scientific. Besides, the problem statement, methods, discussion, and findings should be included as well.

6. Ethical Issues

A grounded theorist plays an active role in seeking explicit theory from a substantive phenomenon. Hence, an array of ethical issues arises throughout the grounded theory process. According to Creswell (2012), these ethical issues range from how the grounded theorist advancing the purpose of the study, assigning appropriate authority and power to the interviewees, and documenting a logical framework for the grounded theory research in order to enable other grounded theorists to replicate similar research.

To prevent ethical pitfalls, as outlined by American Educational Research Association (2005), educational researchers should (i) avoid any exploitations upon either research populations or organisational settings for private gain, (ii) not force any participants to take part in research, (iii) take individual differences in terms of gender, cultural, and religious into account in their research, (iv) reduce the use of research techniques which might adversely affect the participants, for instance, interventions that might harm students' important parts in standard curriculum, (v) be conscious to the on-going organisational activities and report to the organisations for any possible disturbances resulting from the research, and (vi) report the research findings to the relevant research populations, organisations and others in clear and suitable language (as cited in Drew et al., 2008).

Besides, Khan (2014) viewed that an ethical researcher should inform the details of the conducted research to the participants and their participation must be voluntary. Thus, according to Neuman (2011), the researcher should gain informed consent from participants before approaching them for data collection (as cited in Khan, 2014). Furthermore, for research involving children as participants, the informed consent should be obtained from both children and parents (Diggs-Brown, 2012). Furthermore, gaining access and informed consent from vulnerable groups are somewhat more complicated. For example, to consult with participants with learning difficulties, Stalker (1998) needed to first obtain formal agreement from relevant organisations, such as social work departments and hospital committee, and then the second stage was to seek permissions from professionals within the studied settings. However, gaining permissions did not guarantee that individuals with learning difficulties would agree to participate in the research, Stalker (1998) further added.

During data collection, in regard to ethics approval perspective, Khan (2014) suggested that researchers should try to reduce the institutions' involvement, for instance, researchers could recruit participants through their social networks instead of enrolling participants through participants' institutions. Khan (2014) also suggested several ways to protect participants' identities including: (i) using pseudonyms for participants when transcribing audio-recorded interviews, (ii) keeping all the data in a safe place, for example, a locked cabinet, and (iii) storing all the electronic data in a password protected computer.

7. The Strengths and Limitations of the Grounded Theory

As with other research methods, grounded theory exists with some drawbacks and is not perfect. This part presents some strengths and limitations of grounded theory research. Researchers should take them into account in order to select the most appropriate research methods for their educational inquiry.

7.1 Strengths

Unique to grounded theory, according to Bryant (2002), grounded theory takes researchers' perceptions into account in the research process. In other words, grounded theory offers opportunities to the researchers to use their values and understanding in order to generate a new theory for a very complex phenomenon. This statement greatly manifests the benefits of the grounded theory that allowing researchers to develop a more rigorous theory since many others qualitative research methods are designed to examine an existing theory. Martin & Turner (1986) viewed that grounded theory is a theory discovery method that enables the researcher to generate a theory for a process by grounding the theory from the collected data (as cited in Jones & Alony, 2011). Similarly, Cho & Lee (2014) stated that grounded theory permits researchers to have a glance at the studied phenomena with

new angles and construct new perspectives without restriction on extant theories. Thus, grounded theorists are able to understand the studied phenomena holistically, Cho & Lee (2014) further added.

Some main features of the grounded theory research design belong to constant comparison and theoretical sampling. Theoretical sampling enables participants continuously to provide new evidence until theoretical saturation; meanwhile, constant comparison is an on-going process that requires researchers comparing across the data to generate an emerging theory (Goulding, 2002). Hence, Laws & McLeod (2004) viewed that grounded theory has the great potential to produce a theory with detailed information. As stated by Jeon (2004), "these strategies of comparing and asking questions are embedded in the entire research process to sharpen the researcher's thinking and help him/her understand what is in the data". Furthermore, Jones & Alony (2011) highlighted that grounded theory research design enables the researchers to involve themselves into the field to gather useful information about the studied process.

As compared to other qualitative research, case study for example, grounded theory provides a somewhat systematic methodology for researchers (Lawrence & Tar, 2013). Patton (2002) pointed out that data analysis in grounded theory begins with basic descriptions, followed by conceptual ordering and then moves to theory formation (as cited in Walker & Myrick, 2006). For instance, Jones & Alony (2011) felt comfortable with the guiding structure provided by grounded theory, as the analytical process was systematic. This feature possesses some particular significance to doctoral and other graduate programmes. This is because these programmes require that students to select a set of appropriate procedures to distill disciplinary knowledge of diverse philosophies (Birks & Mills, 2011).

7.2 Limitations

Grounded theory provides greater freedom and flexibility for researchers (Jones & Alony, 2011). Potrata (2010), however, has rethought whether the freedom and flexibility would contribute to potential harm in grounded theory research. Potrata (2010) concluded that a set of less rigid guidelines should be outlined for novice researchers, but greater freedom is allowed for skilled and experienced researchers.

To report grounded theory research, writing doctoral thesis in particular, Dunne (2011) argued that writing grounded theory in traditional format, namely 'literature review ->findings ->discussion' might lead to a problematic situation because this linear way does not reflect how the actual grounded theory developed. Although that is not an one-size-fits-all template, Dunne (2011) proposed that grounded theorists should express their grounded theory research in a manner that is best suited to the nature of their studies and present their findings in an effective manner. Even more, some grounded theorists, novice researchers in particular, misunderstanding that they should ignore the literature review as grounded theory design is able to generate a theory that does not available in the current literature (McCallin, 2003; Suddaby, 2006). McCallin (2003) held that literature is important to stimulate thinking and promote better theoretical understanding in grounded theory, which in turn contributes to the generation of rigorous knowledge. McGhee et al. (2007), however, suggested that researchers should practice reflexibility, namely an explicit quest to prevent the prior knowledge or available literature distorting researchers' judgment of the data.

As a fact of the matter, grounded theory is not perfect for all the research questions. According to Suddaby (2006), grounded theory is more appropriate for understanding how a process that subjectively perceived by a group or person, or to study how a reality is understood rather than to generate knowledge regarding objective reality. Besides, there is a risk in conducting grounded theory research to the areas which supported by extensive empirically based literature as the resultant theory might not be truly guided from the data, but prejudiced by the extant literature whether consciously or unconsciously (Goulding, 1999). To avoid this, ground theorists should enter the field to collect data at the initial stage, as suggested by Goulding (1999). Besides, Charmaz (2008c) claimed that, the openness offered by grounded theory permits researchers to conduct investigation on major processes. Charmaz (2008c) found that, ironically, many researchers adopt grounded theory for preconceived problems.

Apart from that, Glaser (1978) concerned about the risk that grounded theorists fail to develop a solid theory after interpreting data (as cited in Jones & Alony, 2011). As a matter of truth, ones' perceptions on the collected data are somewhat subjective. As stated by Charmaz (2008b), the research process appears to be relying on researchers' subjectivity. For example, individuals' thoughts might affect the data coding process and inevitably affect the major categories (Moghaddam, 2006). Thus, data analysis and theory generation also depend on the researchers' ability. As claimed by Glaser & Strauss (2006), some researchers are incredulous towards themselves and their generated theories as they depend on questionnaires or other "objective" research methods. To resolve this vulnerability, Charmaz (2008b) suggested that grounded theory research should be conducted

with an intersubjective attitude; that is, researchers should always aware their role as researchers and have psychological attitudes rather than merely biographical attitudes in conducting research.

One of the key features of grounded theory is a grounded theorist has the right not to refer back to the participants if the participants agree with the data analysis that did by the grounded theorist (Elliott & Lazenbatt, 2005). In this point of view, the generated theory might be contaminated by researcher's bias, for example, when the researcher believes that extant theories can be applied to many other conditions directly (Glaser & Strauss, 2006). After examining a pool of adult education research, Babchuk (1997) suggested that grounded theory research should be conducted in a collaborative way as researchers could have on-going discussions at all research process. This method will facilitate internal triangulation as well as peer review, according to Babchuk (1997). Collaborative forms of inquiry seem effective in avoiding personal bias. Other than working in collaborative forms, Elliott & Lazenbatt (2005) claimed that memo writing is also an effective way to reduce distortion as it can increase researchers' sensitivity to personal bias.

8. Evaluation for the Quality of Grounded Theory Research Design

There is not an acceptable definition of the 'best' grounded theory research design exists worldwide. Lincoln & Guba (1985), however, have suggested some qualitative criteria to evaluate grounded theory research, including credibility, transferability, dependability, and confirmability (as cited in Elliott & Lazenbatt, 2005). As cited in Brown et al. (2002), credibility refers to what extent the collected data reflect the reality (Lincoln & Guba, 1985); transferability means research's theoretical parameters (Marshall & Rossman, 1995) and the applicability of the findings to other conditions; dependability examines to what degree the data represent the changing conditions of the studied phenomenon; and confirmability ensures the "objectivity" of the researchers, namely to what degree other researchers confirm the study from the same data.

Bitsch (2005) has suggested a series of measures to ensure good quality grounded theory research. To strengthen credibility, Bitsch (2005) proposed that the research team should (i) invest enough time in the study, (ii) conduct a persistent in-depth study to obtain relevant data, (iii) have an on-going discussion with individuals who do not involve contractually, (iv) refine hypotheses for all cases, (v) aware for bias, (vi) re-check data and interpretations with participants' input, and (vii) perform multiple forms of triangulation to enhance research findings. To increase transferability, Bitsch (2005) viewed that probability sampling is an effective way to minimise context-dependence and lead to better generalizability. Besides, as advised by Bitsch (2005), researchers should be consistent in research methods as any changes might jeopardize the dependability of research. Lastly, researchers should follow the research process correctly to ensure that the research findings are truly anchored in the data and not directed by their values or political persuasions (Bitsch, 2005).

Another set of evaluation criteria has been articulated by Strauss & Corbin (1990). They assessed the quality of grounded theory research based on the research process and the research findings. As an effort to assess the research process, they examine: (i) how the sample had been selected, (ii) what were the categories formed, (iii) how the events pointed to the major categories, (iv) how the theoretical sampling proceeded, (v) what were the hypotheses and how were the hypotheses formed and validated, (vi) what were the discrepant events for the generated hypotheses and how did the discrepancies influence the hypotheses, and (vii) how the selection of the core category was undergone. For the assessment on the research findings, they examine: (i) are concepts formulated, (ii) are the generated concepts related systematically, (iii) are there many conceptual relationships and are the categories well-formulated, (iv) how much the variations accounted for the theory, (v) are the broader factors built into the theory, (vi) has the changes or movements been identified, and (vii) do the findings significant and to what degree. Strauss & Corbin (1990) concluded that these guidelines would assist researchers to judge to what extent the generated theory 'fit' the studied process. Furthermore, it also help researchers deliver the research limitations clearly to the interested parties.

To ensure high quality research findings, Sbaraini et al. (2011) have outlined a few guidelines for data collection including: (i) record interviews digitally, (ii) analysis the interview transcripts as soon as possible, (iii) write memos immediately after every interview session in order to grasp the initial concepts, (iv) find opportunities to get access to participants to clarify concepts after interviews, and (v) employ phone interviews in order to have a wider range of participation. During data analysis, Sbaraini et al. (2011) advised researchers to: (i) keep detailed analysis records which help to produce an explanatory paper later on, (ii) make maximum use of constant comparative method in order to generate a well-explained social process model, and (iii) have regular research team meeting to discuss emerging concepts which help to generate a broader scope of disciplinary perspectives.

9. Conclusion

The current paper has presented the general review on the multifaceted aspects of grounded theory. Grounded theory has been widely used to seek an explanation for a phenomenon of interested in social life. Grounded theory research design is especially helpful in generating explanations or refining contemporary theories for complex phenomena in social life. Grounded theory also is applicable to practical problems in which established theories do not exist. Thus, grounded theory can be viewed as a powerful tool to explain a social process which is difficult to reveal with other inquiry methods. In short, grounded theory is worth pursuing in educational research.

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The Development of the Black Sea Straits Regulation of International Navigation

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Abstract

The Black sea straits as part of significant sea root were long time targets of the international politics and law. Regime constructed by Montreux Convention of 1936 was stable during decades but since 90-s Turkey unilaterally changed the rules. Objectively the new Turkish Regulations were a big step to prevent pollution, to improve the safety of vessel traffic and to ensure the safety of navigation through the mentioned straits. But it still has problematic provisions that breach the Montreux convention and modern principles of the law of the international navigation. Author tries to find limits established by the international law in this area because environmental reasons should not justify unjust actions. The Black sea straits case shows us how it is difficult to find balance between claims of user states and littoral states.

1. Introduction

The legal status of the international straits is a very significant issue for the world navigation because some of the straits have economic and strategic importance. Major navigation routes related to Russia pass through such straits. Transparency and predictability of navigation regulation impact perspectives of shipping development in the country. Perhaps the most important group of straights for Russia and other Black sea states is the Black Sea straits. They are the only way to access large international navigation routes from South-West of Russia. The Black Sea straits consist of the Bosporus strait and the Dardanelles strait and they connect the Black Sea and the Mediterranean Sea.

The Bosphorus is 15 nautical miles long and, at its narrowest point, it is 0,3 nautical miles wide, and its maximum width is 2 nautical miles. It divides Istanbul into two parts. It joins the Black Sea to the Sea of Marmora. The Dardanelles is the continuation of the Bosphorus. It is 35 nautical miles long, with a minimum width a little over one nautical mile, and a maximum width of 3.5 nautical miles, it connects the Sea of Marmora with the Aegean Sea. Depth is approximately 50 m (Martín, 2010, p. 78).

According Article 35 of the United Nations Convention of the Law of the Sea provisions of the Part III "Straits used for international navigation" cannot influence the legal regime in straits where passage is regulated by long term international convention in force especially relating to such straits" and The Black Sea straits already have such agreement. It means that in the first place we should define the legal regime of straits in compliance with the convention that was applied there before.

2. Historical Aspects

It should be noted that nowadays Republic of Turkey did not sign the UNCLOS (United Nations Convention of the Law of the Sea) (See Status of UNCLOS). Turkey is not a party to this agreement, and is not promising to take part in UNCLOS convention in the near future. The transit passage rule does consequently not bind Republic of Turkey as treaty norm, and it is not fully transparent whether it applies as customary rule in its integrity (Rothwell & Bateman, 2000). The main applicable international law act that defines the legal status of these straits is the *Convention regarding the regime of the straits* (the Montreux convention) of 1936. This Convention just contains twenty nine articles and defines rules of navigation through the Black Sea straits. The first article establishes that Parties of the Convention appreciate and ratify the main rule of freedom of transit and navigation by sea in the Black sea Straits. The exercise of transit freedom was regulated by the rules of the Montreux Convention of 1936.

The Montreux agreement replaced the Turkish Straits regime established by the 1923 Lausanne Treaty and led to basic changes. This agreement retained the principle of *freedom of passage and navigation* for all merchant vessels, but the new Convention restored full sovereignty privilege over the Black sea straits to Turkey Republic. Most significant thing that the proscription against militarizing the Straits by the Turkish Republic was withdrawn and it permitted government to establish the military presence for self-defense. While foreign navy vessels still could enjoy privilege of passage, convention regarded interest of Turkey and riparian states security issue. It should be noted that the function that belonged to the international commission were handed over to the government (Gündüz & Nilüfer, 1998).

The Montreux Convention, as mentioned on the official web-site of the Ministry of foreign affairs of the Turkish Republic, is an indispensable part in scope of regional security and stability. This agreement has been appropriately and without bias implemented by the Republic of Turkey for more than seventy years (See Implementation of the Montreux Convention).

The Montreux Convention states that merchant vessels have right of free transit and navigation in the Straits twenty-four hours, under any kind of flag and with any type of cargo. Vessel just should follow small formalities, such as international sanitary regulations, and small taxes empowered by Annex. Agreement underlines that pilotage and towage are not compulsory for the nongovernmental vessels passing through the Black sea Straits. The captain just has to inform Turkey authorities about name, nationality, tonnage, destination e.tc.   It means full freedom of transit without any interventional of coastal state.

According to Articles 4 and 5 of the Convention freedom of merchant navigation remains also in case of war if the Republic of Turkey is not being belligerent. Even if Turkey takes part in war nongovernmental vessels not belonging to a country at war with it shall enjoy freedom of transit and navigation in the Straits on the condition that it does not, in any way, assist the enemy. These provisions correspond to the main principals of the Law of the Sea and do not permit coastal state interfere in merchant navigation regardless of flag, cargo and tonnage of a ship. Moreover, clauses of the Montreux convention long time supported development of shipping and provide a balance of power in the Black Sea region. The main achievement of this international act is the absence of sufficient conflicts in the area until recently.

3. Discussions

The situation changed on the 13th of March 1994 when a ship accident happened and Turkey unilaterally tried to make rules of navigation tougher. It was very famous accident when the tanker, Nassia, collided with the dry bulk carrier, Shipbroker, in the Bosporus strait (strait of Istanbul). According the media the Nassia dangerous drifted close to the European side of strait and her cargo burned and spilled until the Turkish authorities managed to tow away the flaming wreck. It caused that shipping through the Istanbul Strait was banned for week and more than 500 vessels had to wait for transit passage (Yücel, 2001).

After this incident the Republic of Turkey enacted the Marine Traffic Regulations for the Turkish Straits and the Marmara Region which according to our opinion contravenes some clauses of the Montreux Convention. For instance, Article 1 of the Regulations contains the item that Maritime traffic in the Straits may be temporarily stopped by the Turkish authorities due to a lot of reason such as some underwater construction or even scientific and sports activities and pursuing criminals etc. It should be noted that Turkish legislator uses phrase "and in other similar cases" in the end of this provision. It means that Black sea states could be cut off from world navigational routes due to a wide circle of reasons but some of countries have no other sea routes to global sea space and so it indirectly intervene their right of access to this area and their right to free transit passage that is guaranteed by international agreement ratified by Turkey.

Besides according to Article 31 of the Regulation foreign vessels are recommended for safety purposes to take a pilot and the Administration of strait may establish compulsory pilotship requirements in settled areas in the Black sea Straits and the Marmara region. This rule is directly opposite to the Convention that claims the optional character of pilotage (See Article 2 of the Convention).

The Article 25 of the Regulations requires that vessels which cross over the specified traffic lanes may be fined but it is not implied by the Montreux Convention because the Article 1 claims freedom of transit and navigation in the Straits.

In addition, the Montreux Convention calls for freedom of transit and navigation in the Straits under any flag and with any type of cargo, without any formalities except sanitary rules. The Regulations restricted navigation of some vessels on the contrary. For instance, Article 42 claims that when a large vessel with hazardous cargo enters the Strait, another vessel which carries hazardous cargo has not enter the Strait until the previous vessel

has departed. Also, Article 52 requires that when a large vessel with hazardous cargo enters the Strait, a similar vessel which moves from the contrary direction has not enter the Strait until the previous vessel has departed. There have to be a distance of at least 20 nautical miles between two vessels with hazardous cargo which are moving in the same direction. This provision creates a interruption of traffic through the Turkish Straits and provides additional threats to navigation.

For instance, an uncontrollable crowd of drifting vessels with hazardous cargo appeared near strait entrance (at least 20 vessels) (Blagodelsky, 2008). Since the introduction of regulations for navigation in the Straits by Turkey, from 1 July 1994 to 1 July 1998 512 ships owned by the Novorossiysk Shipping Company alone, sailing under the Russian flag, were detained due to suspension of two-way traffic and introduction of one-way traffic by the Turkish Authorities (detentions due to bad visibility and weather are not included). Forced idleness of the ships operation was 2523 hours and the Company's losses constituted US $1,338,122. This situation isn't considered by Russian government as an acceptable situation and Russia proclaimed it in MSC meetings (IMO Doc. MSC 70/11/11).

Turkey even changed the names of straits and instead of the generally accepted Bosporus strait and Dardanelles strait it uses the Strait of Istanbul and the Strait of Canakkale (See Article 2). But these names are used since ancient times and marked on maps many thousands of times.

The Regulations also have other discrepancies to the Montreux Convention that increase costs of navigation, create new threats and leads to instability at the Black Sea region. The Russian Federation (See MSC 63/7/15), generally supported by a number of delegations, noted that the rules for ships navigating in the Straits of Istanbul and Canakkale, proposed by Turkey have a number of rules which contradict universally recognized rules of the Law of the Sea and especially the terms of the Montreux Convention. There was the opinion that rules of the Regulations to be adopted by the Organization should conform completely to the 1936 Montreux Convention, the United Nations Convention on the Law of the Sea of 1982, the provisions of customary law on straits used for international navigation etc.

In 1995, the IMO Assembly adopted resolution A.827(19) and it brought into force Rules and Recommendations on Navigation through the Strait of Istanbul, the Strait of Canakkale (the Black sea straits) and the Marmara Sea. The Assembly of the International Maritime Organization emphasized that Rules and Recommendations are established totally for the purpose of safety of navigation and environmental protection and are not intended in any way to touch or trespass against the privileges of any ship which follows international maritime law, including the United Nations Convention on the Law of the Sea and the Montreux Convention, using the Straits. Moreover any national regulations proclaimed by the coastal State should be in absolute conformity with the rules, norms and regulations adopted by International Maritime Organization. After making protests against the Regulations to the International Maritime Organization by the some members of the Montreux convention Turkey enacted the Maritime traffic regulations for the Turkish straits Regulations at 1998 (the new Regulations).

The new Regulations established Traffic Separation Schemes (TSS) and boundary lines of the Turkish Straits. And according to The International Convention For Preventing Collision at Sea (COLREGS 72) Reg. (10) (Article 3 of the new Regulations) requires vessels navigating within the Straits to be in compliance with the Annexes in force of Marpol 73/78 Convention (Articles 29). It also takes into consideration some other international law acts and recommendations of the International Maritime Organization. But it should not mislead you this Regulations also puts obstacles in the way of international navigation through Bosporus strait and Dardanelles strait. For example, it cancels permission-based procedures of large oilers passing.

First of all, the new Regulations uses Turkish names instead of names generally accepted in the world (Article 2) which does not breach international law but it creates additional inconveniences. Also, according to the new Regulations of the Republic of Turkey authorities have the possibility to suspend the traffic for the straits. Traffic in the Straits may temporarily be suspended by the Administration in plenty of cases (Sea article 20) and some of reasons for suspension are defined pretty uncertain. For instance, traffic in Straits could be interrupt in case of construction works for the common wealth of the public or for public security reasons.

Furthermore, the Turkey limits some types of vessels from passing through straits. For example, Article 25(d) claims that when vessel leading towards the south with dangerous cargo enters from the north of the Istanbul Strait, no vessel leading towards the north is permitted with the same cargo until the first mentioned reaches to Istanbul Bogazi Bridge.

Some Russian authors have noted correctly that international law has no restrictions for vessels with dangerous cargo (Kolodkin, Guculyak, & Bobrova, 2007). For instance, the United Nations Convention on the Law of the

Sea of 10 December 1982 states that vessels carrying dangerous or noxious substances or materials may be required to limit their passage to prescribed sea lanes (Article 22 part 2 of the UNCLOS) and that such foreign vessels, when innocently pass through the territorial sea, carry documents and observe special precautionary measures established for ships of this type by international agreements (Article 23 of the UNCLOS). The UNCLOS Convention does not provide any reasons to ban the innocent passage of such vessels.

Objectively the new Turkish Regulations were a big step to prevent pollution, to improve the safety of vessel traffic and to ensure the safety of navigation through the mentioned straits. But it still has problematic provisions that breach the Montreux convention and modern principles of the law of the international navigation.

Next, significant steps were improvement of (TSS) traffic separation schemes and other routing measures and mandatory ship reporting systems were adopted to establish of infrastructure that aims to ensure the uninterrupted flow of traffic through the Strait and the averting of safety and environmental risks. The establishment, by the Turkish Government, of a new vessel traffic service to supervise and assist maritime navigation in Straits contributed to the improvement of the overall situation. It should be noted that more the Russian Federation than once declared that the root of the problem is not in the strictness of domestic law but the improvement of strait infrastructure. But we still consider that safety measures in the Straits should consist of the amended TSSs in the area (annex 1 to annex 10 of NAV 43/15), the revised Rules and Recommendations (annex 2 to annex 10) and recommendations addressed to the Government of Turkey (annex 3 to annex 10) which hopefully will be implemented. Maritime safety committee (70th session, Agenda item 11, MSC 70/11/11). Russia repeatedly offered to help Turkey while it was putting into operation the Vessels Traffic Services (VTS) system in the Black Sea Straits. For instance, the Russian Federation claimed that it was open to cooperate with the Turkish Maritime Administration in this area and was ready to assist in training of the operators at the Russian VTS Centers (Maritime safety committee, 78th session, Agenda item 25. MSC 78/25/4. 5 March 2004).

Recently, the Republic of Turkey enacted new directives that described the enforcement conditions of Turkish Straits Maritime Traffic Order Regulations. This act complies more with the international law, IMO conventions and recommendations but it still contains a lot of disputed terms. The Turkey reaffirmed its own ability to suspend the traffic for straits for a wide circle of reasons. For instance, Article 14 (Passage Rules of the Vessels) part A. of the Directives establishes that dangerous cargo carrying vessels shall not be encountered with any other ship with a full length more than 150 m or equal. Also, dangerous cargo carrying vessel not be allowed into the Strait from the opposite direction.

It should be noted that Turkish authorities use right to suspension very actively, for instance, they suspend **the Dardanelles' vessel passages** 11 times from 1 April 2013 till 9 April 2013 (Navigation in the strait of Dardanelles). Sometimes it takes more than 6 hours, the passages were suspended due to LNG tanker MOURAD DIDOUCHE (L.O.A.= 278,82 m.) passages on 09 April 2013 for Northbound from 13:00 to 20:00 local time. Entering Dardanelles from Northern Entrance was on 09 April 2013 at 17:00 local time (Navigation in the strait of Dardanelles).

4. Conclusions

Since adoption of Marine Traffic Regulations for the Turkish Straits and the Marmara Region 1994 the Russian Federation has taken a position against unilateral changes of straits navigational rules. Russia supports that transformation of international law or enacting of new multilateral agreement is possible only by taking into consideration wills of all Black sea states. Choosing a legal course of action with respect to the Black sea straits, Russia sequentially achieved the establishment of a secure, legitimate and fair regime in this area. This experience demonstrates the power of modern international law that can provide for peaceful dispute settlement, due to existence of international institutions, like IMO.   According to exist tendency the Republic of Turkey will improve these mentioned disputable clauses and the rules of navigation through the Black Sea Straits will comply with the Montreux convention, other international agreements and requirements of merchant navigation in future.

Also Black sea straits case shows us how it is difficult to find balance between claims of user states and littoral states. Positions of both sides are based on the provisions of the international law and look well-grounded.

But probably it is time to revise and improve old international agreements according to modern conditions and needs of maritime safety and environment. Example of the Black sea straits shows us that it is necessary to take into account complex system of factors to establish satisfying rules of navigations in such significant Straits.

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The Relationship between Teachers' Factors and Effective Teaching

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Abstract

This study aims to examine the relationship between three teachers' factors that's teaching experiences, type of school performing and attendance of professional development course towards effective teaching among secondary school teachers in Johor, Malaysia. A total of 322 secondary school teachers from Malaysia involved in this study. The instrument used in this study was a set of questionnaire which combined Charlotte Danielson (2007) and James H Stronge (2007) models. This quantitative study utilized survey method with stratified random sampling. Teachers' factors were tested through correlation and multiple regression analysis. The finding indicate that there are significant positive correlation between three teachers factors (teaching experiences, type of school performing and attendance of professional development course) towards secondary school teachers' effective teaching. Highest relationship towards effective teaching is attendance of professional development course (r=.676, p< .05), following by teaching experience (r=.621, p< .05) and type of school performing shows least relationship (r=.193, p< .05). Besides, the regression model indicates a predictive significance by teachers' factors towards effective teaching. Hence, the findings support the conclusion that the selected factors are predictors of secondary school teachers' effective teaching. This study revealed the importances of professional development course and teaching experience compare with type of school performing. Teacher needs to always continue upgrade ourselves for practising teaching effectively. These findings also have implications for secondary school teachers and administrators to reflect and broaden the views towards effective teaching.

Keywords: teaching experience, school performing, professional development course, teacher, effective teaching

1. Introduction

Teaching is a unique profession which forms the human capital. Teacher is always been remembered and appreciated throughout a student learning span. In the whole of teaching process, teacher plays the role as an input in producing effective teaching and shaping the students' future. Hanushek, Kain & Rivkin (2004) explains that teachers always serve in the frontline to change the social culture through their professional action. In Malaysia Education Blueprint 2013-2025 has shown that government put more efforts on the importance of recognizing the teaching profession in order to produce quality human capital for the country (KPM, 2013). This is because human capital as a vital base to contribute in producing and expanding the development of a country. Therefore, effective teaching is the utmost important thing to propagane through teacher serves as an educational agent who has been trusted.

In the meantime, teacher always strives to shape and produce the potential citizen who is capable to contribute the resources to the nation in the future. A teacher can learn continuously in order to gallant and complete the artistic of teaching which is complicated. This is because an effective teacher in a teaching field will always 'learn to teach' for upgrading again our teaching crafts (Fetherston, 2007). This spirit is a must for teachers in order for them to achieve the level of potential in their teaching. Nevertheless, there is no absolute formula which can be memorized by a teacher in entering the class. Effective teaching is not a process which can be uttered with a loud voice. It is a journey not only can deliver the knowledge, skill and value but also can touch the the heart and soul of the students (Chia & Abdul Rahim, 2012). Therefore, teacher factors which involve the teaching experience, type of school performing and attendance of professional development course are keen to be survey whether they are correlated with the effective teaching as majority thinks about. This perspective will

manage to gallant and broaden our paradigm towards effective teaching in the 21st century educational transformation.

1.1 Teachers' Factors and Effective Teaching

Teacher plays an important role in the teaching process where learning takes place. This study is focus on teaching experience, type of school performing and attendance of professional course as the teachers' factors. Darling Hammond (2000) supported that teaching experience was correlated with teachers' effectiveness. It is consistent with Elliot (2010) study which involved teachers from Japan and Guatmala by using Stronge model stated that teaching experience as an important factor in effective teaching. These findings were parallel with study conducted by Magdeline (2012), teaching experience was related to teacher effectiveness because experience teacher able to modify the content during delivering the lessons. Hence, they manage to teach effectively and clearly for easy understanding of the students. Nye et al (2004) even emphasized teachers with more than three years teaching experiences were more effective than those less than three years experiences. The finding was same with Darling Hammond (2000) who had summarised many research and found that more than three years teaching experience teachers were more effective compare with less than three years experience teachers. This is due to new teacher needs some years of experience to polish and strengthen their teaching practice.

As for type of school performing, many previous studies indicated that high performing school has lots of effective teachers and provided effective teaching (Corbett, 2002; Stronge, 2007). Teachers from this type of school practised what they acquired and delivered to their students. According to Law & Kaufhold (2009), teachers from high performing school were more confidence to their students regarding the ability of acquiring critical thinking skill compared with teachers from low performing school. Nevertheless, there were teachers from low performing school struggled with much efforts to improve their students. Chenoweth (2007) pointed out that some people would say these (low performing) schools could never be expected to teach their students to high standards. But teachers from this type of low performing school proved that with their well time management and organising resoures skills, they able to teach their students effectively and achieved teachers' expectations. Furthermore the school was like a big family to the teachers. They were active and enjoyed to teach effectively in the school. In addition, Poplin (2011) also supported with her study which involved 31 teachers from Los Angeles and found that teachers in the school self realized that it's their responsibilities to try to push the students forward. The students able to improve and achieved targerted expectation under their teachers' teaching from the low performing school.

Effective teaching also was correlated with professional development course. The professional development course plays as a key to help teachers adapt towards the changes in their teaching practice nowadays (Baiocco & De Waters, 1998). Professional development course plays an important role to increase pedagogi content knowledge and exposure new strategy for teacher to teach more effectively. Teachers who always attend professional development courses more than eight hours were more prepared and effective compare with those who didn't attend the courses, especially in the readiness in their teaching (Holloway, 2003). However, Peckover et al (2006) disagree with the roles of professional development courses and showed their weak relationship towards effective teaching.

There were five constructs which include teaching planning, classroom management, teaching strategy, teacher attribute and professional responsibility in this study. According to Danielson (2007), teaching planning as a backstage task which organising teaching in a classroom. This effort needs well content knowledge in designing a suitable teaching for different types of students in their learning. In previous study, Misulis (1997) did supported that "*regardless of the teaching model and method used, effective instruction begins with careful, thorough and organized planning on the part of the teacher*" (pg. 45). Thus, teaching planning was needed to achieve the objectives of learning and teaching process. Classroom management is also important in effective teaching. This is because well classroom management able to produce an atmosphere which is conducive and harmony. Hence, such an atmosphere enables teaching and learning process more smoothly to be conducted and students can be more focus in their studies. Teachers also equired students to follow some procedures which means to supports teaching and learning process (Good & Brophy, 2008). Meanwhile, Stronge (2007) did mentioned majority of the effective teacher admit that they emphasis on classroom rules when start schooling in order to create a systematic class procedure which can follow by the students. Consequently, safe classroom physical space will be provided under well classroom management of the teacher.

Besides, teacher needs to provide a clear explanation through teaching strategy to the student as a guide in order to make something unclear becomes clear and acceptable in a student's live (Danielson, 2007). Well

communication between teachers and students makes the teaching process becomes more fruitful (Stronge, 2007). Divergent of questioning skill enables teachers to enhance students' high order thinking level and not just for memorizing the facts only. This is consistent with Barth (2004), appropriate questions which posted by teachers can enhance students' cognitive level to develop the concept and skill which are needed in reorganizing their previous knowledge towards the subject. In addition, flexible response from teachers makes the teaching be conducted with more effectively. The aspect of a teacher's attribute can contribute to teacher happy moods in a classroom. Hence, it affects the classroom atmosphere become more harmonious and produces implication to the space for learning and teaching take place indirectly (Nodding, 2005). Teacher's happy mood has much depends on a teacher's attribute which acts as a locomotive to interact with their students. Noblit et al (1995) stated that "*caring is central to education - the glue binds teachers and students together and makes life in classrooms meaningful*". A teacher who always cares of his/ her student able to make the student puts on more efforts in that particular subject. According to Long dan Hoy (2006), teachers' enthusiasm towards their content knowledge and student's need contribute positive effects in teaching practice. Professional responsibility involves communication between teacher and either the student's family or professional community to upgrade their professionalism. Haynie (2006) stated that teacher who always planning their lesson through collaboration with their peers and involved in professional community activity were more effective in their teaching. Constructive information or development which been shared and gained from professional community can be apply in teaching process and make it more meaningfully. Besides, Bafirman (2014) also pointed out that Sports, Physical Education and Health teachers with professionalism prioritized human values and were able to provide the best services in their teaching with professional manner. Thus, effective teaching as an important process where learning takes place and needs teacher as a vital input to contribute in this education world.

1.2 Objective

The objective of this quantitative study is to identify the relationship between teachers' factors towards effective teaching. Hence, the following research objective and null hypothesis were established to guide the present study.

i) To identify the relationship between teaching experiences, type of school performing and attendance of professional course towards effective teaching among secondary school teachers in Johor, Malaysia.

Ho1: There is no significant relationship between teaching experiences, type of school performing and attendance of professional course towards effective teaching

2. Method

This quantitative survey study explores the relationship between secondary school teachers' factors (teaching experiences, type of school performing and attendance of professional course) and effective teaching. The teachers' factors also were tested whether they were significant predictors for effective teaching. Hence, Statistical Package for Social Sciences (SPSS) 16.0 was used to analyse the descriptive and inferential statistics (correlation and multiple regression analysis) in this study. Variables were examined from various assumptions underlying multivariate such as linearity, normality, outliers and multicollinearity through exploratory data analysis to ensure related statistical assumptions were not violated.

2.1 Sampling

The population of the study was 842 secondary school teachers from 10 schools of Johor, Malaysia (5 high performing and 5 low performing schools) based on composit scores. A total of 322 samples of secondary school teachers were selected by using stratified random sampling. There were 206 Malay teachers, 77 Chinese teachers, 35 Indian teachers and 4 others races like *Bidayuh* and *Iban* teachers. The number of samples fulfilled the minimum samples saiz requirement suggested by Krejcie and Morgan (1970).

2.2 Instrumentation

The instrument used in this study was a set of questionnaire consisted by 64 items with 6 point likert scale. It was formed by five constructs, that's teaching planning (16 items), classroom management (10 items), teaching strategy (16 items), teacher attribute (10 items) and professional responsibility (12 items). The instrument has been reviewed by experts in this field to ensure the content validity (Parmjit et al, 2010). Besides, Rasch measurement model was used with unidimensionality 40% as minimum cutting point and unexplained varians in the 1st contrast less than 15% for the construct validity (Azrilah, 2010). In this study, the value of unidimensionality was 57.60% and unexplained varians in the 1st contrast only 3.6% (less than 15%). This instrument fulfilled all the setting criteria. In addition, the alpha Cronbach coefficient also showed a high reliability index with 0.98. Thus, the questionnaire was validated and reliable to be used in this study.

2.3 Exploratory Data Analysis

Exploratory data analysis was conducted to ensure the related statistical assumptions were not violated. Variables were examined from various assumptions underlying multivariate such as linearity, normality, outliers and multicollinearity. In this study, teachers' factors fit the assumption of multivariate analysis. The scatterplots' elliptical shape denoted the scores had fulfilled the requirement of linearity and normality in multivariate (Mertler & Vannatta, 2005). The maximum value of Cook's diatance in this study is less than 0.1 while Cook (1977) stated that the value in between 0.8 to 1.0 represent outliers. This means that no outliers need to be deleted in this study. Meanwhile according Hair et al (2010), cut off point for the value of Variance Inflation Factor (VIF) need to be less than 10 in order to detect multicollinearity problems. In this study, the values of VIF statistic are less than 10, which are in the range of 1.053 to 1.776. Hence, we are able to conclude that there are no serious multicollinearity problems happened among the teachers' factors in this study.

3. Results and Discussion

3.1 Respondents Demografic Profile

There were 322 secondary school teachers from 10 schools of Johor, Malaysia involved in this study (5 high performing and 5 low performing schools). In term of gender, there were more female teachers, that's 68.3% compare with male teachers (31.7%). All these respondent teachers were consisted by different unique races in Malaysia, that's Malay (206 teachers) as majority, Chinese (77 teachers), Indian (35 teachers) and others races like *Bidayuh* and *Iban* (4 teachers). The distribution of respondents by education level indicated that most of the respondents were bachelor degree holders (89.8%), while 8.7% of them possessed master degree and only 1.6% as diploma holders.

On the other hand, 161 teachers were from high performing school and others 161 teachers were from low performing school respectively. Majority of the teachers attended professional development course, however there were 11% of them didn't experience the courses. Twenty seven teachers have less than 3 years' experiences. 3-5 years teaching experiences group has 69 teachers, while 6-10 years group has 95 teachers as highest component. Besides, 11-15 years and 16-20 years teaching experiences groups were consist by 45 and 46 teachers. There were 40 teachers who have more than 20 years teaching experiences in this study.

3.2 Correlation and Multiple Regression of Teachers' Factors and Effective Teaching

To answer the research question, Pearson and Point Biserial correlation coefficient were used to report the results (as shown in Table 1).

Table 1. Correlation coefficient between teachers' factors and effective teaching

	Teaching Experience	Couse Attendance	Type of School Performing	Effective Teaching
Teaching Experience	1	.638[**]	-.004	621[**]
Couse Attendance	.638[**]	1	.169[**]	.676[**]
Type of School Performing	-.004	.169[**]	1	.193[**]
Effective Teaching	.621[**]	.676[**]	.193[**]	1

**   Significant at p< .01 level

 *   Significant at p< .05 level

Table 1 reveals that there is a high statistically significant positive correlation between teaching experience and effective teaching (r = .621 , n= 322 , p < .01). The statistically significant relationship indicates that as the teaching experience increase, effective teaching scores increase too. The finding is similar with Elliot (2010) who involved teachers from Japan and Guatmala in her research and found that teaching experience was important in effective teaching. It is supported by Magdeline (2012) regarding teaching experience was related to teaching effectiveness. Experienced teachers manage to adjust and simplify the content knowledge which makes the students to understand more easily.

Besides, a high statistical significant relationship was also been found between course attendance and effective teaching (r = .676, n= 322, p < .01). The correlation result implies that the higher course attendance, the higher effective teaching. Finding in this study affirmed statement of Baiocco &De Waters (1998) regarding

professional development course as an important key for teachers to adapt towards the changes in their teaching practice. The finding is also consistent with Holloway (2003), effective teaching practice was correlated with professional development courses. Teachers who always attend professional development courses were more prepared and effective compare with those who didn't attend the courses. Thus, the finding is contradicted with Peckover et al (2006) study which found weak relationship between professional development courses in teaching practice. This is because course attendance reveals higher correlation to effective teaching compare with teaching experience in this study.

Nevertheless, type of school performing show a low statistical significant relationship with effective teaching (r = .193, n= 322, p < .01). The finding revealed different result with Corbett (2002) and Law & Kaufhold (2009). This finding supports Chenoweth (2007) and Poplin (2011) who found that low performing school teachers also try to strive a lot to teach their students effectively. Teachers from those low performing school proved that through their well time management and organising resourses skills, they able to teach their students effectively and contribute to this big family.

Therefore, null hypothesis (Ho1) is rejected in this study. The analysis indicates that there is significant positive correlation between three teachers' factors (teaching experiences, type of school performing and attendance of professional development course) towards effective teaching among secondary school teachers in Johor, Malaysia. Highest relationship towards effective teaching is attendance of professional development course (r=.676, p< .01), following by teaching experience (r=.621, p< .01) and type of school performing shows least relationship (r=.193, p< .01). Therefore, the interesting findings broaden our views and minds towards effective teaching. This finding also strengthens again the importance of teachers' attendance in professional development courses.

In order to further determine the predictors of teachers' factors towards effective teaching, stepwise multiple regression was employed. From the result as shown, we are able to know how well the teacher factors predict effective teaching among secondary school teachers. The obtained finding in Table 2 indicates that teachers' factors are predictors of effective teaching.

Table 2. Stepwise regression analysis of teachers' factors in effective teaching

	B	β	t	Sig	R^2	F
Constant	3.323		33.609	.000*		
Course Attendance	.210	.438	8.552	.000*	.457	269.594
Teaching Experience	.150	.342	6.781	.000*	.518	171.169
Type of School Performing	.156	.120	3.045	.003*	.531	120.16

B = *Unstandardized multiple regression coefficient.*

β = *Standardized multiple regression coefficient*

* Significant at p< .05 level

Table 2 shown the result of stepwise multiple regression analysis with the values of R^2 = .531. This indicates that teachers factors in effective teaching contribute 53.1% of the variance in their effective teaching practices with {F (3,318) = 120.163, p<.05}. This means that course attendance contribute 45.7% in effective teaching practice, while teaching experience accounted for 6.1% and type of school performing only accounted for 1.3% respectively in effective teaching. The value of F statistics indicates that data collected fit the model at significant level p< .05. The regression model indicates that teachers' factors are able to significantly influence the effective teaching practice among secondary school teachers.

Furthermore, we are able to form that the regression equation for effective teaching which is consisted of:

$$\text{Effective teaching} = 3.323 + (0.210 \times \text{course attendance}) + (0.15 \times \text{teaching experience}) + (0.156 \times \text{type of school performing})$$

This suggests that in every 1 unit increase in course attendance, effective teaching increases by 0.21. Besides, effective teaching increases by 0.15 and 0.156, for every 1 unit increase in teaching experience and type of school performing. This means that course attendance as the best predictor which contributes in secondary school teachers' effective teaching, following by teaching experience and type of school performing.

Consequently, the regression model reveals that the selected teachers' factors are significantly able to predict secondary school teachers' effective teaching.

On the other hand, the value of VIF statistic were less than 10 (VIF<10), that's in the range of 1.053 to 1.776. As a result, we are able to conclude that there are no serious multicollinearity problems among the predictors' variables in this study. Therefore, it's rational to say that the predictor variables entered in this regression model present their own unique characteristics to explain the contribution in predicting effective teaching. The regression model indicates a predictive significance by these three teachers' factors towards effective teaching. Once again, the findings support and confirm the conclusion that the teachers' factors (course attendance, teaching experience, type of school performing) are predictors of secondary school teachers' effective teaching.

4. Conclusion and Implication

As parts of ongoing research in secondary school teaching, this article intended to identify the relationship between teachers' factors, that's teaching experience, type of school performing and attendance of professional development course with effective teaching. Furthermore the best predictor is obtained for the secondary school teachers' effective teaching. The findings provide constructive information and have implication to enlighten either administrators or teachers about the importance of professional development courses. From the insights provided, administrators manage to plan and conduct appropriate alternatives to help in strengthening teachers' effecting teaching. Teachers need to construct and upgrade knowledge continuously through attending professional development courses to improve practising in effective teaching.

Nevertheless, teaching experiences also can be accumulated by years to contribute as an extra valuable variable in teaching lives (Chia & Abdul Rahim, 2014). Experienced teachers' contributions are appreciated and hope can be shared with their peers or new teachers about their experiences in teaching line. This current study also lights up teachers' spirit especially those from low performing school to continue with their efforts without burn out along their teaching journey. Type of school performing is not much important link with effective teaching as majority think about. In addition, this finding enlighten parents and others parties who related to education about the importance of professional development course and teaching experience compare with type of school performing as assumed for all this while. "Every school can be a good school and every teacher can be an effective teacher." As a teacher, we need to construct ourselves continuously and teach effectively whatever and wherever we can because every student deserves to gain an effective teaching class and enjoy their learning for educational sustainability in the 21st century.

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Women Adaptive Capacity in Post Disaster Recovery in Indonesia

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Abstract

With an aim of identifying women coping capabilities in post disaster, the research objective of this paper is to analyze women resilience within the context of four primary sets of adaptive capacities – economic development, social capital, information and communication, and community competence. Such capabilities have enabled women in post disaster situations in Indonesia to adapt to post disaster situations, fostered acquisition of new skill that have enhanced their contribution to family livelihoods and communities, as well as post disaster socio and economic recovery. The paper points at some reason why women have their capability to return to even better life after disaster. It suggests that social capital, economic development, information and communication as well as cultural-based competence provide an effective and sustainable assistance to crisis-affected women. The originality of this paper is that the issue of women being vulnerable to disasters has gained strength in many reviews of disaster research. Nonetheless, based on results of this research, the notion of women vulnerability is discounted. Women resilience is enhanced in an environment that is characterized by robust availability, easy and quick access to resources, which can easily be deployed to reduce the impact of the disaster.

Keywords: adaptive capacity, resilience, post-disaster, Indonesia

1. Introduction

Disasters are all encompassing and affect everyone and everything without discrimination. A vulnerable location and population contribute to aggravating the adverse effects of a disaster. The section of the population which is vulnerable to disasters includes but not limited to, the elderly, children, women, the illiterate, people of low socio-economic status; those who lack political and social influence; the handicapped, and those who have low socio-economic status (Tierney, Lindell, & Perry, 2001). These people lack the access to assets, which can reduce the availability of insurance and result in complete losses when a disaster occurs. Unfortunately, poor populations often live in high-risk areas that are low-lying, and close to "floodplains, riverbanks, steep slopes," and have homes that are poorly built. This fact highlights the study of Cortis and Enarson, as quoted in Covington and Simpson (2006) that "ninety-eight percent of those killed and affected by natural disasters come from developing countries, underlining the link between poverty and vulnerability" (p. 19).

Indonesia is a country prone to natural disasters. The areas that are prone to natural disasters are found in nearly all regions of the country, right from the northern tip of Sumatra to northern Papua. Meanwhile, the earthquake that jolted Yogyakarta on May 27, 2006, and Merapi eruption in 2010, are some of the largest natural disasters the province has experienced. Both of these natural disasters inflicted many casualties, especially women, the elderly, and children. In addition to causing many casualties, the two disasters above disrupted livelihoods, wreaked a lot of damage to property and infrastructure.

In this case, the groups which were extremely vulnerable to the impact of disasters were women, children, elderly, and disabled people. They are the most dominant group as victims in the disaster. Physically, women and children are relatively weak, which hampers their ability to avoid and flee disaster-affected areas compared with adult males. As a result, women, children and the elderly become victims of the ferocity of disasters. Nonetheless, regardless of their social, economic, and cultural vulnerability, women have been found to be the most effective group in disaster response, both with respect to prevention and emergency. Women organizing efforts proved very useful in reducing the risk of disaster. Women often times stay at home, hence live in close proximity with the environment where the disaster occurs. This implies that spreading information through

women is very effective. The question is how to make the information that is delivered both accurate and precise. At the same time, disaster can turn women into resilient individuals in facing difficult and critical conditions. For example women who lost their husbands had to assume responsibilities of becoming household heads, with the implication that they have had to earn a living to sustain their families. Yet, disaster management more often than not pays little less attention to the needs and involvement of women. Once natural disaster recovery is done, many families are poverty–stricken, especially women. Sexual division of labor, has meant that women usually work in the informal sector, on one hand, while on the other hand, women may act as activators or agents of change that can respond to changes in the environment (Shiva & Mies, 1993). Women have an advantage in understanding and identifying basic needs of the family. To that end, the implementation of disaster risk reduction programs in vulnerable areas in the wake of earthquakes or volcanic eruptions is expected to improve the lives of women. This article discusses economic development, social capital, information and communication, and community competence of the crisis-affected women as a set of adaptive capacities in post disaster recovery.

2. Research Methods

This research employed a blended methodology of both qualitative and quantitative methods. The goal of this type of research is to provide "an in-depth and interpreted understanding of the social world of research participants by learning about their social and material circumstances, their experiences, perspectives and theories" regarding a disaster they had previously experienced (Snape & Spencer, 2003, p. 3). This research is an exploratory case study that concentrates on Wukirsari Village in Bantul District and Sleman District, Yogyakarta, Indonesia. Two villages were chosen based on the type of disaster women experienced and socio cultural characteristics. In Bantul, the selected location for the research is Giriloyo sub-village, Wukirsari, Bantul, which is the center of batik fabric production. This sub-village has a long history in the development of the batik industry. Women in Wukirsari village experienced the earthquake that jolted Bantul district in 2006 and caused the loss of 6000 lives while Sleman has had to cope with the volcanic eruption that occurred in 2010. While the research location for Sleman district is Pager Jurang sub-village, Kepuharjo, which is the center of *wedang Uwuh* (a traditional herbal drink) and instant ginger industry, which is a form of economical protection women use to support their families.

Two categories of data categories were gathered: primary data and secondary data. Primary data were collected through a survey that was distributed to 80 women, or 30 percent of data from women who have businesses in Cangkringan, Sleman and 133 women, or 10 percent of women who have businesses in Wukirsari, Bantul. The differentiation of the village's socio economic background allowed a more complete portrayal of both the cultural patterns occurring as well as the deeper issues on how women coped with and tried to become resilient to a disaster. In this study, the main respondents are women who have a job and have a personal income from their work. Those are women running small-scale firms that deal in Batik, leather, bamboo crafts, local food production, convenient stores, and handmade souvenirs. In other words, women in this research are women who are economically empowered and have access to resources. On the other hand, secondary data were collected from documents that were published by the government and NGOs and related to the 2006 Bantul Earthquake and 2010 Merapi Eruption. In order to make the critical data obtained from respondents and key informants more comprehensive, triangulation was done. This entailed conducting a series of in-depth interviews and focus group discussions (FGD) after the survey.

3. Literature Review

3.1 Women and Vulnerability

There is a long history of vulnerability research on identifying population groups which are most likely to experience the adverse effects of drought and other natural hazards or stresses triggered by social, economic or political forces (Cutter, 1996; Mbithi & Wisner, 1973; Reardon & Matlon, 1989). Women is one of the groups that are vulnerable to disasters. Most of the reviews suggest that women experience increased vulnerability before, during and after disaster. Women, according to Lambdin and Lambdin (2000) are categorized as a vulnerable population, which reflects the likelihood of being physically or emotionally wounded. It is helpful to understand the ways in which women are vulnerable to disasters; this is due to the fact that women are active and resourceful disaster responders but often regarded as helpless victims. There are many reasons that explain women's vulnerability to disasters. The lack of access to assets can reduce women's availability to insurance and result in complete losses when a disaster occurs. The significance of gender in disaster vulnerability is manifested in several ways. Fothergill (1998, p. 11) observes that women are disproportionately represented among those living in poverty, more often the primary care-givers in a family, and are most often the targets of

sexual and domestic violence, often bear the brunt of disaster hardship given that disaster "strips away the veil" that usually obscures or disguises many social conditions.

The issue of women being vulnerable in disasters has gained increased interest in the last few years, research conducted on this topic shows that women play important roles in all stages of disasters. There is need to identify and prepare vulnerable locations and populations. A vulnerable population is one that is "capable of being physically or emotionally wounded" (Lambdin & Lambdin, 2000). "Economic, racial/ethnic, and age stratification make some women needier than others before, during, and after disaster, both among and within cultures" (Enarson & Morrow, 1998, p. 5). Single mothers, elderly women (women have longer life expectancies than men), and women with low socioeconomic status may experience a higher amount of vulnerabilities than, for instance, a married, high socio-economic status woman would. Also, women with children are "likely to experience higher mortality rates in earthquake disasters, and their caregiving roles are intensified rather than abandoned during crisis. It is also true however, that a majority of the vulnerabilities women face are due to "the arrangements of societies that result in their poverty, political marginalization and dependence on men" (Scanlon, 1998, p. 49). A major issue women face during disasters is that they have less access to resources when compared to men, they do not have the strength of large social networks, they do not always have the authority to make major decisions, and, often times, they are forced to work with men (e.g. contractors, insurance agents, etc.) to help recover from disasters who do not want to comply and help women as much or as easily as they would assist other men.

Enarson and Morrow (1998) added that "women's economic vulnerability is often extreme, making them especially dependent upon disaster relief; but power differentials of gender, age, marital status, and family structure, as well as access to transportation affect who accesses the benefits of assistance programs" (p. 6). According to Scanlon (1998), women are treated differently in every stage of a disaster. Initially, women and children are evacuated and men are allowed to stay in the area, and immediately after the disaster has struck, men often times, will leave their families to "assist others and report to emergency agencies". Finally, in the relief and recovery stages, women can be "left out of the relief process and tend to be outside the 'old boys' network' and their ideas may be overlooked or perceived as suggestions rather than orders" (p. 46).

Another scholar such White (2007) highlights the fact that women more than men were found to have responded positively to earthquake aftershock warnings on virtually every indicator. Men and women also appear to respond differently in both to the warning and impact phases of disasters. Women more than men, give credence to warnings and want to evacuate in the face of an impending threat. In terms of preparedness behavior, a lot of extant literature also shows that women seek out hazard information more than men. They volunteer and take part in local preparedness programs and in community organizations addressing local environmental or technological hazards more often then men (Fothergill, 1998).

Women's ability to respond and adapt to disasters is a resource that can be used in planning disaster risk reduction programs. People who live in disaster-prone areas instinctively have their own way to respond to catastrophic events (Adger, Brooks, Bentham, Agnew, & Eriksen, 2004). This is because both sporadic and regular disastrous events require communities to be able to respond and adapt to disasters. This takes the form of a social system that is agreed and serves as a guideline in running their lives. The social system forms through social interactions, which grow and evolve based on the value agreed by all members of the community. However, in this postmodern era, mindset and values of people's lives have changed a lot toward the globalization paradigm hence no longer uphold sacred values in a social system. Poor community preparedness, especially among women attests to the extent to which local knowledge, which is based on the sensitivity in feeling the natural signs, is diminishing.

3.2 Adaptive Capacity

The primary focus of this paper is adaptive capacities that contribute to the emergence of community resilience. Community resilient refers to the time required the system to return to equilibrium once displaced (Bodin & Wiman, 2004). Across this definition, resilience then conceptualizes as an ability and adaptability (Pfefferbaum, Reissman, Pfefferbaum, Klomp, & Gurwitch, 2005). Community has the potential to function effectively and adapt successfully after disaster occurs. However, this condition could only be reached if the community has the capacity of resilience. Capacity of resilience occurs when resources are sufficiently robust, redundant, or rapid to buffer or counteract the effects of the stressor and adapts to the altered environment which manifest in wellness (Noris, Steven, Pfefferbaum, Wyche, & Pfefferbaum, 2008). Pelling (2003, p. 48) adds that the ability of individual and community to cope with or adapt to hazard stress would be formed the resilience community. Further Dovers and Handmer (1992, p. 270) distinguish societal resilience into three levels. They are resilience

through resistance to change; resilience through incremental change at the margins; and resilience through openness and adaptability.

The concept of resilience has been applied to describe the adaptive capacity of individual and community. Adaptive capacity is a linking process to a positive trajectory and adaptation after a disturbance, stress and adversity to create community resilient. Gunderson (2000) defines adaptive capacity as the property of the ecosystem that describes changes in stability landscapes and resilience. Noris et al (2008) add that adaptive capacities are resources with dynamic attributes, a point to which individual or community will return quickly. The concept of community resilience is thus intimately linked to the concept of adaptive capacity which focused on four primary sets of networked resources, which are economic development, social capital, information and communication, and community competence (Figure 1).
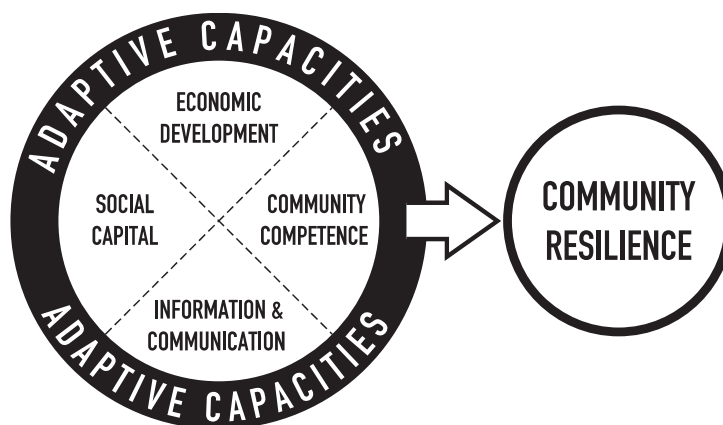
Figure 1. Networked Resources of Adaptive Capacity
Source: Developed from Noris et al (2008)

Firstly is economic development. Community resilience depends much on the diversity of economic resources. The capacities to distribute post-disaster resources to those who most need are important for community resilience. The parameter of economic development such as stability of livelihoods, equitable distribution of income and the availability of raw materials, physical capital, accessible housing, health services, schools, and employment opportunities would create the essential resource base of a resilient community. *Secondly* is social capital. The basic idea of social capital according to Lin (2001) is that individuals invest, access, and use resources embedded in social networks to gain return. It can also be defined as the aggregate of the actual or potential resources that are linked to possession of a durable network of relationships (Bourdieu, 1986). Social capital plays a significant role in forming the community resilience because it functions as an attitude of bonding (trust and belonging) and shared values with other members of one's group (Perkins, Hughey, & Speer, 2002, p. 37). By having sense of community, sense of connection and mutual concerns among others, it is assumed to be a dimension of community capacity. *Thirdly* is information and communication. Information and communication are the primary resource in technical and organizational systems that enables adaptive performance (Comfort, 2005) as well as essential for the nature of community resilience and capacity (Pfefferbaum et al., 2005) . These resources create common meanings, understandings and the provision of opportunities for community to articulate needs, views, and attitudes. *Fourthly* is community competence. Communities must be able to learn and identify potential risk that might be threaten them and work together to solve problems. Longstaff (2005) argued that the capacity to acquire trusted and accurate information, to reflect on that information critically, and to solve emerging problems is important for community resilience. Community competence relates to collective action, decision-making, capacities that stem from collective efficacy and empowerment (Noris et al., 2008).

4. Result and Discussion

4.1 Networked Resources of Adaptive Capacity: Economic Development

Post disaster condition has created an opportunity for women to start their own businesses which has diversified economic resources at their disposal. Research findings show that after disaster, there were hardly found any women who suffer from unemployment in Bantul and Sleman. Most women run small businesses dealing in

batik making, traditional foodstuffs, leather or bamboo crafting. However, in Sleman, women chose to work in the informal sector activities such as serving as porters. On the other hand, damage and destruction left in the wake of the disaster, had an effect on the way businesses are run by women in both places. This is especially so with respect to the availability of raw materials and workshop, difficulty in finding new markets, and shortage of capital. To overcome such barriers, women have reacted by adopting the strategy of marketing their products using online coupled with forming a business group which is the requirement form them to eligible for government and private assistance. This further confirms what Holman and Silver (1998) and Schwarzer, Hahn and Schoder (1994) noted to the effect that the higher the frequency of exposure to catastrophic events a community experiences, the stronger and resilient that community becomes in adapting to any form of change and challenges that occur. However, disaster resilient women in Sleman are still on the second level of disaster resilient communities, which according to Tobin (1999) is a community that still requires attention from others to survive.

Women resilience to disasters is also attributable to cultural factors that make them feel shamed if they do not engage in work or just stay at home without contributing to family wellbeing. Seeing the success of other women and acquiring training, women in Sleman expressed strong motivation to become successful persons who have the ability to overcome disaster related problems. The positive response of the community has created a coterie of resilient women in facing the disaster. The resilience women from the disaster in Sleman are discernible from their acceptance to disasters, adaptive and ability to use internal resources and their expertise to manage the challenges and changes that occur after a disaster.

The high poverty rate prior to disasters, playing subservient roles in the labor force, largely employed in informal sector, land rights regime that was biased against them, and shouldered extensive domestic responsibilities, meant that women in the two districts were economically vulnerable long before natural disasters occurred. Prior to the advent of the disaster, the majority of women in this study in both Sleman and Bantul, managed a business or were employees in other economic activities. They worked as batik or leather craftswomen in Wukirsari village, Bantul, while in Sleman, women worked as dairy farmers, selling their milk to cooperatives in the area. Unfortunately, disasters disrupted their trades and markets, destroyed productive resources and infrastructure, and made life more difficult for workingwomen thrive through the crisis. To that end, restoration of economic resources and capacities of women are crucial for long-term recovery even as they continue to consider their roles as wives, mothers and community members.

4.2 Social Capital

In disaster situations, where access to many resources is compromised, social capital becomes a more significant element in recovery. Social capital, as it is used here, follows Lin (2000, p. 786), who defines it as the "investment and use of embedded resources in social relations for expected returns." An individual's participation and investment in social interactions and reciprocal relations with other individuals establishes a person's "social network," within which social capital is created, held and accessed. The breadth and strength of social networks is highly variable, and can be influenced by numerous factors. For example, gender, household composition, and economic circumstances all have an effect on the way a person relates to others to create, maintain and utilize social networks and associated social capital.

This study focused on social capital from the vantage point of the existence and role of local institutions, values and norms that exist in the community and response to disasters. At the institutional level, many local institutions are in place in both villages. Most women are actively involved in social groups. Thus, this social group has become a local institution that serves as a strategic medium for exchanging experiences and information, including information on disasters. It should be noted that although obtaining information through one's social network is a daily practice for most people, the importance of a person's social network increases in circumstances where usual methods of information sharing and resource obtainment are no longer available. Disaster situations may impose stress on these networks because such events often affect broad areas and large numbers of people who would otherwise be networked together socially. Thus, social capital developed through informal associations can prove more viable when the integrity of formal systems is compromised.

Besides, the existence of social relations among citizens is also another manifestation of social capital. The intensity of social relations between people is a good measure of the level of social capital in the community. Culture in rural communities has an impact on the intensity of social interactions within the community. Within a relatively homogeneous society, culture, religion and employment naturally lead to the formation of social relations. Study results showed that social group meetings were held frequently to discuss various things about lives of members as well as the availability and distribution of childcare responsibilities after disaster. Informal

meetings that take place between members of the community may be able to strengthen the potential of understanding and knowledge of citizens about disaster information. Moreover, the process of delivering information about the disaster increases the effectiveness of interaction among community members. In any case, informal atmosphere and casual relationships increases the understanding and acceptability of citizens about disaster information.

Given that post-disaster settings underscore the importance of social inequalities, research results point to the fact that inequalities are likely to affect a person's capabilities and strategies to use social capital after a disaster (Cutter & Emrich, 2006; Lin, 2000). Dynes (2006, p. 23) identifies social capital as an active resource in disaster recovery and, "since social capital theory links the consequences of individual action to social resources, such a linkage holds the possibility of explaining individual 'trauma' and individual resilience to disaster." Study results confirmed the above findings. The value of gotong *royong*, which involves working voluntarily among community members, in both Wukirsari and in Kepuharjo, is very strong. The contribution of social capital in Bantul's disaster recovery program, for instance, can be gleaned from the practices of the community that involved working voluntarily in building houses and infrastructure facilities (Kusumasari & Alam, 2012). However, leading social capital theorists such as Bourdieu (1986), Coleman (1990), and Lin (2001) demonstrate that, while it can be a useful resource, social capital is not equally available to all people because it functions through social systems of inequality. Hence, forms of social capital that found in this research play an important role in a post-disaster situation.

4.3 Information and Communication

One way to look at the role of women in disaster management is to determine the extent to which women understand and have the ability to categorize conditions in areas where they live as hazardous or not. The results of this research showed that more than 80 percent of women in Sleman were aware of the fact that their area was prone to disasters and also know the signs of disaster. In contrast, Bantul produced results that were the opposite. The knowledge of women about the signs of disaster continues to be very low even though they realize that the area where they live is a disaster-prone area.

The different level of knowledge between women in Sleman and Bantul is attributable to the different nature of the disaster that occurred. Sleman women are accustomed to Merapi a eruption disaster, which is periodic, in nature. The experience women have gained in facing eruptions has enabled Sleman women to acquire learning about the warning signs that appear prior to every eruption. In addition, the government has overtime strengthened the capacity of local communities or other organizations that are concerned about the danger of Merapi. In this study, results showed that the involvement of women in Bantul and Sleman, especially in disaster management is still very low. Women participation in some activities, such as conducting vulnerability analysis, disaster response and emergency response training was below 4 percent. Women participation was only relatively high in the activity that related to the provision of logistics for disasters, hovering about 10 percent. However, it is worth noting that mitigation activities that are designed by local authorities involve both men and women. This is particularly so with respect to emergency response training in Sleman that achieved 100% of participation rate and the designing of the evacuation route map in Bantul, which involved both men and women. That said, male involvement in disaster mitigation, especially in the provision of facilities and infrastructure for disaster management in Sleman and designing evacuation route map in Bantul, was nearly 40 percent.

Women participation in disaster management, is one the one of the important factors that determines the influence they have on the form, shape, and nature of disaster management. Lessons learned by women in Bantul and Sleman from their experiences in natural disasters has become a vital source of awareness to enhance the capacity of women to manage disasters, including equipping themselves with information on disaster. Do women and men obtain information differently? Based on various studies, it was found that adult men, teenage boys, teenage girls, adult women, the elderly, and children are the core of the dissemination of information, socialization of disaster and mitigation activities, as well as disaster response (Fatimah, 2008). Exploring the experience of women in both sub-districts, Wukirsari, Bantul or Kepuharjo, Sleman, shows that access to information, dissemination, and knowledge is closely related to the division of space and roles between gender and age. Adult male who have more roles in public spaces as well as considered to have higher physical mobility, have more opportunity to access information about the disaster and are more engaged in disaster mitigation activities. Thus, male gender is closely related to disaster management in such issues as evacuation, simulation, and emergency response activities

This research has provided valuable lessons learned with respect to the importance of involving women in disaster management in general and disaster preparedness and mitigation activities, in particular. Firstly, women

are well versed with their area and have the ability to learn to undertake social analysis, especially on demographics. Secondly, women were able to learn ways of identifying the risks that exist in the area where they live and it is hoped that women can help children to become aware and do various activities that contribute to reducing disaster risks. Thirdly, active involvement of women in disaster management activities enables them to internalize lessons they learn from those activities into their subconscious selves. Therefore, in the event of a disaster, women in the location can quickly decide the right way to escape. Lastly, the involvement of women helps to reduce the negative post disaster effects.

4.4 Community Competence

One concern that creates risky conditions for women is "household size and structure and power relations in kinship and marriage especially in contexts of divorce, desertion, widowhood and single mothering" (Enarson, 1998; p. 161). The responsibility of women for household members significantly influences their disaster work. This is more so if they are single household heads, which affects their decisions to prepare and to evacuate. Results of this study attested to this fact. Women reported spending little time to help in cleaning up the community and instead, focused more on their households. In addition, women reported playing greater role in disaster preparedness than men. Women explained having the task of developing household disaster action plans and practicing them more often than men, while men reported higher rates of understanding their community's warning systems and keeping up with the weather reports.

Survey results also portrayed women's capacity to anticipate disasters. More than 75 percent of women chose to seek safety for themselves and their family rather than property and their livestock. In fact, what happened in Sleman was that the long duration of Merapi eruption, created uncertainty for the livelihoods of the displaced persons, both their lives in displaced camps and abandoned property. Livestock is an important property for the displaced persons as most of them earn a living from farming. People who live on the slopes of Merapi are willing to risk their lives in order to ensure the safety of their livestock. To that end, the government was concerned about this phenomenon, as it had the potential danger to increase the number of casualties from the eruption. As a response, on 5 November 2010, the central government issued a circular that contained commitment to buy all the cattle in all areas affected by the disaster as well as disaster-prone areas. The findings of this research also highlight the extent to which previous disaster experience and women 'inherited' capabilities have significant impact on disaster recovery. The pain of suffering from the adverse effects of disasters has contributed to the creation of women's inner strength and physical resiliency.

5. Conclusion

In any disaster event, women fall into groups of people who face various vulnerabilities: physical, economic, social, and environmental vulnerability. However, the frequent exposure to natural disasters, which women face, has shaped them to become stronger and more resilient in adapting to any form of change and challenges that occur. This research has elaborated the adaptation capacity of women in Bantul and Sleman, Indonesia, viewed with respect to contribution to economic activities, social capital, dissemination of information and communication and enhancing community wellbeing.

In terms of economic development, this study precisely shows that women in both places are significant economic actors who have businesses that contributed to mitigating the shock of the disaster on incomes of their families. In fact, women generated income that contributed most to livelihoods of their families.

In the context of social capital, Violanti, Paton and Dunning (2000) identified the variables that are capable of predicting the resilience of a community to disaster. The variables include, having sense of community, coping ability, self efficacy and social support. In terms of having a sense of community, women in Bantul and Sleman have an attachment to their neighborhood, which is reflected in helping and working with others in providing logistics. Their coping ability is reflected in the way women develop new techniques for batik making, create new markets using an online system, and having informal jobs that are completely different from their previous ones. By running their own small businesses that support almost 80 percent of their family income, inevitably raised women's self-efficacy. Women in both locations have become less dependent on men. Moreover, the behavior of not remaining silent amidst the crisis is also a form of resiliency of women to the disaster. Social support has also played an important role in making the community resilient to the disaster. This is because women in both locations received a lot of support from the government, NGOs, and the private sector. The assistance was vital for supporting women to move on from crisis.

In terms of information and communication, women can serve as social marketers. This entails the involvement of women and teaching them disaster related knowledge as early as possible. Despite the fact that women belong to the category that is vulnerable to disasters, they can serve as agents of change. Thus, empowering women

enhances their ability to survive whenever disasters occur, while at the same time protecting themselves and people around them from disasters. The expectation is that the involvement of women in various mitigation and disaster response activities should minimize the adverse effects of a catastrophic event.

In the context of community competence, the experience of women in Bantul and Sleman who have been exposed to the disaster has enabled them to become more sensitive and concerned about signs of disaster. The combination of many programs run by the government and NGOs in mitigation and preparedness, has also contributed to enhancing the knowledge of women about disaster education. Environmental vulnerability also affects the vulnerability of a society. In the sense that women who live on the slopes of Merapi will always be living in danger of eruption, while those who live in Bantul will always face vulnerability to earthquakes, fires, floods or landslides. The awareness of women who live in disaster-prone areas should be addressed by, for example, building earthquake-resistant residences such as those in Bantul. With respect to all aspects of vulnerability, women in Wukirsari village, Bantul and Kepuharjo village, Sleman do not fall into the category of women who are vulnerable, but on the contrary, women in both regions, have demonstrated their ability to adapt to disasters. This is very much in line with Pelling (2003) , who notes that women's ability to cope with natural disasters depends on their capacity to survive. In such situation, individuals either have to return to previous conditions that require integrating some new activities into the 'old' or adapting to the new environment that ensues in the wake of the disaster. Women in Bantul and Sleman attest to being empowered and demonstrate high self–esteem which qualities are reflected in their skills, expertise, and doing new jobs that are starkly different from those they had prior to the disaster. Moreover, the ability to generate income for their families has lessened the dependency of women on men.

Acknowledgment

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Significance of Teachers and Education in Promoting National Economic Development: A Case Study of Pakistan

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Abstract

The key objective of the present paper is to highlight the consequence of education along with the importance of teacher in education and its overall influence on the national economic development Pakistan. It is crystal clear that the role of education and teachers has become more important in improving human capital and consequently has a positive impact on the national development and prosperity. The results of this study show that teachers in all level including primary school, middle school teacher and high school teacher play a positive and statistically significant role in promoting national economic development. Therefore, these findings have some important policy implications. The government of Pakistan at both the federal and provincial levels needs to formulate appropriate and education promoting oriented policy in order to encourage education and increase quality trained teachers in the country. Consequently, it will further help to promote overall economy performance and largely mitigate poverty and improve social welfare in the country.

Keywords: education, teachers role, national economic development, Pakistan

1. Introduction

Teachers in Islam are given a number of different titles such as Shaykh or 'Aalim in Arabic. In Islam, the importance of teacher is highly valuable and visible. The holy prophet Hazrat Muhammad (PBUH) said that "It is compulsory for every Muslim men and women to acquire knowledge." The holy prophet Hazrat Muhammad (PBUH) tells the Muslims that seeking knowledge is an obligation for believing every men and women even if that means traveling to China. These ideals have led Muslims to travel in search of knowledge to study with various teachers throughout the world. Similarly, Hazrat Ali R. A. said "One who taught me a single word, made me his salve." Hence, role of the teacher comprises pedagogical, academic, and social. Teachers are representative of the society who teaches ethical guidelines. Nobody can have an impact more deep than that of teachers. Students deeply touch by the teacher's love, affection, character, competence, and his ethical commitment. Teachers are nation builders. Popular teacher becomes an ideal for his students. Students also try to observe their teacher in his manners, politeness, traditions, get up and his conversation style. Teacher is the pillar of the society and the country. No country can progress, without talented, noble and good teachers. Teacher impacts the young minds of-the youth. Teacher's devotion, love and martyrs show us the right track and it is our dear teachers who polish our personality, our character, and show us the right path which clues us to our final terminus. For the development of a country, great nations has to be paid special attention to education and learning as well as good morals, and it is impossible without the contribution of a humble teachers.

Good teacher is one who observes his purpose in teaching as existence one of deliverance rather than regulatory students. In the words of Datta (1988) "a profession is an occupation of a special kind three aspects of which are conventionally emphasized namely: expertise, self-determination and public identifying". In a study Shah (2002) notes his views that teacher education is that knowledge, ability and skill which is related to the life of "teacher as a teacher". According to Sarita and Tomar (2004) teaching is an artistic, intellectually demanding and pleasing job, so the values of this job must be too high. Expert can make teaching look easy though they have learned their abilities and enhanced them through practice, training, and evaluation. Initial training lays the foundation for succeeding professional and career development. Teacher education is very significant talent for conveying quality improvement in education. It is only teachers who have a vital role in the development of a nation. In teacher education, field many new tendencies and revolutions have appeared. In the area of teacher

education there are new policies, procedures and practices (Rao & Rao, 2005). In a similar way, according to Rashid, *et al.* (2014) teachers are not born but are created, their training and education both focuses and help to control the class for the improved and effective distribution of gratified. It is also invited the students about the critical nature of content which they want to put in exercise in the animate conditions.

The significance of education is crystal clear and proven also from Islam "To seek knowledge is a sacred duty; it is obligatory on every Muslim, male and female. The first word revealed of the Quran was "Iqra" READ: Seek knowledge! Educate yourselves! Be educated." Similarly, "are those equal, those who know and those who do not know?" (Surah Az-Zumr, ayat 9) "Allah grants wisdom to whom he pleases and to whom wisdom is granted indeed he receives an overflowing benefit" (Surah Al-Baqarah, ayat 269). Humans are different from other species because of education. It is the embodiment, the appearance and the personification of humankind. Satisfaction of the physical needs is only one factor of human presence, fulfillment of the reasoning, emotional and nonphysical wants is the second and possibly a more significant aspect of our survival. Education gives to the fulfillment of both the desires. Great philosophers and leaders have stressed the need and importance of education since old time. Every civilization and every society laid a finest on education. The civilizations whose realized it and sustained to progress in the educational fields were also the leaders of the world (Ahmed, 2000).

Obviously, education helps you to understand physically better, it assistances you to comprehend your potential, talents, abilities and qualities as a human being. Education introduces you to different religions, cultures, and thought. Education also provides a walking stone to the actual world; present numerous different courses on proper life planning, financial techniques, and personal development. In a study, Farah *et al.* (2014a: 912) notes that "Education plays a paramount role in the development of a society. Teachers are those selected people who having the candle of enlightenment, knowledge and the key to success. The success of a nation depends upon the success of education system, while the success of education system depends upon the quality of teachers, where, the quality of teachers based on the quality of teacher training." In another study by, Farah *et al.* (2014b) shed light on the significance of teacher education descriptively in the context of three countries namely Afghanistan, Iran and Pakistan. Similar, Muhammad and Chandra (2014), notes that Asian countries including Pakistan is suffered from corruption which affect the process of economic development and it need to be mitigated. It is also believed that less developed countries needs to invest more in education and training; consequently it will get better human capital and economic growth and development. So the ultimate result would be improved the level of social welfare.

According to the ASER (2013) report, there is total 3959 government/public and 1694 private schools exist in 138 rural districts of Pakistan. Where, 30-40% teachers of public schools have passed graduation as compared to 39% teachers of private schools. Likewise 40% of public school teachers had Bachelors in Education (B.Ed.) degrees; while in the private school this ratio is estimated 46% (Government of Pakistan, Economy Survey 2013-14). Government of Pakistan, Economy Survey (2013-14) reveals that there were functional almost 158.6 thousands primary schools with 427.7 thousands teachers during 2012-13 at national level. At the same time as, in a total of 42.1 thousand middle schools where almost total 362.6 thousand teachers were working in the entire country during 2012-13. Similarly, a total of 489.6 thousand teachers were working in almost 29.8 thousand secondary schools in Pakistan during 2012-13. Further, at national level during 2012-13, a total of 130.1 thousand teachers were serviceable in a total of 4.9 thousand higher secondary schools and inter colleges in the whole country. In a similar vein, the total teachers during 2012-13 were recorded at 1.55 million as compared to 1.46 million during 2011-12, whereas it exposing a rise of 6.2 percent. However, it is expected that this number of teachers to be rise further up to 1.62 million during 2013-14.

The ultimate goal of every state is to ensure desirable level of national economic development. Where, the economy of Pakistan like other countries also confront of many administrative, economic, socio and political problems. Therefore, by prompting education, and human capital, it is hope that social welfare supposed to be increased and national development will be enhanced. Pakistan is a developing country where though natural resources are abundant but can utilize it due to lack of financial resources and human resources. In a study Muhammad and Salim (2014) reveals that Pakistan also suffers from inflation which needs to be controlled in order to boost economic development process. Therefore, development of human resources is indispensable for promoting national economic development and social welfare of Pakistan. The main objective of this study is to know about the importance of teachers, the importance of teachers training, the significance of education and analyze the role teacher education in social welfare promotion of Pakistan. This study will contribute on the role of teacher and education in the development and prosperity of Pakistan.

2. Review of Literature

Numerous writers, authors and scholars have recognized different determining factor of education quality. The study of Cheng and Cheung (1997) reveals that quality of education is a set of components comprising input, process and output of education system. One another important model of quality of education has been given by UNICEF (2000) which includes five dimensions i.e. quality content, quality processes, quality learners, quality learning environments, and quality outcomes. Ozturk (2001) mentioned in his study that education in every sense is one of the major factors of development. In human capital no country can succeed maintainable economic development without considerable investment. According to him through education people improves understanding of themselves and world and also improves the quality of their lives. Education increases people's productivity, efficiency, creativity, vision and overall education plays a vital role in securing economic and social development and also improving income supply. Nonetheless, the importance of education in society is very necessary and cohering. In real sense, education is to civilize humanity, and to make life enlightened. It is very significant for the development of individual and whole society and it is also through education that man become broad-minded in his thinking, problem solving, socially and ethically rich, expressively and emotionally established, morally honest, mentally and spiritually aware, mentally and physically healthy and strong, horizon broad, self-confident, effectively social, mentally progressive, and tolerable level of behavior. Indeed it is difficult to define the quality of education mainly because of large number of investors involved in schooling and multifaceted nature of teaching-learning process (Mirza, 2003).

Education is extensively documented as an important to processes of poverty reduction. Burtch (2006) study indicates that education is an important force in economic, social, cultural and intellectual empowerment. According to Jaiyeoba (2007) its value in conveying about character and attitudinal change statuses as important as its ability to redesign human potentials for needed development. Lasker, *et al.* (2001), stated in his study that education is one of the machines to authorize people to take part in poverty lessening. Augmented the education is a resources to attain development and to solve the rural problems. Education and Poverty are inconsistently connected to each other: if one is enhanced, the other is reduced. It is observed that education is the most influential weapon in lessening poverty, raising economic growth, creating skillful human resource, producing a healthy and progressive social environment and also creating self-sufficient nations.

In a study Lin (2006) finds that primary, secondary and tertiary education has statistically positive influence on economic development and growth in Taiwan. Azam and Khattak (2009) find insignificant results on the human capital measured by secondary school enrolment on economic growth in Pakistan. Similarly, Huang, F., Jin, L., & Sun, X. (2009) examine the long and short run interactional mechanism between higher education and economic growth in China over the period from1972 to 2007. The study finds that higher education has a positive and significant relationship with economic development measured by GDP per capita during the period under the study. In case of Guatemala, Loening, *et al.* (2010) observes that primary education is relatively more significant than secondary and tertiary education. The study of Shaihani, *et al.* (2011) indicates that in the short run merely secondary education has a statistically significant and positive impact on economic development of Malaysia, whereas the primary and tertiary education display inverse results.

The impact of human capital measured by secondary school on economic growth during 1995-2011 for Azerbaijan and Kazakhstan have been investigates and found positive significant relationship between these two variables (Azam, 2013). In a seven Asian countries study, Azam, *et al.* (2014) reveals that secondary school gross enrollment ratio as proxy for human capital has a positive and significant relationship with economic growth and development during 1990-2012. The study of Abu et al. (2014) finds that education is an important factor contributes into economic growth of Malaysia during 1975-2013. Odior (2014) evaluate possible effect of government spending policy on education and poverty alleviation in Nigeria. The study finds that the re-allocation of government spending to education sector is vital in determine economic development and the decrease of poverty in Nigeria. Pegkas (2014) investigates the relationship between educational levels and economic development (GDP), where the potential effects of the various educational levels on economic development in Greece for the period of 1960-2009. The empirical results indicate that there is a long-run association between educational levels and economic development. The inclusive result reveals that secondary and higher education have had a significantly positive effect on economic development. Though, the contribution of primary education in economic development found is minimal. The study of Azam and Ather (2015) mention that the findings support the hypothesis of the study by confirming that human capital development is important for economic development of Commonwealth of Independent States over the period 1993- 2011.

3. Materials and Method

This part of the study is based on secondary data. For experimental analysis, annual data covering the period of 1971-72 to 2013-14 are used. The data have been obtained from Federal Bureau of Statistics (FBS) 50 Years of Pakistan in Statistics, State Bank of Pakistan Handbook, 2010, and Government of Pakistan, Economic Survey (2013-14). Where, the data are in thousand on primary, middle and high schools teachers in educational institutions in Pakistan. Similarly, the data on Gross Domestic Product per capita are in constant and million Pak rupees.

In order to investigate the impact of primary school, middle school, and high school teacher on economic development in Pakistan, the following regression model is proposed to be used.

GDPPCI= f (primary school teachers (PST), middle school teachers (MST), high school teachers (HTT))   (1)

Equation (1) can also be written as follows:

$$GDPPCI=\ a+bX+e\ \ \ \ldots\ldots\ldots\ldots\ldots\ldots.. \qquad (2)$$

In the above equations, GDPPCI is per capita GDP as dependent variables, whereas, X denotes primary school teachers, middle school teachers, and high school teachers which are independent variables. In equation (2) e is error term and show effect of all other factors which are not included in the model. This study used the method of ordinary least squares (OLS) as an analytical techniques for parameters estimation. For computation purpose the EView 3.1 statistical software is used.

4. Results and Data Analysis

Results are reported in Table 1, 2, 3 and Table 4 in details. We provide results separately on each independent variable namely primary school teachers, middle school teachers, and high school teachers in order to know about their individual effect on the dependent variable. Table 1 shows descriptive statistics of all variables used in this study. It is evident from Table 1 that maximum per capita GDP of Pakistan is PKR 57.41 million, where the minimum is PKR 788.

Table 1. Descriptive statistics

	GDPPCI	PST	MST	HST
Mean	20.19212	297.6721	153.9093	209.1326
Median	10.01500	332.5000	119.0000	165.6000
Maximum	57.41000	465.3000	373.9000	505.1000
Minimum	0.788000	105.7000	36.00000	40.20000
Std. Dev.	20.15437	131.8553	113.5064	147.6303
Probability	0.048475	0.073519	0.082677	0.115122
Observations	43	43	43	43

Results on the impact of primary school teachers on economic development are given in Table 2. The model is good fit where the coefficient of determination (R^2) value is 0.74, it show that 74 variation in the dependent variable explain by the independent variable primary school teachers. Table 2 further reveals that there is a positive and statistically significant relationship between primary school teacher and economic development. The estimated coefficient size is 0.131, it imply that one unit change in this variable will bring 13 percentage point change in the dependent variables.

Table 2. Regression results on the impact of primary school teachers on economic development

Dependent Variable: GDPPCI			
observations: 43			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PST	0.131906[*]	0.012061	10.93625	0.0000
Constant	-19.07268	3.919301	-4.866347	0.0000
R-squared	0.744710	Mean dependent var		20.19212
Adjusted R-squared	0.738483	S.D. dependent var		20.15437
S.E. of regression	10.30669	F-statistic		119.6015

Note: Asterisk * show significant al 1 percent level of significance

Table 3 shows empirical result on the effect of middle school teacher on economic development in Pakistan. The R^2 value is 0.98 which reveals that 98 percent variation is explain by the independent variable high school teacher in dependent variable per capita GDP. The effect of middle school on economic development is positive and statistically significant at 1% level of significance. The estimated coefficient size found is 0.176, it suggesting that one unit change in this variable will bring 17 percentage unit changes in the dependent variable.

Table 3. Regression results on the impact of middle school teacher on economic development

Dependent Variable: GDPPCI			
Observations: 43			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
MST	0.176142[*]	0.003500	50.33010	0.0000
Constant	-6.917745	0.666532	-10.37871	0.0000
R-squared	0.984072	Mean dependent var		20.19212
Adjusted R-squared	0.983684	S.D. dependent var		20.15437
S.E. of regression	2.574421	F-statistic		2533.119

Note: Asterisk * show significant al 1 percent level of significance

Results on the impact of high school teacher on economic development are reported in Table 4. Where the R^2 value is 0.96, it indicating that 96 percent variation explicate by the independent variable in dependent variable. The influence of high school teacher on economic development is found positive and statistically significant at 1% level of significance. The coefficient size is 0.133, implying that one change in high school teachers will bring 13 percentage unit changes in the dependent variable per capita GDP used as measurement for economic development or and/ poverty reduction in Pakistan during the period under the study. These finding reveals that the encouragement human capital through teacher enhancement along with teacher training promotion is highly indispensable for the development of Pakistan and it will certainly mitigate poverty in the country as well.

Table 4. Regression results on the impact of high school teacher on economic development

Dependent Variable: PCI			
Method: Least Squares			
Date: 12/16/14 Time: 20:56			
Sample: 1972 2014			
Included observations: 43			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
HST	0.133756[*]	0.004268	31.33738	0.0000
Constant	-7.780525	1.088396	-7.148617	0.0000
R-squared	0.959923	Mean dependent var		20.19212
Adjusted R-squared	0.958946	S.D. dependent var		20.15437
S.E. of regression	4.083658	F-statistic		982.0315

Note: Asterisk * show significant al 1 percent level of significance

5. Findings and Conclusion

The central objective of the present paper is to understand the consequence of education, the significance of teacher in education and its overall influence on the national economic development of Pakistan. It is obvious, that education is a form of wisdom where the knowledge, skill, understanding and behaviors of class people are transferred through education, instruction and training. Therefore, the role of education and teachers' education has become more important to improve human capital and consequently it will have a positive impact on the development and prosperity of any country like Pakistan.

The empirical results of this study reveals that teachers in all level including primary school teachers, middle school teachers and high school teachers play a positive and statistically significant role in promoting national

economic development and as a results poverty reduction. Therefore, these findings have some important policy implications. The management authorities of Pakistan at federal level and provincial levels needs to pursue prudent and education promoting oriented policy in order to promote education and increase quality trained teachers in the country. Consequently, it will further help to promote overall economy performance and will improve social welfare of the society in the country.

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Conduciveness of Women Social Setting in Traditional Iranian Bazaar from Functional Dimension

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Abstract

Iranian traditional Bazaars are not just physical settings for everyday commercial activities. They are places of communal life especially for women and provide the main daily sources of their outdoor recreations. The research hypothesize that there is a serious lack of sensitivity to the cultural values, especially for women within modern Iranian market places. In this regard, the aim of this research was in filling this gap and describing the relationship between women communal life and urban public spaces. To reach the aim, this study was conducted among middle-aged Iranian women within the Iranian traditional Bazaar of Isfahan (as the most public urban space in the Iranian cities). To increase the accuracy of findings, the data collection methods through triangulation were unobtrusive behavioral observation of women communal life within two selected settings, semi-structured single face to face women interviews (n=24), semi-structured focus group interviews (n=5), and taking photographs. In order to analyze the collected data, a qualitative content analysis and descriptive analysis were used. The finding of the research showed that the social settings of traditional Isfahan Bazaar are proper for women communal life functionally.

Keywords: traditional Iranian Bazaar, women communal life, culture, environmental quality, good urban spaces

1. Introduction

In its most fundamental form, culture consists of norms that shape life conditions, behavior, interactions of humans. These norms are transformed to unwritten rules over time and become common in more or less formal ways in order to control people's lifestyle and behavior. Ralph (1978) asserts that from an anthropological point of view, culture means methodology of people's lifestyle and their behavioral patterns, in a way that culture lies in the center of human behavior (Altman et al., 1980). In other words, culture is internalized through human activities and communications and is accepted in the form of lifestyle (Rapoport, 1980). That is, built environment always exist in the context of a culture and is part of it (Parsons, 1975). Thus, it can be concluded that the relationship between culture and environment is a complicated relationship in which it is not possible to determine unilateral and simple relationships. On the other hand, cultural values, influence people's understanding and viewpoint about environment and consequently influence space design (Altman et al., 1980).

Space has been defined in numerous ways in different historical eras based on social and cultural approaches (Golkaar, 2005). Space doesn't express any characteristics in its concept alone, but as soon as a group of humans start an activity in a place, the symbolic meaning of space is established. In this regard, space is a context to practice activities and human behaviors, and a place to merge imagination with reality (Khalili et al., 2014). In other word, space provides some opportunities and constraints which people choose based on their cultural criteria (Gans, 1968). Therefore, public urban spaces provide different conditions for activity formation depending on cultural framework, time and space. Using and attributing public spaces is an experience that is not the same for everyone; because variables such as age, gender, social, ethnic, and racial groups influence on how urban life is understood. To sum up and from a socio-cultural point of view, urban spaces are defined as places for outside events and communications, social interactions between different groups with dissimilar demands

and likes (Burton et al., 2006). Public space is also defined as open-minded space, because these spaces are built for different functions such as the unpredictable, performing various activities, and the citizen's tendency to pave the way for these spaces to meet their needs (Wekerle, 2005).

1.1 Women, Social life, and Urban Space

Considering the fact that more than half of the population of societies consists of women and their social roles are developing, thus, it can be said that, the presence of women in urban spaces has become a necessity. Therefore, urban spaces should have some capabilities for providing an opportunity for women's presence and be supportive of women communal life. In other words, it can be said that urban spaces are very important in recognizing women's activities and social relationships, explaining the concept of space, place, and the areas where relationships are established. However, because men's and women's communal life is formed simultaneously in these spaces, conduciveness of urban spaces for women, as vulnerable people in a society, means that those spaces are also conducive for others (Kazemi Motlagh, 2010). In other words it is necessary that all groups be present in space and facilities be provided for the presence of all users regardless of their gender, age, social class, etc. (Garcia Ramon et al., 2004).

Further, the interrelationship between space and gender is expressed in an environment in the form of the reflection of gender beliefs and introvert architecture. It formulates the formation of values and closed gender roles inside closed introvert space. The structure of gender relations and the role of men and women in the type of an extrovert body, in comparison to an introvert type, have relatively open characteristics. In other words, the relationship between components in each social system is reciprocal and all phenomena are mutually and continuously interacting with each other. Therefore, spaces as a phenomenon and gender as another one mutually affect each other. In this regard, the contents related to gender have been mentioned above as one side of this relationship. Therefore, the active role of space as the context for social interactions should be considered as the other side of this relationship (Rendell, 2001). In fact, space is an active factor in the process of the formation of this structure, while it reflects the structure of gender. These spaces effectively play a role in providing a context for people's presence and its continuity, with the use of their proper features which are the result of appropriate reflection of values, culture, beliefs, and social systems (Nayyeri Fallah et al., 2015). Thus, it can be concluded that gender should be considered as a social structure and space as a physical-social structure, as two components that affect the formation of social life in urban public spaces.

1.2 Conducive Urban Space from Environmental Quality Perspective

The extent of social life formation and interactions between users of public urban spaces reflect the quality of a space. However, owing to improvement of spatial quality, social and optional activities also take place in the space because in this situation people are more interested in staying in the space and, therefore, there will be more time for different activities to occur (Carmona, 2008; Gehl, 2004; Whyte & Nocera, 2002). Consequently, occurrence of various optional activities in space shows higher environmental quality of that space.

Some researchers consider environmental quality as equivalent to the fulfillment of human needs and social justice and some consider it equivalent and compatible with human environment (Lang, 1987; Lynch, 1984). In this respect, two approaches of design-oriented and plan-oriented approaches are common in the evaluation of the quality of environment, and considering the nature of the aim and theoretical framework of this study. The design-oriented approach will be applied in the analysis of the selected public spaces in this study. The attitude towards the quality of environment in the synthesized approach is to achieve the environmental features that while meeting human needs, provide the opportunity for social life to be formed in public spaces and allow for making a proper relationship between man and environment.

Based on the approach of this study, which is a combination of human and spatial needs in a design-oriented approach, environmental comfort is one of the important and fundamental components in achieving the desired communal life (Gehl, 2004; Lynch, 1984). Therefore, providing the necessary condition for comfort is one of the main parts in designing communal spaces. In other words, an attempt at achieving environmental comfort is an effort to meet human physiological needs. One of these important criteria is providing climate comfort which means the existence of shelter and protection against natural elements such as wind, rain, and sunlight. Another criterion is the existence of proper lighting solutions. This component provides the space with more capability of protecting users. The availability of proper facilities such as proper urban furniture, toilets, drinking fountains, retail shops, and food distribution are necessary. Absence of these facilities leads to absence of users (Nasution & Zahrah, 2012). It should be mentioned that these cases are more critical for encouraging women to be present continuously and use the space (Javidaani, 2012). In other words, spaces that include the necessary

abovementioned facilities, possess a stronger functional dimension which will have a positive effect on the improvement of the level of activities in space (Alexander et al., 1977).

Hence, the three dimensional relationship between public space, comfort resulting from providing the basic condition of fulfillment of human physiological needs and the degree of space users' activities (Aydin and Ter, 2008). Another important component in providing environmental comfort is cleanliness. There is a direct relationship between this component and the users in space (Perkins & Thorns, 2011). The viewpoint of environmental quality and achieving it fulfills and meets users' physiological needs. This condition causes people to be encouraged to be present in public spaces and so their social life is formed. These can be understood from the design-oriented spatial approach as well as the human approached mentioned before. In this regard, theorists such as Appleyard (1981), Carmona et al., (2010), Jacobs, (1995), Marcus and Francis (1997), and Tibbalds (2002), considered the component of environmental convenience as one of the proper public spatial components. In addition to, safety is one of the basic human needs. Indeed, it is considered as the second most desirable requirement after physiological needs (Lang, 1987; Maslow, 1987). Burton et al., (2006) believes that safety in communal space is produced in different levels. Therefore it can be said that safe communal space is one that is safe for all the users whether audiences, pedestrians, observers. The following figure shows the relationship of this category of space users:
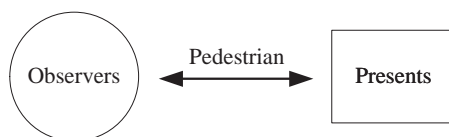
Figure 1. User classification due to communal spaces (Adapted from Burton et al., (2006))

As can be seen in the above figure, the first category of users is those whose residence or work place is somehow related to the urban space and the adjacent spaces. These types of people that include residents and workers in a space are called presents. The second category are people who are only passing by a space in order to reach another destination, they are called pedestrians. The third category called observers is people who choose space for their social life such as sitting, eating, talking, walking, etc. Therefore, the qualitative criteria considered for this research in the area of safety, are related to criteria related to environmental quality, whose capability and function improve safety in communal life.

Carmona et al., (2010) considers evaluation of the qualities of public urban spaces possible through the six dimensions including morphological, conceptual, social, visual, functional, and temporal dimensions. Based on the analyses and syntheses conducted in this study and considering the combined selected approach in design-oriented approach to analyze the quality of proper communal space for the formation of women communal life, the author suggests the four dimensions which are functional, visual social and cultural, each of which consists of the related indicators. In the following, it will be discussed the proposed functional dimension supporting the formation of women social activities in communal spaces

1.3 Functional Dimension and Its Parameters

The functional dimension suggested in this study consists of 3 parameters, namely, convenience, accessibility, and space fluency. Among which the convenience parameter was discussed in the above. In the following, the aspects selected for this study that will be discussed are accessibility and space fluency.

1.3.1 Accessibility

According to Oldenburg (1999), physical access to spaces is one of the indicators of environmental quality improvement. It means that communal spaces, while being appealing, should be accessible to all society members at all hours of the day (Carr et al., 1993; Oc and Tiesdell, 1997). Bentley (1999) expresses that the number of potential passages and accesses that are built for a space to move from one point to another, show the quality of that space. In other words, it can be said that physical access includes a person's ability to move within a space. Wood et al., (2010) and Knox et al., (2009) present some approaches in a classic theory to improve people's capability to move in a space. They emphasize improvement of public possessions in order to increase access between spaces and Wood et al., (2010) emphasizes improvement of the number of spatial relationships with the aim of increasing social interactions. Carmona et al., (2010) interprets this spatial cohesion as the change of dead-end routes to open routes. Also Movahed et al., (2012) emphasized reducing real barriers (gates, hedges, walls, etc.) and also symbolic barriers (Gardens, fences, etc.) for improvement and access.

On the other hand, Banerjee (2001) states that available public spaces are not just accessible spaces but they should be capable of forming people's social life. Thus, that several pedestrian connections can provide opportunities for people communal interactions (Banerjee, 2001; Bentley, 1999; Jacobs, 1961; Tibbalds, 2002). In addition to the abovementioned, Carmona et al., (2010) believes that access spaces should be capable of having public transportations. This possibility allows all users especially vulnerable groups such as women and children, to be present in the space at different hours of the day (Matos Wunderlich, 2008). Based on what was mentioned, routs of public transportation and proper and numerous sidewalk access are some of the routes that can be evaluated in the parameter of accessibility.

1.3.2 Space Fluency

Based on space syntax theory, Hillier (1996) believes that public spaces, as variable spaces should be analyzed in a way that the flow of pedestrian movement plays a determining role in its spatial form. This attitude is very much similar to Alexander et al., (1977) theory of pattern language and also his theory of modern urbanism. It means that in terms of arrangement, physical components are not very important but connections of spaces have a determining role. This attitude is also evident in the research results of Jacobs (1961). In this area, Trancik (1986) considers maintaining continuity and combining public spaces as an important factor in creating and continuing movement in space and as a result, social activities are improved and the space becomes safer for everyone. In this regard, Hillier (1996) also considers establishing different functions through spatial connections the cause of change in movement pattern in space and believes that it improves safety.

Further, movement in public spaces forms the basis of human experience in space and is an important factor in creating and continuing life in space (Humphreys, 2010; Jacobs, 1961). In this respect, Hiller (1996) believes that people's movement in communal spaces is multifunctional. It means that besides the starting point and destination in a movement, mediating spaces are also the context of formation of communal life (Edensor, 2010). In this regard, considering the design-oriented viewpoint in this study, the parameter of space fluency will be evaluated through mobility and spatial flow measures.

1.4 Traditional Iranian Bazaar as a Cultural Phenomenon

Based on Edgu et al., (2012) the structure of traditional Bazaar is a combination of the fundamental physical elements (as economic, religious- cultural, social and service, and communicational and protective elements) of Bazaar and the relationships between these elements with each other. In fact, the physical elements in Iranian traditional Bazaar work as a system (Khalili et al., 2014) and they are dependent on each other while having independent identity and they form a unified set named "Bazaar". In other words, Bazaar, as a key element in Iranian-Islamic structure of cities, consists of smaller elements.

2. Research Aim and Methodology

The aim of this qualitative research is to identify the relationship between communal setting of traditional Iranian Bazaar and women communal life. In this regard, through Interpretivism paradigm, qualitative approach and case study strategy the communal role of these setting to support women communal life were analyzed. To increase the accuracy of findings, the data collected through multiple tactics including site observation, semi-structured single face to face and focus group interviews, and unobtrusive behavioral observation.

Figure 2. Two selected pedestrian squares as the women social setting in traditional Isfahan Bazaar, Iran

In this regard, through criterion sampling strategy (Merriam, 2009), traditional Isfahan Bazaar as the common ordinary of traditional Iranian Bazaar was selected. Besides, the sampling strategy for selecting Bazaar's communal setting was purposeful. It means that after preliminary investigation the women social setting including two pedestrian squares namely Meydan Naghsh e Jahan and Meydan Kohneh in traditional Isfahan Bazaar were selected as cases of study. Additionally, the selection of participants was based on homogeneous sampling (Abolmaali, 2012) and among women of the ages of 35 to 60.

The used technique for the preliminary investigation phase of study was covert observation and pilot semi-structured interview. After this phase which was done by main researcher and two research assistants during 2 weeks, in the phase of final investigation, the researcher and 3 research assistants did unobtrusive behavioral observation the selected setting, semi-structured interview with 24 Iranian middle-aged women and 5 groups of users during 8 days (Two sector of June 2013 and Feb 2014). The time of each single face to face interview on Farsi language was around 30-35 minutes and for focus group interviewing this time became around 50-65 minutes.

3. Results and Discussion

After identifying the gathered information through direct observation, semi-structured single interview, and semi-structured focus group interviewing, two social spaces in the traditional Bazaar of Isfahan where women were present and which they favored, were recognized.

Table 1. Summarizing responses derived from single face to face interviewing and focus group interviewing in terms of women communal setting in the Isfahan Bazaar

Socio setting	Groups (Number=5)	Respondents (Number=24)
Meydan Neghsh e Jahan	4	22
Meydan Kohneh	2	9

The findings of direct observation show that two pedestrian squares of the traditional Bazaar, Meydan Naghsh e Jahan and Meydan Kohneh, involve most communal activities of middle-aged women. These findings are also confirmed by the information obtained through semi-structured single interview, and semi-structured focus group interviews. Out of the 24 respondents in the semi-structured single interviews in June 2013, 22 respondents mentioned Meydan Naghsh e Jahan and 9 to Meydan Kohneh (some of the respondents mentioned both squares) as conducive spaces for communal activities (Table 1). For the purpose of triangulation, the responses obtained through the semi-structured focus group interview show that out of the 5 groups interviewed in Feb 2014, 4 groups referred to Meydan Naghsh e Jahan as one of the conducive spaces for communal life. In addition, the results obtained through direct observation, semi-structured single and focus group interview also confirmed the photographic evidence. The following photographs have been taken by the researcher during the data collection procedure. These photos show that Meydan Naghsh e Jahan has a significant role in forming women communal life in the traditional Iranian Bazaar.

Figure 3. Women presence within Meydan Naghsh e Jahan, Traditional Isfahan Bazaar, Iran

The second social setting that was mentioned by 38 % of the respondents (9 out of 24 people) was Meydan Kohneh which is located north of the traditional Bazaar of Isfahan. This square is located in the vicinity of Masjid Jame (Atigh), Imam Zadeh Haruniyeh, and Raasteh Enghelab. This square is completely pedestrianized and is smaller than Meydan Naghsh e Jahan in size (250×90 m^2). Besides, the responses obtained through the semi-structured focus group interview which was carried out in Feb 2014 confirm these findings. It means that 2 out of 5 groups that were interviewed considered Meydan Kohneh as one of the best women communal spaces

(Table 1). In addition, the photographs taken from Meydan Kohneh at different times suggest women's interest in this space as a conducive space for their communal activities.

Figure 4. Women presence within Meydan Kohneh, Traditional Isfahan Bazaar, Iran

3.1 Analysis of the Women Conducive Communal Spaces from Functional Dimension

The parameters of accessibility, physiological convenience, and space fluency act as functional dimension in this study. Each mentioned parameters have some measures which are very helpful to clarify the framework of this study. In this regard the parameter of accessibility consists of two measures of public transportation and sidewalk access. The result of these two measures is the continuous use of public spaces which is one of the features of a safe public space. The parameter of convenience consists of four measures which are cleanliness (free of any pollution), climate comfort (protection against wind, rain, and sun), equipment and furniture, and lack of interrupting motor vehicle. Also the parameter of space fluency consists of two measures including mobility and spatial flow, where mobility is considered to mean possibility to reach various functions through pedestrian movement.
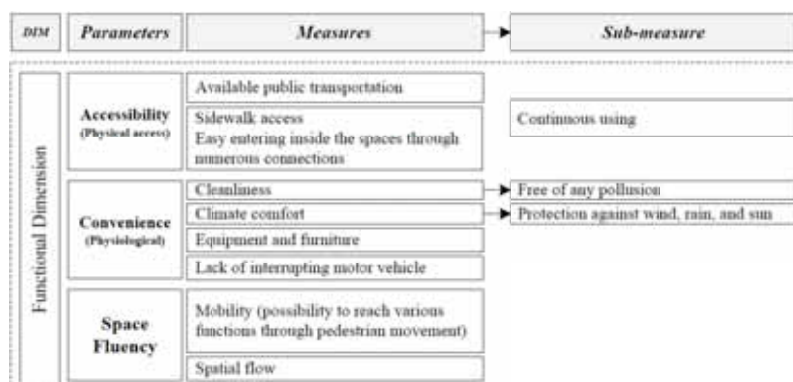
Figure 5. Parameters and measures of women conducive women communal setting from functional dimension

Based on the analysis of the data collected by semi-structured interviews with middle-aged women in the traditional Bazaar, the results related to parameters and measures of functional dimension are presented in the table below:

Table 2. Summarizing semi-structured single and group interviews responses in terms of functional dimension

Summarizing Semi-structured Interviews Responses (Functional Dimension)					
Parameters	Measures	Responses (N= 24)	Responses (%)	Responses (Group= 5)	Responses (%)
Accessibility	Public transportation	11	45.5 %	1	20 %
	Sidewalk access	18	75 %	5	100 %
Convenience	Cleanliness	20	83 %	5	100 %
	Climate comfort	24	100 %	5	100 %
	Furniture & equipment	24	100 %	5	100 %
	Lack of motor vehicle.	3	12.5 %	---	---
Space Fluency	Mobility	13	54 %	5	100 %
	Spatial flow	17	71 %	5	100 %

As can be seen in the above table, from the viewpoint of importance of accessibility parameter, 11 of the interviewees (45.5%) mentioned the importance of public transportation and 18 (75%) to the importance of sidewalk access. Because the traditional Bazaar is connected to the residential context from each side as the backbone of the city and this fact increases the importance of the sidewalk access. On the other hand, the linear extent of the Bazaar allows citizens to access it on foot from different places. Besides, all the participants in semi-structured single interviews mentioned the importance of convenience. All the participating women consider the measure of climate comfort as one of the architectural features of Iranian traditional Bazaar in their response to question 5 of the interview (The possibility of using Bazaar in all the seasons). This is because the Iranian traditional Bazaar is roofed with suitable ventilation and natural and sufficient light which provides a suitable condition for people's use in different weather conditions. Another measure that all of the participants mentioned as a factor encouraging presence of women was the existence of proper equipment such as restrooms, stores and food and snack stalls, etc. and also furniture that suit women's needs such as proper benches, platforms, dents in the walls of Bazaar for sit-rest and especially chit chatting. In the meantime, 17 of the participants believed the necessity of improving equipment and furniture in the spaces of the traditional Bazaar of Isfahan. In this regard 20 of the participants in the interviews mentioned cleanliness as an important criterion for women while choosing public spaces and among them, 9 of the participants believed in the necessity of improving cleanliness of Bazaar.

As can be seen in Table 2, most participants (20 cases) considered the measure of motor vehicle traffic in the spaces of Bazaar as a weakness. It means that this factor can be discussed as one of the weaknesses of the spaces of the traditional Bazaar. This case is also confirmed by the information collected through direct observation. The third parameter in functional dimensions is space fluency that 17 of the interviewees (71%) considered spatial flow and 13 (54%) considered mobility as the effective factor in encouraging women to be present in communal spaces of Bazaar. For triangulation, the results of observations and semi-structured single interviews can be confirmed with the results of semi-structured focus group interviews. As can be seen in the table 2, except for public transportation which shows the importance of pedestrian movement in the space and similarly the existence of motor vehicle which shows the weakness of the traditional Bazaar, other items have been mentioned by every group. Therefore by analyzing the results of focus group interviews, the results associated with the functional dimension resulting from these interviews show the importance of improving cleanliness and equipment/furniture and also decreasing the presence of motor vehicles in the spaces of the Bazaar.

3.2 Discussion on the Related Parameters of Functional Dimension in the Identified Social Setting

The findings of this study show that the pedestrian squares in the Bazaar of Isfahan are very popular among most of the users and specially women owing to easy accesses. In this respect, the findings show that several connections from pedestrian squares in Bazaar of Isfahan to different spaces and pedestrian access to every parts of it on the one hand, and existence of various facilities for public transportation in these spaces have caused these pedestrian squares to be used by women all day and without any restrictions. Moreover, lack of motor vehicles in these squares has increased women's convenience in these spaces. These measures, as well as the identified measures in convenience parameter provide a strong functional dimension for increased presence of women in space and formation of different activities, while satisfying women physiological, safety, and social needs. Moreover, because of the proper proximity of pedestrian squares to roofed Raastehs, women can use them in all seasons. In additions, suitable equipment such as urban furniture, restrooms, watering place (Water dispenser), and retail stores and also food distribution are the necessary cases that are found in these squares frequently. Therefore, due to the convenient resulting from these parameters, the quality of women social life and level of their activities in these spaces have improved.
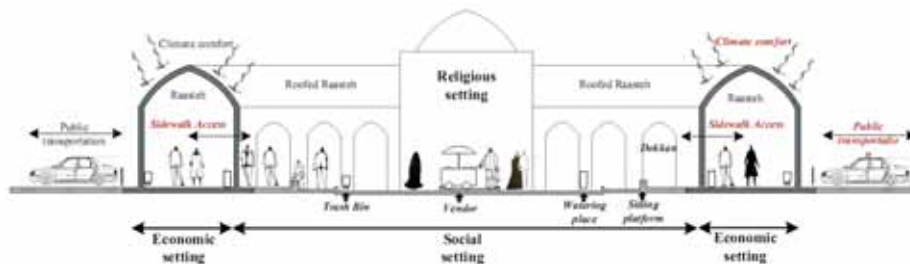

Figure 6. Section analysis of the parameters related to the functional dimension in social setting of traditional Bazaar

On the other hand, spatial continuity in pedestrian squares, leads to continuous movement of the users. And as a result, social activities develop and the space becomes safer and more suitable for women. Because movement in public space forms the basis of women's experience of space and is an important factor in creating and continuing life in space. The following figure demonstrates the parameters related to the functional dimension in the social spaces selected by women in the traditional Bazaar.
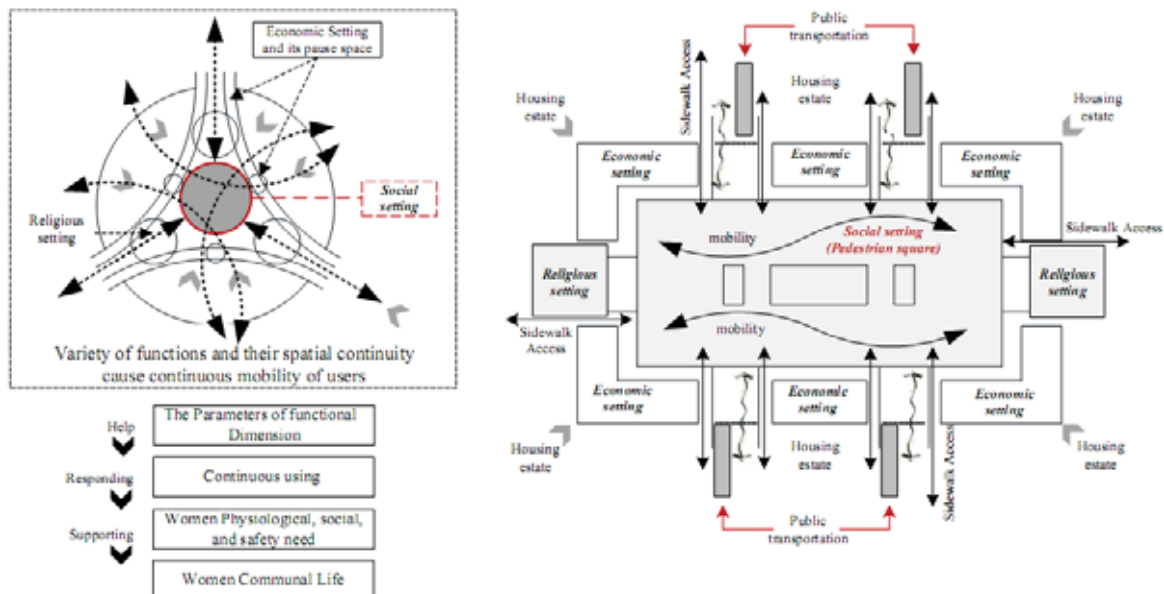

Figure 7. Analysis of the parameters related to the functional dimension in selected social setting of traditional Isfahan Bazaar

4. Conclusion

Based on this study, the Iranian traditional Bazaars are ideal spaces for women communal life functionally. The findings of this research show that enacting the suggested measures of the parameters of functional dimension like accessibility (Sidewalk access and public transportation), convenience (Climate comfort, cleanliness, furniture and equipment, and lack of motor vehicle), and space fluency (Mobility and spatial flow) is very helpful and necessary in improving environmental quality for the formation of women communal life. To sum up, it can be concluded that the planners and designers could have a better idea in planning and designing modern market places through considering gender role and different needs (social, cultural, safety and physiological needs) associated with it.

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Service Blueprinting and Business Process Modeling Notation (BPMN): A Conceptual Comparison

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Abstract

The modeling of business processes has become a central aspect in how businesses understand, support, and communicate about their processes. Two prominent approaches are service blueprinting and business process modeling notation (BPMN). Service blueprinting supports customer service processes whilst BPMN helps understand a firm's processes with particular focus on how information and communications technology supports processes, and also for process automation. To fully support services through an organization's processes, there needs to be a complete understanding of how these two process representations relate. Hitherto only a partial comparison has been undertaken by Milton and Johnson in 2012. Therefore we ask the question, what are the specific similarities and differences between these two approaches? To answer this question, we employed the method of conceptual evaluation to conduct a two-way conceptual comparison of service blueprinting and BPMN. We found specific similarities and differences between the two modeling approaches. Understanding how to represent service blueprint concepts in BPMN is important for supporting service-processes with information technology and for automating aspects of those processes. Furthermore, knowing the limitations of how service blueprints support BPMN means that mapping internal processes to service processes can be done with minimal loss in semantics.

Keywords: service blueprinting, business process modeling notation (BPMN), concept, conceptual evaluation, conceptual comparison

1. Introduction

Service blueprinting and the business process modeling notation (BPMN) are process modeling techniques with different perspectives toward service processes and operations. Service blueprinting is a domain specific modeling approach (for service processes), designed by service marketers to address challenges and difficulties regarding the interaction of the customer with the service provider. Service blueprints are easy to understand and all stakeholders (customers, organization's employees and managers) can communicate with them (Bitner, Ostrom, & Morgan, 2008). BPMN is a general purpose modeling approach (for any process), used by several companies to analyze and document their business processes. We aim in this study to compare these models, and to understand their conceptual similarities and differences in more detail. The main research question is:

What are the conceptual similarities and differences of service blueprinting and BPMN?

Milton and Johnson (2012) employed a similar research method to understand how well service blueprinting concepts are supported by BPMN concepts. However, this study not only answers this question in more detail, it is bi-directional in that it assesses how well BPMN concepts are supported by service blueprinting concepts rather than just seeing how well BPMN supports service blueprinting. Specifically, this study aims to answer two subordinate research questions: 1) how well does BPMN conceptually support service blueprinting? And 2) how well does service blueprinting conceptually support BPMN? Answering these two questions clarifies the conceptual similarities and differences of service blueprinting and BPMN. We (in press, 2015a, 2015c) successfully used the method of conceptual evaluation to compare various modeling formalisms and there is no alternative to this method for conducting a comparison of this nature. Considering that there is a growing interest in BPMN (Chinosi & Trombetta, 2012), the findings of this comparison can be used to refine BPMN to meet a

customer's perspective as well as an organizational perspective and it can provide a foundation to understand how they can be used together.

This paper continues with a comprehensive explanation of research design and method. Following this, service blueprinting and BPMN are explained precisely. We then present a conceptual evaluation of BPMN against service blueprinting for the purpose of answering the first research sub-question. The next part is dedicated to the conceptual evaluation of service blueprinting against BPMN in order to answer the second research sub-question. Finally, we consolidate findings and conclude.

2. Research Design

This section explains an improved version of the method of conceptual evaluation (Milton & Johnson, 2012) in detail. The purpose of this method is to conceptually compare a pair of process modeling formalisms. Considering A and B as the process modeling formalisms under study, the method has five steps. The first two steps determine concepts of A and B. Then step 3 explains how to compare the concepts of B using the concepts of A as a kind of yard stick or benchmark. Step 3 has two dimensions: presenting the results of comparison in a tabular form and then explaining the nature of the gaps between concepts. Step 4 resembles the third and includes the comparison of concepts of A with the concepts of B and reverses the roles of the formalisms compared with step 3. Step 5 reports the findings and implications from the results of steps 3 and 4. The details of steps are as follows:

Step 1. Determine the concepts of A. The concepts for A are $<a_1>$, $<a_2>$, …, $<a_n>$.

Step 2. Determine the concepts of B. The concepts of B are $<b_1>$, $<b_2>$, …, $<b_m>$.

Step 3. Perform a conceptual evaluation of B against A. This means each concept from A will be compared with concepts from B. We utilize semiotic theories for this purpose. Milton and Kazmierczak (2004, p.30) state two reasons for employing semiotic theories to compare concepts with each other:

"Firstly, terms and concepts are clearly semiotically related. Secondly, comparison of concepts is semantic with semiotic theory providing an ideal basis for explaining semantic differences in terms."

Specifically, concepts "span parts of a semantic field (Eco, 1976), or conceptual plane (Cruse, 2000; Culler, 1976). Alternatively, each term possesses an essential depth (Liska, 1996) which similarly evokes the conceptual span of a term" (Milton & Kazmierczak, 2004, p.30). In fact, when we compare two concepts from two different process modeling formalisms, we compare the similarities and differences of the "semantic field" associated with each concept.

We define three categories of the results when we compare $<a_i>$ (i = 1… n) with concepts from B: full respective coverage of the semantic field ($\checkmark$), partial respective coverage of the semantic field ($\checkmark$p) and no coverage of the semantic field ($\times$). Full coverage happens when the semantic field of $<a_i>$ has total overlap with the semantic field of one or a combination of more than one concepts from B. Partial coverage happens when the semantic field of $<a_i>$ has partial overlap with the semantic field of one or a combination of more than one concepts from B. No coverage occurs when we cannot find any overlap between the semantic field of $<a_i>$ with the semantic field of one concept or any combination of concepts from B. We first investigate to see if there is a total overlap between the semantic field of $<a_i>$ and the concepts from B. If not, we search for partial overlap.

It is important to know that we always choose a simple concept or a combination of concepts from B that includes a minimum number of concepts still maintaining maximum coverage. This simple or combination of concepts is called "supportive concept". Specifically, $<b_{i'}>$, … , $<b_{j'}>$ ($0 < i' \leq j' \leq m$) are the concepts from B, altogether being a supportive concept, in which the combination of semantic fields fully or partially covers $<a_i>$. The supportive concept is represented as $<b_{i'} + … + b_{j'}>$.

However, more generally, there may be cases where the same semantic field, $<a_i>$, is partly or fully covered by different distinct compound concepts from B. Specifically, $S_i(B)$ is a group of compound concepts, each member of which independently covers $<a_i>$ (either fully or partially). Then $S_i(B) = \{<b_{i'} + … + b_{j'}>, … , <b_{i''} + … + b_{j''}>\}$ ($0 < i' \leq j' \leq i'' \leq j'' \leq m$). This specifically, means that $<a_i>$ is covered by $<b_{i'} + … + b_{j'}>$ but also $<a_i>$ is independently covered by $<b_{i''} + … + b_{j''}>$. However, in practice usually we cannot find more than one supportive concept. If there are no concepts in B to cover the semantic field of $<a_i>$ at all, then $S_i(B) = \{\emptyset\}$. Figure 1 pictorially represents the explained three categories of results for the coverage of $<a_i>$ by $S_i(B)$.

We present the results in a tabular form and then discuss the nature of the gaps utilizing semiotic theories according to the represented order of concepts of A. Table 1 presents an example of a table which is used to represent the results of comparing the concepts of A with the concepts of B.

Table 1. Example-Results of conceptual evaluation of B against A

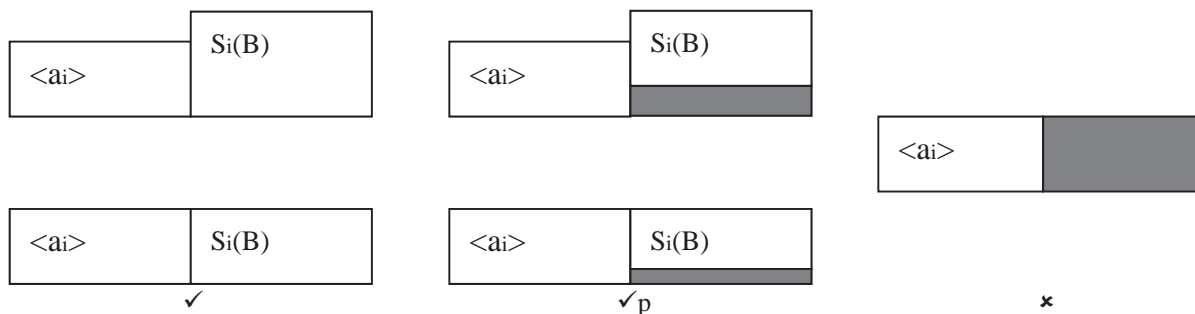| Concepts of A	Degree of overlap	Supportive concepts of B
<a1>	✓/✓p/✗	S1(B)
...	...	...
<an>	✓/✓p/✗	Sn(B)

Figure 1. Degree of overlap in coverage of semantic field for <ai> by Si(B)

While we used "+" to present a compound concept, the word "plus" is used during discussions for this purpose. The terms "fully covers", "completely covers", "fully supports" and "completely supports" are used to describe full coverage of <ai> with supportive concepts from B. For partial coverage, the terms "partially covers", "partly covers", "partially supports" and "partly supports" are used.

Step 4. This step resembles Step 3, dedicated to a conceptual evaluation of A against B.

Step 5. Consolidate the findings and explain the implications from the results of steps 3 and 4. Two major findings in this step can be:

  a) Suppose <bi' + …+ bj'> fully covers <ai>, …, <aj> and <ai +   …+ aj> fully covers <bi'> , … ,<bj'>. Then: <bi' + …+ bj'> covers the same semantic field as <ai +   …+ aj>.
  b) Suppose <bi' + …+ bj'> fully covers <ai>, …, <aj> and <ai +   …+ aj> partially covers at least one concept from <bi'> , … ,<bj'>. Then: <bi' + …+ bj'> has a broader semantic field than <ai +   …+ aj>.

3. Service Blueprinting

Service blueprinting has a long history of service marketing and innovation and is used in understanding existing services or planning new ones. Originally proposed by Shostack (1982, 1984, 1987), Kingman-Brundage (1989, 1991, 1993, 1995) further developed it, calling it service mapping.

A service blueprint examines customer interactions with a service company including interaction with individuals or technologies (e.g., websites), and is best created through cross-functional teams and customers (Bitner et al., 2008). All contact points, support processes, physical props / design and other process functions are represented to understand a crucial point of difference between firms: customer experience (Alonzo-Helton, Fletcher-Brown, & Stephens, 2013) in service delivery (Ojasalo, 2012). Service blueprinting is a structured way to help manage customer experience and also to reach customer and firm goals (Bitner et al., 2008).

There are two dimensions in a blueprint: "the horizontal axis represents the chronology of actions conducted by the service customer and service provider. The vertical axis distinguishes between different areas of actions. These areas of actions are separated by different 'lines:'" (Fließ & Kleinaltenkamp, 2004, p. 396). Figure 2 presents a service blueprint for a hotel stay.

In Figure 2, actor *actions* and *physical evidences* are shown by boxes. Sequences of boxes show *action flow* for each actor. Arrows between actor actions show *communication flow* (Milton & Johnson, 2012). The horizontal segmentations of actions represent *actor categories*. The actor categories are *customer, onstage employees, backstage employees (or* systems*), support* and *management*. Four lines segregate actors based on distance from, and interaction with, the customer and were in the original conception of service blueprints (Bitner et al., 2008) and have been augmented by: the *lines of interaction, visibility, internal interaction, and implementation*. A fifth, called the *line of order penetration*, was introduced by Fließ & Kleinaltenkamp (2004) and lies between the *line of internal interaction*, and the *line of implementation*.

The *line of interaction* separates customer actions from the actions of the service company's employees and its systems. These employees and systems are either visible to the customer or lie further away. The *line of visibility* separates those actions of which the customer is aware from others not visible but supporting the customer (and indeed from other actors deeper in the organization). The *line of internal interaction* separates backstage actions that directly support customers in the service encounter from other actions of the business. Those actors whose activities are induced by customer actions are those said to be 'directly supporting customers', whether visible or in the 'backstage' and "can be carried out after having been started by the customer" (Fließ & Kleinaltenkamp, 2004, p. 396) or induced by other customer-related events external to the business. The *line of order penetration* separates customer-induced actions from actions that are independent of customers. Customer independent actions are "independent from a specific customer and only rely on the service company's internal production factors" (Fließ & Kleinaltenkamp, 2004, p. 397). Finally, the *line of implementation* separates support actions from managerial actions.

The core concepts of service blueprinting are shown in Table 2, which were defined earlier, with their precise definitions to facilitate the conceptual comparison of service blueprinting with BPMN. The following section is dedicated to an introduction of business process modeling notation (BPMN).

Table 2. Concepts in service blueprinting

Concept	Definition
<Action>	Actions that customer, onstage personnel, backstage personnel (systems), support and management perform in a service process (Milton & Johnson, 2012).
<Actor Categories>	Actor categories are *customer*, *onstage personnel*, *backstage personnel (systems)*, *support* and *management* (Bitner et al., 2008).
<Action Flow>	Action Flow presents the sequence of actions by an actor (Milton & Johnson, 2012).
<Communication Flow>	Communication Flow presents the flow of communication between any actors in the service (Milton & Johnson, 2012).
<Line of Interaction>	Line of Interaction is an interface between customer and frontline employees (systems) (Bitner et al., 2008).
<Line of Visibility>	Line of Visibility is an interface between onstage and backstage employees (systems) (Bitner et al., 2008).
<Line of Internal Interaction>	Line of Internal Interaction is an interface between backstage employees (systems) and support employees (systems) (Bitner et al., 2008).
<Line of Order Penetration>	Line of Order Penetration is an interface between customer induced actions and customer independent actions (Fließ & Kleinaltenkamp, 2004).
<Line of Implementation>	Line of Implementation is an interface between support employees (systems) and managerial actions (Bitner et al., 2008).
<Props and Physical Evidence>	Props and Physical Evidence are all the tangibles that customers see during the service process and influence the customer's perception of quality (Bitner et al., 2008).

4. Business Process Modeling Notation (BPMN)

BPMN is an important process modeling technique and has attracted considerable research attention (Muehlen & Recker 2008). BPMN was first published by a consortium of tool vendors (BPMI.org 2004) but later allowed the Object Management Group (OMG) to publish it (BPMI.org and OMG, 2006). We cover BPMN version 2.0 (OMG, 2011).

BPMN has a core set of constructs and an extended set. The core set is for business analysts and non-technical users to model processes and activities for all stakeholders (Ko, Lee, & Lee, 2009; Recker, 2011). The extended set is for technical users allowing for more complexity and can be used for detailed design and automation in "workflow engineering, simulation, or web service composition" (Recker, 2010, p. 183). We consider the core

set of BPMN constructs because we want to compare BPMN with service blueprinting, which is used to communicate with all stakeholders in a service process (including non-technical stakeholders). Figure 2 shows a BPMN diagram of the hotel stay example that we used in the service blueprinting section.
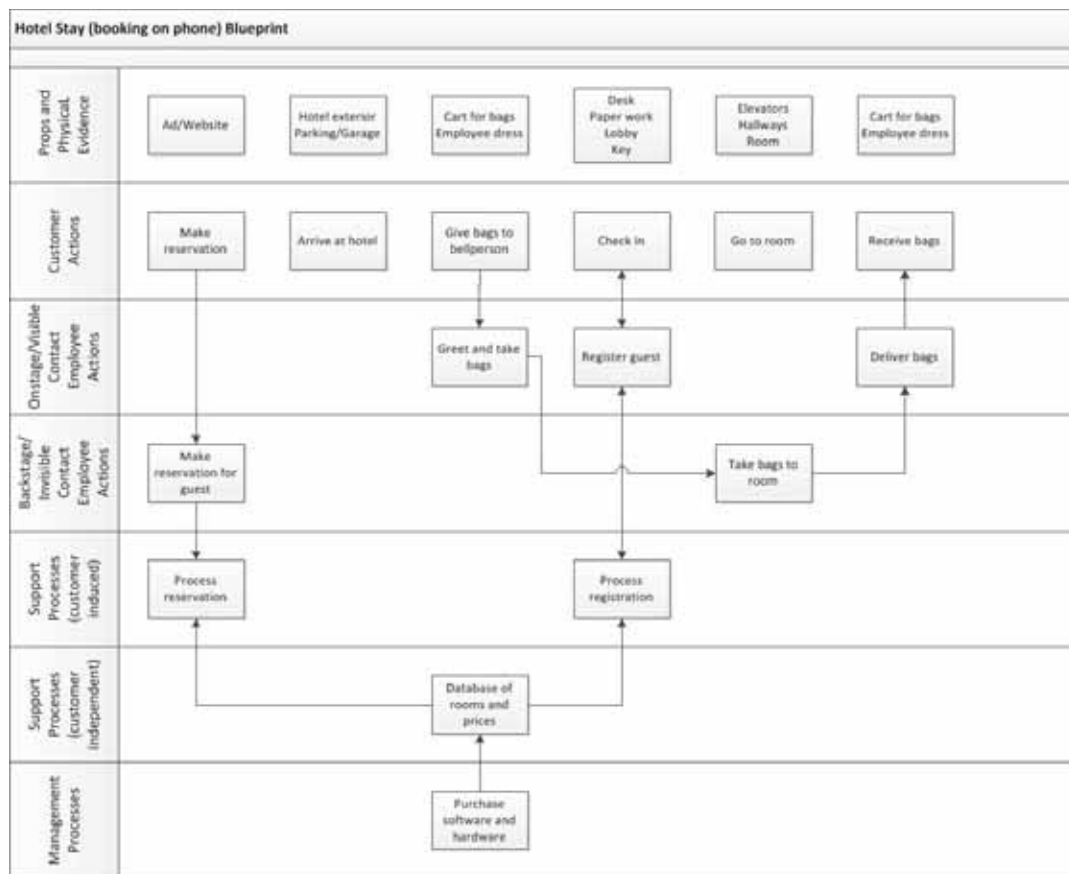

Figure 2. Service Blueprint example – Hotel Stay

There are four categories in BPMN basic constructs: *flow objects, connecting objects, swimlanes* and *artefacts*. Flow objects include *event, activity* and *gateway*, and connecting objects include *sequence flow, message flow* and *association*. Processes are separated into *pools* and *lanes*. Other artefacts are *data object, group* and *text annotation*.

An *event* triggering activity is shown in BPMN by a circle. There are three types of trigger: start event (when a participant begins a process), intermediate event (happens at the middle of a process) and end event (when a participant finishes a process). A super-type event happens at any time in a process and affects the flow (Kazemzadeh, Milton, & Johnson, 2015b).

Activity denotes actions and other processing in processes, and can be atomic (a specific task that won't be broken down) or compound (has sub-process). Activities are shown with rounded rectangles. Complex activities are denoted using a plus sign in the bottom center of the activity rectangle.

A *gateway* allows divergence and convergence of process flows. OMG (2011) defines six basic types of splitting and joining process flows. All are shown as diamonds with markings inside the diamond differentiating between the types. This study defines a super-type gateway as one allowing branching, forking, merging, or joining of paths: "whether exactly one (exclusive "or"), more than one ("or"), or all ("and") of the activities entering or leaving the join or split, respectively, are required prior to (join) or must follow (split)" (Milton & Johnson, 2012, p.612). In the hotel stay example the gateway determines branching of sequence flows: if the customer has bags then he give bags to a bellperson, otherwise he/she will proceed to check-in.

A *sequence flow* orders activities and is shown by a solid line with an arrow showing sequence of activities. A *message flow*, with attached label, shows a message flowing between activities and is denoted by a dashed line with a solid arrow, which indicates the direction of communication, the label showing the type of communication.
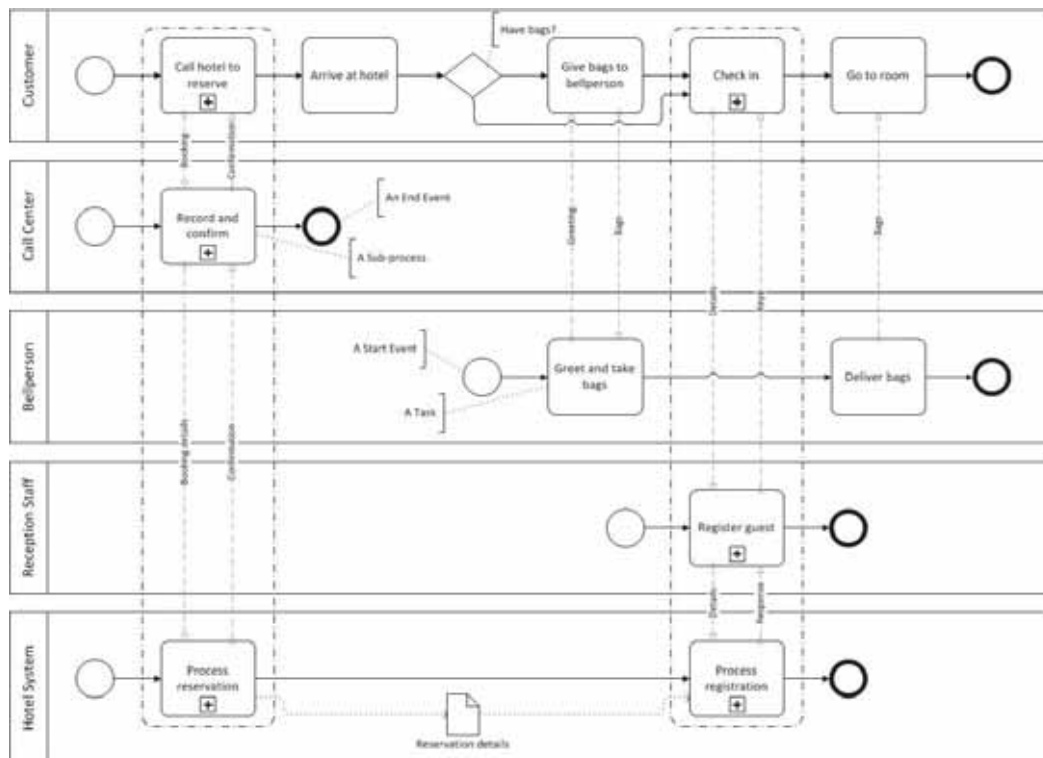
Figure 3. BPMN Diagram example – Hotel Stay

BPMN defines two formal grouping concepts: *pool* and *lane*. *Pool* represents a participant group. These can be a partner (e.g., a company) or a specific partner role (e.g., a buyer, seller, or manufacturer) or group internal to the company (OMG, 2011). *Lane* is used to categorize activities within a pool. A lane can represent an internal role, an internal department, or system. A process designer may use pool and lane constructs in very different ways and discipline in their respective use is not tight (Kazemzadeh et al., 2015b). In addition, it is critical to know that sequence flows connect activities within a pool and message flows connect activities between different pools.

An *association* connects BPMN artefacts with flow objects, and is shown with dotted lines, an *arrow* showing the direction of an association. A *data object* shows data required for, or produced by, an activity with an association linking data objects to activities.

A *group* links logically related activities for analysis or documentation purposes, and is shown by a dashed-dotted box around the activities. In the hotel stay example, two sets of activities are grouped: reservation sub-processes and registration sub-processes.

A *text annotation* allows comments to be included for readers. In the hotel stay example, annotations show different representational symbols for tasks, sub-processes, start events, and end events. Table 3 presents the core concepts of BPMN and their definitions. The next section presents the conceptual evaluation of BPMN against service blueprinting.

5. Conceptual Evaluation of BPMN against Service Blueprinting

Table 4 shows the results of the conceptual evaluation of BPMN against service blueprinting. The table indicates the service blueprinting concepts of <Action>, <Actor Categories>, <Action Flow>, <Communication Flow>, <Line of Interaction>, <Line of Visibility>, <Line of Internal Interaction> and <Line of Implementation> are completely supported by different BPMN supportive concepts. On the other hand, BPMN does not support <Line of Order Penetration> and <Props and Physical Evidence> in service blueprinting. The following paragraphs utilize semiotic theories to discuss how supportive BPMN concepts cover (or do not cover) each service blueprinting concept according to the represented order of concepts in Table 4.

An <Action> in a service blueprint is an actor's work in a service process. The actor can be a customer, frontline employees (or systems), support, or management. As explained in the BPMN section, an <Activity> "is a

generic term for work that an organization performs in a process" (OMG, 2011, p.29). This study considers "an organization" in the above definition as a customer or an internal department, system or role of a provider. Therefore, BPMN <Activity> fully supports <Action> in service blueprinting.

Table 3. Concepts in BPMN

Concept	Definition
<Activity>	An Activity is a generic term for work that an organization performs in a process. An activity can be atomic or compound. An atomic activity (task) is used when the work in the process is not broken down to a finer level of detail. A compound activity (sub-process) comprising more compound activities or tasks.
<Event>	An Event is something that "happens" during the course of a Process. These Events affect the flow of the model and usually have a cause (trigger) or an impact (result). An event can happen at the start of a process (start event), during a process (intermediate event), or at the end of a process (end event).
<Pool>	A Pool represents a Participant in a process. A Pool is a graphical container for partitioning a set of Activities from other Pools/participants.
<Lane>	A Lane is a sub-partition within a Pool. Lanes are often used for such things as internal roles (e.g., Manager, Associate), systems (e.g., an enterprise application), or an internal department (e.g., shipping, finance).
<Sequence Flow>	A Sequence flow is used to show the order that activities will be performed in a process by a participant. Sequence flows are connecting and ordering activities within a pool.
<Message Flow>	A Message Flow is used to show the flow of Messages between two Participants that are prepared to send and receive them. In BPMN, two separate Pools in a Diagram represent the two Participants.
<Message>	A Message is used to depict the contents of a communication between two participants.
<Gateway>	A Gateway is used to control the divergence and convergence of Sequence Flows in a Process. Thus, it will determine traditional decisions, as well as the forking, merging, and joining of paths.
<Data Object>	Data Objects provide information about what Activities require to be performed and/or what they produce.
<Text Annotation>	Text Annotations are a mechanism for a modeler to provide additional information for the reader of a BPMN Diagram.
<Association>	An Association is used to link artefacts (data objects and annotations) to flow objects (activities, events and gateways).
<Group>	A Group identifies logically related activities and does not affect the sequence flow. The grouping can be used for documentation or analysis purposes.

Note: Definitions from OMG (2011)

Table 4. Results of conceptual evaluation of BPMN against service blueprinting

Concepts of service blueprinting	Degree of overlap	Supportive concepts of BPMN
<Action>	✓	*<Activity>*
<Actor Categories>	✓	*<Pool* plus *Lane>*
<Action Flow>	✓	*<Sequence Flow* plus *Message Flow>*
<Communication Flow>	✓	*<Sequence Flow* plus *Message Flow>*
<Line of Interaction>	✓	*<Pool* plus *Lane>*
<Line of Visibility>	✓	*<Pool* plus *Lane>*
<Line of Internal Interaction>	✓	*<Pool* plus *Lane>*
<Line of Order Penetration>	✗	
<Line of Implementation>	✓	*<Pool* plus *Lane>*
<Props and Physical Evidence>	✗	

Service blueprinting <Actor Categories> refers to the customer, onstage employees, backstage employees (or systems), support employees (or systems), and management employees (or systems). A <Pool> in BPMN can present customer activities, provider activities or categorize provider activities to different organizational department processes and systems, similar to service blueprinting categorization for the provider actions. <Lane> is used to categorize activities within a <Pool>. <Lane> can be used to categorize provider activities similar to service blueprint actors. Therefore, BPMN users can employ only <Pool> or a combination of <Pool> and <Lane> to show all actors in service blueprinting. Consequently, <Pool plus Lane> in BPMN fully covers <Actor Categories> in PCN.

<Action Flow> in a service blueprint presents the order of performed actions by an actor. A <Communication Flow> in a service blueprint represents the flow of communication between two actions performed by two different actors. A <Sequence Flow> in a BPMN diagram orders activities by a participant. <Message Flow> in a BPMN diagram shows the flow of messages between two activities performed by two different participants. As we explained above, a BPMN diagram can use <Pool> to represent customer activities and divide provider activities to onstage, backstage, support, and management processes. In this case, a <Sequence Flow> presents the order of activities performed by an actor similar to <Actor Categories> in service blueprinting. Moreover, <Communication Flow> concepts connect two activities performed by two different actors similar to <Actor Categories> in a service blueprint. However, BPMN can categorize provider activities using a combination of <Pool> and <Lane> concepts. Therefore, <Sequence Flow plus Message Flow> in BPMN fully supports <Action Flow> and <Communication Flow> in PCN.

As we discussed in section 3, service blueprinting identifies five lines. The first line is the <Line of Interaction> which is an interface between customer actions and frontline actions. The second line is the <Line of Visibility>, which separates onstage actions from backstage actions. The third line is the <Line of Internal Interaction> which divides backstage actions from support processes. The fourth line is the <Line of Order Penetration>. This line was introduced by Fließ & Kleinaltenkamp (2004) to separate customer induced actions from customer independent ones. The last line is the <Line of Implementation>, which is an interface between support actions and management processes. As previously discussed, in BPMN only <Pool> or a combination of <Pool> and <Lane> can be used to represent different actors similar to a service blueprint. Therefore, BPMN <Pool plus Lane> fully covers all service blueprinting lines except the <Line of Order Penetration>. BPMN cannot support the <Line of Order Penetration> because it does not include any concepts to distinguish provider activities, which involve interaction with customers or customers' resources from activities done independently by a provider.

Finally, BPMN does not represent physical evidence customers can see during service delivery. Service blueprinting <Props and Physical Evidence> includes the tangibles that customers can see and affects customers' perception of service quality. Therefore, there is no concept from BPMN to cover <Props and Physical Evidence> from service blueprinting.

Summarizing, eight out of ten service blueprinting concepts are fully covered by different BPMN concepts. These service blueprinting concepts are: <Action>, <Actor Categories>, <Action Flow>, <Communication Flow>, <Line of Interaction>, <Line of Visibility>, <Line of Internal Interaction> and <Line of Implementation>. The only two service blueprinting concepts which are not covered by any concepts from BPMN are <Line of Order Penetration> and <Props and Physical Evidence>. BPMN does not clarify if a provider activity involves interaction with customers or customers' resources. Moreover, BPMN does not consider customer experience.

The following section details the results of conceptual evaluation of service blueprinting against BPMN in a tabular form and discusses them in detail.

6. Conceptual Evaluation of Service Blueprinting against BPMN

Table 5 shows the results of the conceptual evaluation of service blueprinting against BPMN. The table shows there are three concepts from BPMN which are completely supported by service blueprint supportive concepts: <Activity>, <Sequence Flow> and <Message Flow>. In addition to these, <Lane> and <Pool> concepts are partially covered by service blueprinting. The evaluation results indicate no coverage for <Event>, <Gateway>, <Message>, <Data Object>, <Text Annotation>, <Association Flow> and <Group> by any concepts from service blueprinting. The following paragraphs discuss the nature of the gaps according to the table order.

An <Activity> in a BPMN diagram refers to work that someone does as part of a process. An <Action> in a service blueprint is defined as the work done by an actor. Therefore, an <Action> in a service blueprint can refer to the <Action> concept performed by customers, frontline employees (or systems), or if they are a part of the

support and management processes. As mentioned in section 4, OMG (2011, p.29) identifies two types of BPMN <Activity>: atomic and compound. An atomic <Activity> (task) is a part of a service process which cannot be broken down to finer levels of detail. A compound <Activity>, also called a sub-process, consists of more than one compound <Activity> or task. In comparison, an <Action> in service blueprinting can also be a task or is possible to be broken down into more than one <Action>. As a result, <Action> in service blueprinting fully supports <Activity> in PCN.

Table 5. Results of conceptual evaluation of service blueprinting against BPMN

Concepts of BPMN	Degree of overlap	Supportive concepts of service blueprinting
<Activity>	✓	*<Action>*
<Event>	✗	
<Pool>	✓p	*<Actor Categories>*
<Lane>	✓p	*<Actor Categories>*
<Sequence Flow>	✓	*<Action Flow* plus *Communication Flow>*
<Message Flow>	✓	*<Action Flow* plus *Communication Flow>*
<Message>	✗	
<Gateway>	✗	
<Data Object>	✗	
<Text Annotation>	✗	
<Association Flow>	✗	
<Group>	✗	

OMG (2011, p. 29) defines <Event> as "something that happens during the course of a Process. These Events affect the flow of the model and usually have a cause (trigger) or an impact (result). There are three types of Events, based on when they affect the flow: Start, Intermediate, and End". Considering this definition for an <Event> in BPMN, there is no concept in PCN to cover it.

A <Pool> represents a participant that is involved in a service process. A <Lane> organizes or categorizes provider activities based on internal departments, roles or systems and is a part of a <Pool>. The comparison of concepts in service blueprinting with <Lane> and <Pool> shows that service blueprinting <Actor Categories> partially covers them. Service blueprinting <Actor Categories> divides actions in a service process into five different categories: customer actions, onstage actions, backstage actions, support and management processes. This is similar to categorizing actors involved in a service process, using only <Pool>, or a combination of <Pool> and <Lane>. In fact, <Pool> and <Lane> can group activities of a service process in many different ways. Therefore, service blueprinting <Actor Categories> is a specific way of categorizing actions in a BPMN diagram using <Pool> and <Lane>, so it covers them partially.

BPMN <Sequence Flow> orders the activities done by a participant in a service process. <Message Flow> is defined by OMG (2011) as the connection between two participants, one a sender and the other one a receiver. In a service blueprint, <Action Flow> orders a specific actor's actions and <Communication Flow> represents communication between two actors. An actor's actions in a service blueprinting can be similar to a participant's activities or a combination of two or more participants' activities in BPMN. Therefore, <Action Flow plus Communication Flow> fully covers <Sequence Flow> and <Message Flow>.

Every <Message Flow> has a <Message>. A <Message> presents the content of <Message Flow> and shows what an actor sends to another actor. Service blueprint does not cover <Message> because it does not show the content of communications between two different actors.

A <Gateway> controls the divergence or convergence of a <Sequence Flow> in a service process. A <Gateway> determines branching, forking, merging, or joining of paths through the use of an internal condition. Service blueprinting does not include any concepts to change the order of actions based on a specific condition. The study of several blueprints implies that service blueprinting modelers always avoid any conditions to order actions; they restrict the diagram to one possible condition. Therefore, <Gateway> in BPMN is not covered by any concepts from service blueprinting.

A <Data Object> is defined as required data for an activity or produced data by an activity. It is essential to know that "data input and data output provide the same information for processes" (OMG, 2011). Recker (2011)

explains that <Data Object> is a kind of artefact; it provides information about processed data and does not have any direct effect on connecting objects. Service blueprint does not show if there is a need for data to perform an activity or produced data during an activity.

A <Text Annotation> is an artefact in BPMN diagrams, providing additional information about different concepts. In addition, the literature suggests that <Text Annotation> is employed in many cases to represent business rules (Recker, Indulska, Rosemann, & Green, 2010). In comparison, it seems service marketers assumed everything was clear in a service blueprint and that there was no need to add additional information for readers.

An <Association> is used to associate information with flow objects. An <Association> can be used especially when business analysts want to associate a <Text Annotation> or a <Data Object> to other represented concepts (e.g. events and activities). Service blueprinting concepts do not include any tools to associate information with activities. Consequently, <Association> in BPMN is not covered by service blueprinting.

<Group> is a concept identifying a category of activities for the purpose of process analysis and documentation without affecting the order of activities. When the designers use a <Group>, they draw a rounded corner box with dashed lines around targeted graphical elements and they name it with a label. BPMN designers and analysts can use a <Group> to categorize activities within a pool or across pools (Recker, 2011). Service Blueprint users can only categorize actions based on their actor. Therefore, Service blueprint does not include any concepts that cover <Group> in BPMN.

In summary, service blueprinting fully or partially covers five of twelve BPMN concepts. The fully covered BPMN concepts by service blueprinting are: <Activity>, <Sequence Flow> and <Message Flow>. However, <Message> which indicates the content of communication between two participants in a BPMN diagram is not covered at all by any concepts from service blueprinting. In addition to these, <Pool> and <Lane> are partially supported by <Actor Categories> in service blueprinting. Service blueprinting does not cover the basic BPMN flow objects of <Event> and <Gateway>. Finally, <Association Flow> and BPMN artefacts including <Data Object>, <Text Annotation>, and <Group> are not covered by any service blueprinting concepts.

The following sections present major findings from both comparisons and their conclusions.

7. Findings

The results indicate that <Action> from service blueprinting covers the same semantic field as <Activity> in BPMN. Recker (2011) highlights <Activity>, <Event>, and <Gateway> as the most basic concepts for designing a BPMN diagram. <Event> and <Gateway> are not covered by any concepts from service blueprinting.

The conceptual evaluation of BPMN against Service blueprinting implies that <Sequence Flow plus Message Flow> fully supports <Action Flow> and <Communication Flow>. On the other hand, the outcome of conceptual evaluation of service blueprinting against BPMN indicates that <Action Flow plus Communication Flow> fully supports <Sequence Flow> and <Message Flow>. Consequently, <Action Flow plus Communication Flow> covers the same semantic field as <Sequence Flow plus Message Flow>.

We found that <Pool plus Lane> in BPMN covers a broader semantic field than <Actor Categories> and traditional lines of service blueprinting. This fact results in complete coverage of <Actor Categories>, <Line of Interaction>, <Line of Visibility>, <Line of Internal Interaction>, and <Line of Implementation> from service blueprinting by <Pool plus Lane> from BPMN. However, <Line of Order Penetration> is not covered by any concepts from BPMN. The reason is that while the other lines in service blueprinting separate different actors, the <Line of Order Penetration> considers the involvement of participant entities in performed actions and separates actions to two groups; customer induced and customer independent. This is not the way that <Pool> and <Lane> in BPMN categorize activities. <Pool> and <Lane> can categorize activities in a service process to different participant entities, internal departments, roles, and systems.

Another major finding suggests that BPMN does not provide any concepts regarding customer experience. While the first part of a service blueprint diagram presents <Props and Physical Evidence>, which involves all evidence visible to customer during service process, BPMN lacks any similar concept. Consequently, a BPMN diagram presents less customer specific perspective. In contrast, customer experience and the interaction of customer with the provider is a key issue for service process designers and service process marketers who employ the service blueprinting method to present service delivery.

Finally, it is understood that not all of the artefacts in BPMN are covered by service blueprint concepts. BPMN defines <Data object> to represent the input and output data of activities. Service blueprinting does not provide any information about involved data in a service process. This difference between BPMN and blueprinting

implies that BPMN has an informational view, while service blueprinting does not consider any informational aspects of service processes.

<Text Annotation> is purely used to add information about flow objects in a BPMN diagram. <Group> is used to categorize activities for the purpose of service process documentation. Service blueprinting does not provide any concepts to add additional information to the diagrams. As a result, using these artefacts enable BPMN diagram designers to add extra information about represented concepts and reduce further confusion of service process readers and analysts. These all contribute to a better understanding of service processes presented in BPMN diagrams in comparison to service blueprints.

8. Conclusion

In conclusion, having <Pool> and <Lane> concepts in BPMN enables BPMN users to categorize the activities in many different intended ways including similar ways to <Actor Categories> in service blueprinting. Therefore, BPMN users can depict visible and invisible actions of a customer. Moreover, <Data Object> in BPMN represents data input and output of activities and illustrates an information view of service processes. All of this implies that BPMN is a better process modeling formalism for designing digitized services compared to service blueprinting, which can be used for process simulation and automation.

It is possible also, in a BPMN diagram, to add additional explanations for different represented concepts and to group a set of activities for the purpose of process documentation and analysis. In comparison, Service Blueprinting has a higher capacity to represent user experience and is a suitable process modeling formalism to design a customer-provider interface.

Service blueprinting is an appropriate method when a company has a customer-centric view toward its service delivery process. A company can utilize service blueprints to integrate a customer focus across the organization and enable customer-oriented business practices. Many companies have successfully used service blueprinting to increase customer satisfaction and repeat business.

BPMN can be used when the practitioners aim to depict organizational departments, systems, and roles that are involved in service delivery process in detail. BPMN has the capability to represent any parts of the service provider organization and their interaction with customers. Inter-organizational communications in a BPMN diagram can also be represented very well. Organizational and informational views of BPMN make it a preferable modeling approach for information systems analysts and professionals.

Acknowledgments

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The Evolution of Filial Piety in Ancient China and Its Influence on Neighboring Countries: Taking the Classic of Filial Piety as the Chief Source

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Abstract

Filial piety is a typical feature of Chinese civilization. Represented by the book of The Classic of Filial Piety, the filial culture in China experienced different periods of establishment, development and maturity. The pre-Qin period is the germination time for the filial culture, and the book of The Classic of Filial Piety, a systematic filial thought was formed in Warring States period. The rulers of Han dynasty drew hard lessons from Qin, which was ruined by its tyranny, and decided to govern the country with filial piety. During this period, Dong Zhongshu used Confucian classics to do judgments, preliminarily realized the legalization of Confucianism such as the filial piety. The formulation of the Tanglv Shuyi marks the full legalization of Confucianism, and filial piety was completely integrated into the legal norms. From Tang dynasty, most of the emperors in Chinese history all paid attention to The Classic of Filial Piety, even involved in the compilation of its explanatory notes, advocating to perform filial rule in the country. Since the Tang dynasty, with the strengthening of Chinese and foreign cultural exchanges, The Classic of Filial Piety and filial piety culture widely spread abroad. At the same time some neighboring areas such as Japan, the Korean peninsula and Vietnam was profoundly influenced by The Classic of Filial Piety and the filial piety culture.

Keywords: the classic of filial piety, filial piety, filial rule, cultural transmission

1. Introduction

Due to its peculiar charm, the ancient Chinese civilization not only affects the life of the Chinese people, but also has important influence on other Asian countries' civilization in history. The characteristics of Chinese civilization aroused the interests of many scholars at home and abroad. German philosopher Hegel had good evaluation on the characteristic of Chinese culture, saying that "China was purely constructed on the combination with morality, and the national characteristic is the objective family filial piety." (Hegel, 2006). In Chinese and western academic circles, the filial piety culture was generally acknowledged as the typical characteristics of the Chinese civilization. British philosopher Bertrand Russell was intensely curious about China's filial thought, and he pointed out that "filial piety is not exclusive to the Chinese, but a common phenomenon in the world in a certain cultural stage. Strangely, China still preserves the old habit when its culture has reached a relatively high level. Whereas in ancient Rome and Greek, which also pay attention to filial piety, family relationship gradually became loose with the development of civilization. But China is not the case."(Russell, 1996). It is true with the fact. With the development of Chinese civilization, the philosophy of filial piety and loyalty were combined and consolidated in the form of law, which promoted the continuation and development of filial piety. In a sense, Russell's confusion can be extended to the whole East Asian cultural circle, where filial piety is not dying with the development of civilization in South Korea, Japan and Vietnam. Thus the traditional filial piety has its reasonable aspect in history. Based on the interest in the idea of "filial piety", the research of this classic book of The Classic of Filial Piety becomes necessary. In history, this book is not only constantly legalized in Chinese history, but also widely spread to other Asian countries. From the perspective of the cultural heritage, the spread of The Classic of Filial Piety as well as the thought of "filial piety" has a profound significance to Asian cultural history.

2. The Classic of Filial Piety and Filial Piety in Chinese History

2.1 Filial Piety in Pre-Qin Period

During the Pre-Qin Period, ancient civilization has come into being in China, including the filial culture that we are familiar with. In the process of history, the filial piety originally comes from human's worship for their ancestors. With the appearance of states, the filial concept of "to be kind to one's parents" gradually took shape. When it comes to the Western Zhou dynasty, the filial piety has become the core content in the country's religious belief and political system. Filial piety was officially conformed as a crucial part of "morality". In the spring and autumn period and the Warring States period, the compilation of The Classic of Filial Piety marked the preliminary complement of theorization of filial thought in the period before Qin dynasty.

2.1.1 Filial Concept in Xia, Shang, Zhou Periods

In the time of primitive clan society, the original concept of ancestor worship was formed based on the need of human's survival competition. The concept naturally evolved into concern and care for parents in reality. In Xia and Shang periods, the early concept of nation appeared. With the development of the concept of home and nation integration under patriarchal hierarchy system, rulers developed the thought of theocratic law. The monarchs of Xia and Shang dynasties claimed themselves to be the son of "God", on behalf of whom to rule the people, thus developing the thought of "mandate of heaven, scourge of heaven". Filial piety during this period was mainly in the form of ancestor worship and was deliberately reinforced by religious rites. With the demise of Shang dynasty, the thought of "mandate of heaven, scourge of heaven" underwent great impact, and the rulers of Western Zhou dynasty creatively put forward the idea of "God's will combined with good virtue". The rule of the Western Zhou dynasty implemented the system of enfeoffment on the basis of the genetic connection in reality, and patriarchal clan system in politics. The filial piety at that time made great development on the object of filial piety, both to living parents and his dead parents and ancestors. In accordance with the theocratic law at that time, the filial piety in Western Zhou dynasty served for the real regime and had strong patriarchal ethics. In the guidance of this thinking, the content of filial piety combined with ritual law system, emphasizing the patriarchal authority.

2.1.2 Formation of Confucius Filial Piety in the Pre-Qin period

With the "ritual collapse" in the Spring and Autumn period, tremendous changes took place in social, political and economic structures. Under this background, the filial piety maintaining the patriarchal hierarchy of Western Zhou dynasty had also been shaken, and the thought of theocratic law faced intense doubt. To rebuild social order, Confucius converted the filial concept of ancestor worship in Zhou dynasty into a kind of personal moral cultivation with filial piety to the living parents at its core, making the thought of filial piety popular among the public. Confucius's filial piety view has the following several distinctive features: first, the concept of filial piety has strong humanistic feelings, putting the real world demands at first place. Confucius advocated the concept that "failed to care about the living people, how can a person manage to respect the dead?" This kind of respectful attitude to ghosts satisfied people's inner demand in a turbulent period. Second, the content of filial concept became more rich, and the connotation of being filial to parents was extended from "the satisfaction of material life" to "all around satisfaction of material and spiritual life". Confucius said that "nowadays the one who can support his parents can be called filial, but dogs and horses can also support their parents. Without respect, how can we distinguish ourselves from animals?" The respect toward parents distinguishes people from animal instinct, satisfying parents' spiritual demands. Thirdly, filial piety is not blind obedience to parents' will. It is also filial behavior to point out parents' fault in an appropriate way when the parents are wrong indeed. Generally speaking, in a new social environment, Confucius tried to construct a new family relationship of "amiable father and filial children".

2.1.3 Systematization of the Pre-Qin Confucian Filial Piety-The Classic of Filial Piety

After continuous development of filial piety by Confucius and his disciples, systematic The Classic of Filial Piety appeared in the late Warring States. Because of historical reasons, from the pre-Qin dynasty to the Han dynasty, author's name could not be contained in a book. There are nine statements about the authors of The Classic of Filial Piety, which is said that the authors include Confucius, his students Mencius and so on. It is also difficult to make sure the time of the complement of the book. Structurally, The Classic of Filial Piety is divided into two volumes, including eighteen chapters and a total of 1903 words. However, in such little space, its content is extremely rich. To cater the debates of how to manage state affairs of Spring and Autumn period, the Classic of Filial Piety advocated "filial piety". In terms of content, it mainly consists of two parts: one is real connotation of filial morality of oneself, including the Common People Chapter, Jingxiao Chapter, Bereavement

Chapter, and the other is about the "governing the country with filial concept", developed around the topics of how to support, direct and cultivate people with filial concept.

2.2 The Classic of Filial Piety and Filial Piety Policy in the Han Dynasty

The Han rulers spoke highly of The Classic of Filial Piety and tried to achieve the goal of "governing the country by filial piety". Emperor Wu in the Han Dynasty carried out a policy of proscribing all non-Confucian schools of thought and espousing Confucianism as the orthodox state ideology, and elevated the status of Confucianism. In the central, the state set up Doctors of The Classic of Filial Piety, enhancing the legal status of The Classic of Filial Piety. In the folk, The Classic of Filial Piety was advocated, and the thought of filial piety was widely publicized. The Han Dynasty took filial piety as an important concept of the governing principle politics, taking initiatives to implement the rule of filial piety. In the official selection, it established the recommendation system of inspection after the election, requiring that the recommended candidates must be filial. In order to give expression to its caring for the old, "the imperial edict of pension" was issued. In the judicial practice, the conviction and sentencing were made according to the "filial piety, which realized the legalization of filial piety.

Filial piety ethics was gradually legalized since the Han Dynasty. The concept of filial piety in the Confucian classics has been officially recognized, posing an important impact on Han Dynasty law. During the Western Han Dynasty, The Confucian scholar Dong Zhongshu quoted Spring and Autumn Annals, the Confucian classics, to hear hard cases, which was known as "the spring and autumn period and the tactic prison" in history. A lot of Confucian classics had gained official recognition in the Western Han Dynasty. If cases were heard by using The Classic of Filial Piety, conditions like this were called "the filial piety of conviction".

Case 1: "Jia had no child, picked up the abandoned boy Yi by the side of the road and raised the boy as his own. Yi committed homicide when he grew up. He told Jia the crime, and Jia hid Yi. Question: what responsibility should Jia shoulder?" Dong Zhongshu said: "Jia had no child, but he tried hard to raise Yi. Though Yi was not his own son, how can others know this fact easily. It was said in Book of Songs "there are adoption problems between insects." According to Spring and Autumn Annals: The father should hide the crime for his son, so there is an excuse for Jia's hide of his son's crime and he should not be imposed "collective punishment". (Du You, 1992) In this case, Dong Zhongshu applied the "filial piety" ideology to interpret the Confucian thought of light punishment. The "filial piety" ideology took human nature into consideration, emphasizing the reasonability of relationship between father and son. Under the guidance of this principle, the rule of law can make appropriate changes to the "filial piety".

Case 2: Jia's father Yi had a conflict with Bing because of disagreement, consequently Bing stabbed at Yi. Jia intended to hit Bing with bamboo pole but hurt Yi mistakenly. What punishment should be imposed on Jia? Someone said: "Jia should be beheaded as he hit his father." But Dong Zhongshu said: "I think the father-son relationship is the closest. On hearing that father was caught in a fight with other people, everyone as son will feel worried. Jia must have come to relieve his father by hitting Bing with bamboo pole, so absolutely he did not mean to hurt his father. There is record in Spring and Autumn Annals: Xuzhi's father was sick, so he brought medicine to his father. But because the medicine was not suitable for the disease, his father died. Xuzhi should be sentenced to death according to the law though he was not intentional. However, Spring and Autumn Annals waive Xuzhi's penalty in consideration of his real intent and filial piety. In the case of Jia, Jia's behavior was not beating father, which was the prescript of the law, so he should not be charged of beating his father. (Li Fang, 1959) Dong Zhongshu considered the case generally with the aid of filial piety in the inference of the case. Deciding the case from the doer's subjective motivation is quite reasonable.

Case 3: Jia has a son named Yi, but gave his son to Bing. Then Yi grew up, but it was Bing who raised him. Yi angrily hit Jia twenty with cane because of Jia's improper words, saying that Bing was his son. Jia thought that essentially Bing was his son, in great anger he sued to the county magistrate. Dong Zhongshu settled the case, saying that Jia's relationship with Yi had broken off as he gave Yi to Bing and did not raise Yi though Jia had gave birth to Yi. Therefore, Yi should not be sentenced despite the fact that he as a son had hit his father. (Du, 1992) The focus of this case was the cognizance of father-son relationship. In the view of Dong Zhonghshu, those who gave birth to child but did not raise him were not fit to be called father. The comprehensiveness of the case should be taken into consideration while introducing filial piety into crime. The meaning of filial piety is extensive and is a two-way street. Children should be filial piety to parents, and similarly parents should also fulfill the obligation of child support, only in this way can they be real parents.

Case 4: during the year of Jianan ruled by Emperor Xian in Donghan Dynasty, there were less farm cattle because of wars, so the law regulated that the people who killed the cattle should be sentenced to death. At that time, there was someone who sacrificed the cattle for God's spirit when his father died, as a result, he was

sentenced to death according to the Lvling law. When the news was spread to QiaoChen who was the western governor of city Wei, he asked petition for mercy for the government (Sanguozhi.Weishu). The final decision showed two historic evidences: the first one is that filial piety had been a key factor in conviction which had been verified officially; the second one is that filial piety had been deeply rooted among the people both in people and authority.

2.3 The Classic of Filial Piety in Tang Song Yuan Ming and Qing Dynasties

The Confucianization of law had been completed formally since the Tang Dynasty, and the Confucian thought of filial piety was carried out overall at the national level. Comments on Laws of Tang Empire completed the Confucianization of law officially, which realized the combination of the propriety and law. The penalty for violation of filial piety is more specification in Comments on Laws of Tang Empire, implementing the concept of filial piety's full penetration of the law. Comments on Laws of Tang Empire made the purpose and main theme clear from the very beginning: Courtesy is the foundation of penalty and civilized intercourse; penalty was for political purposes. This view embodied the thought of "Virtue dominates while punishment subordinates". Starting from this point, the Tang Law put filial piety first, implementing the idea of ruling the country by filial piety comprehensively from the emperor to the nobles. Secondly, the Tang Law guaranteed the realization of filial piety content in an all-round way with normative law, relating to five aspects of living, support, illness, bereavement, sacrifice. Finally, the Tang Dynasty imposed harsh punishment on crimes of being unfilial with stern criminal law. In the Tang Dynasty, being unfilial was one of the ten grave crimes, and the doer would be severely punished by law. The case in Tang Dynasty is as follows: During the time of Wuzetian in Tang Dynasty, there was a man named Yuanqing Zhao, whose father was killed by the governor of county, Shiyun Zhao who was promoted to be higher position. In order to avenge his father, Yuanqing Zhao changed his name and killed Shiyun Zhao. As to this case, there were many arguments on it. Someone hold that Yuanqing Zhao should be forgiven due to his filial piety. However, Ziang Chen suggested another way of judgment, which meant Yuanqing Zhao should be sentenced to death according to the national law and he should be well buried with a good tombstone due to his filial piety. Ziang Chen was supported widely by public (Wenuanzhong. Ziang Chenzhuang). This case showed that filial piety has been paid more attention in Tang Dynasty than Han Dynasty, adjusting the balance between law and custom. On one hand, it upheld the majesty of law; on the other hand, it took the criminal's filial piety into consideration after the final sentence and carried forward filial piety.

Rulers in the early Tang Dynasty gave full respect for Confucianism, Buddhism, Taoism. Emperor Xuanzong of the Tang Dynasty established the strategy of governing the country by filial in order to reconstruct social order and actively promoted the wide spread of the thought of The Classic of Filial Piety in the period of his reign. On the one hand, Xuanzong noted The Classic of Filial Piety himself, which reflected the concept that the nation valued this; on the other hand, he took The Classic of Filial Piety as a compulsory subject in the imperial examinations of selecting officials. Song Taizu summed up the historical lessons of social unrest at the end of Tang Dynasty and advocated filial piety actively so as to consolidate the regime. In this time, The Classic of Filial Piety was wide spread. In the Ming Dynasty, Ming Taizu Zhu Yuanzhang made himself an example, promoting the filial piety actively. The position of The Classic of Filial Piety was enhanced in the imperial examination in the reign of Ming Taizu. Qing, as a minority regime, accepted Confucianism on its own initiative and leant the Han culture as it entered Shanhai Pass. Emperors of the Qing Dynasty paid special attention to The Classic of Filial Piety, several successive emperors annotated The Classic of Filial Piety themselves. The role of filial piety played on the folks' loyal to the king was actively pushed by Emperors of the Qing Dynasty. The Qing Dynasty applied filial piety to govern the country and strengthened the crime punishment of violation of filial piety.

3. The Spread of the Classic of Filial Piety and Its Impact on the Surrounding Culture

Civilization in the Tang Dynasty was becoming more and more open and inclusive with the national strength of Tang Dynasty in the early age became powerful. Comments on Laws of Tang Empire, for instance, stipulated: "foreigners who commit crimes should be tried according to their native law." The openness of the Tang Dynasty's culture was reflected in the breadth and frequency of cultural exchange. There was a time when rulers of the Tang Dynasty encouraged foreign students to learn in the Tang. The Tang Dynasty had a tolerant attitude towards foreign students and provided them with sufficient space for development. As for the educational equality, foreign students' fees of daily life shall be borne by the Tang government. On the educational content, the Confucian ethics thought was implemented throughout, and the Confucian classics like Analects of Confucius and The Great Learning were main teaching in the curriculum design. The Tang Dynasty implemented more care policy in the imperial examinations in order to better attract foreign students, and set up "Bin Gongke" to encourage foreign students to participate in the imperial examinations. The Classic of Filial

Piety, analects of Confucius, The Great Learning and so on would become compulsory study of bibliography since the Confucian classics were major contents of the imperial examination. Orientation of the examination contents strengthened foreign students' cultural identity and deepened their understanding of Chinese traditional culture like The Classic of Filial Piety. At the same time, the officials of international students were subjected to the influence of the Tang Law in the selection and assessment of officials.

There was a time when international students were an important medium to the spread of Confucian culture, which had a profound effect on North Korea, Japanese, and Vietnamese. "The Confucian cultural circle" and "Chinese cultural circle", which were talked about in history, were roughly formed during this period.

3.1 The Spread of Filial Piety in the Korean Peninsula

Many factors such as geography, history and culture had contributed to the wide spread of The Classic of Filial Piety and the thought of filial piety in the Korean Peninsula. Geographically, the Korean Peninsula is closely linked with the Tang Dynasty frontier, which was a geographical advantage of nature. In communication, wars between the two parties, in turn, promoted the frequency of the communication. Government of the Tang Dynasty extensively absorbed the Xinluo students to study in Tang, and provided them with opportunities for official positions. Moreover, the government also selected foreign students for official appointments in the imperial examinations. Since The Classic of Filial Piety was included in scientific examination, it was no doubt that the foreign students' thought of Confucianism would be greatly improved, and the thought of filial piety would spread when they came back to their countries. The powerful national strength of the Tang Dynasty and cultural prosperity in turn stimulated Xinluo's "adjacent to the teacher". In 682 AD, Xinluo's God King Wen studied the Tang system, establishing Ancient Chinese Literature Search Museum in Central, educating the children of the nobility with Confucian classics. In curriculum design, he made The Classic of Filial Piety a compulsory subject so as to improve students' accomplishment of Confucianism. The smooth spread of Confucianism in the Korean peninsula was related not only to frequent exchanges between the two sides, but also to the characteristics of the family method of the North Korean nation itself. Traditional North Korean society's politics, economy and family structure were very similar to the Han and Tang Dynasties. On the one hand, the North Korean society had a special affection for the blood based family relationships; on the other hand, the basis of family attached to a lot of political and economic interests. Traditionally, ancestry-conception prevailed in North Korean, which was similar to the Nine-rank system of selecting officials in Chinese Wei and Jin Dynasties. In the caste system, imperial examinations quota was monopolized by those who were born in good family relying on good educational condition, which in some sense made social class elitist. The elite social structure made the ruler have enough strength to spread Confucianism and further consolidate its social status. Doubtlessly, the establishment of Confucianism's dominant position in North Korea had experienced a gradual process. Confucianism enjoyed religious status in North Korea mainly because people of insight tried to abolish corruption of aristocratic and monks and replace it with Confucian ethics and political philosophy during a time of dynasties succession, especially in the time when the Joseon Dynasty was established. When North Korea was in the reign of Yingzong, "Filial Piety" Copy Solution of Primary School, which was representative of Confucian Ethics, was published officially so as to implement Confucian concept of ethics education on the Korean Peninsula. A series of initiatives took by the North Korean royal had promoted filial piety and Confucianism becoming the mainstream ideology of the society in North Korea.

3.2 The Influence of Traditional Chinese Legal Culture of Obedience on Japan

In the 9th century, many Chinese cultural ancient books were imported into Japan, enriching Japan's cultural connotation. Among the books, Confucian classics, the wide spread of The Analects, Mencius, and The Classic of Filial Piety tremendously shocked Japanese circle of thinks. Before Meiji restoration, Japanese culture has been deeply influenced by Chinese Confucian culture, especially in Tang Dynasty. In the 12th year of Empress Suiko period (604A.D.), the Seventeen-article Constitution was proclaimed, whose first item said, "Everyone has a party or something like it. Therefore, he will either oppose to his monarch or father or oppose to his neighborhood". This item reflected that the thought of obedience has been preliminarily admitted by Japan's authority. Because this period belongs to Sui Dynasty in Chinese history, we can get the conclusion that the spread of the thought of obedience in Japan has had a long history.

Seeing from the exchange between China and Japan, we can see that the phenomenon that Japanese students went to China for study dated back to Sui Dynasty at the earliest and peaked in Tang Dynasty with the booming of Tang's culture. In Tang Dynasty, the cultural exchange between China and Japan presented new characteristics. First, the channel of exchange widened in that both official and folk channel were equally emphasized and there were official envoy dispatched to the Tang Dynasty as well as folk overseas students. In

the flourishing period of Tang Dynasty, the size of envoy dispatched to the Tang Dynasty became larger, ranging from 500 or 600 people at most to 200 or 300 people at least. Second, the exchange between China and Japan became bidirectional. Jianzhen Crossed the Ocean to Japan to spread Buddhist culture is one of the best examples. Finally, the extent of exchange broke through from culture to the study of legal system. Take the legalization of obedience ethic for example, Japanese government then tried hard to imitate Tang Dynasty in realizing the legalization of obedience ethic. At that time, Tang Dynasty proclaimed the order of providing for the aged for many times based on combining with the law and etiquette. Later, Japan added "filial piety" to the order of providing for the aged according to its national conditions. "In terms of Japan's Yoro-ritsuryo, it is completely the same with that of Tang. Basically speaking, many of its items totally imitated the original text of Tang's laws and decrees."

The spread means of The Classic of Filial Piety in China and Japan are strikingly similar. The government in the period of Emperor Xuanzong strengthened the spread of The Classic of Filial Piety, ordering every people collect The Classic of Filial Piety for study and observance. At about the same time, the queen of Obedience and Humility learned Tang Dynasty in ordering people collect The Classic of Filial Piety for reading and remembering. After wide spread of the thought of obedience, Japan formed a different social moral concept based on its indigenous culture. Chinese governor strived to realize the integration of family and country, the combination of loyalty and obedience, and the transmission of obedience to loyalty, requiring his subjects extend their obedience to family to their loyalty to the country. But in the level of loyalty, he didn't excessively limit obedience. In Japan, the governor ordered the subjects to "transmit obedience to loyalty". However, he has rigid requirement on loyalty, thinking that loyalty should become the supreme moral code to which all the subjects obey. The governor emphasized absolute obedience of the low position to the high position, aiming at the consolidation of imperial power.

3.3 The Influence of the Thought of Obedience on Vietnam

The spread of the thought of obedience in Vietnam closely link to the spread of Confucianism in it. Accompanied by the southward extension of Chinese territory, the communication between China and Vietnam became increasingly frequent. When central plains dynasty governed Nanyue area, orthodox Confucianism thought was strongly implemented by local authority. For its relatively liberal characters, it was gradually accepted by local people. After Vietnam realized independence and built country, the thought of obedience and loyalty was initiatively popularized by the governor for it catered to governor's concept of governing. Under that background, obedience culture was widely spread. The concept that "obedience is the highest in hundreds of virtues" was approved by the people universally.

4. Conclusion

In the long history of human culture, Chinese culture has deeply influenced the surrounding countries. Traditional Confucianism culture of which filial piety is representative played an important role in the spread of culture. The appearance of filial piety symbolizing the progress of civilization while the composition of The Classic of Filial Piety symbolized the theorization and systematization of obedience thought. In view of the death of Qin Dynasty because of tyranny, the governor of each dynasty advocated governing the country by means of obedience and required the people to transmit their obedience to family to loyalty to governor. To achieve the goal, the governor not only was highly interested in explanation and spread of The Classic of Filial Piety, but also required people to collect and remember it. Coordinating with the goal of governing the country by means of obedience, legalization of obedience thought gradually established. The obedience thought after legalization was approved by the country step by step with the help of compulsion power of criminal law. Echoing with domestic spread of obedience thought and accompanying by the booming of China's national power as well as strengthening of cultural exchange among different countries, filial piety culture spread far as to other Asian countries. Especially in Tang Dynasty, The Classic of Filial Piety and obedience thought accelerated to spread to Japan, Korean peninsula, Vietnam and so on, promoting their cultural progress. The surrounding countries accepted Chinese filial piety culture and at the same time made it localization further on the basis of their national conditions.

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Influence of Agriculture Practices on Collectivist Asian Culture: How Language and Agriculture Shaped East-Asia

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Abstract

Research studies have long confirmed psychological differences between East and the West. East Asians are more interdependent and think in terms of the group; Westerners have more individualistic, analytical thinking. Recent studies of rice farming have indicated how large-scale agriculture affected the collectivist mindset of East Asians; however, rice farming alone was not sufficient to mold cooperative, holistic thinking. Rice farming affected festivals, customs, proverbs, and language structure overall, which would have all led Asians toward interdependent cultural psychology. The article provides an analytical study that scrutinizes Eastern customs and languages, comparing them to those of Western cultures. Generally, the following comparison analysis consists more of widely spoken languages coming from populated and prospering sectors, such as Chinese, Korean or Japanese in East Asia and English, Spanish or French in Western regions. The passage argues that not only was rice farming correlated with festivals but also proverbs, particular ways of answering questions, weather expressions, and language structure overall, including pronouns and articles. This study further implies that a culture of respecting elders and having few sexual partners during an entire lifetime may be associated with rice agriculture.

Keywords: agriculture, proverbs, pronouns, topic-prominent, festivals

1. Introduction

Hwang Fei-zi, a new student from Asia, experienced difficulty adjusting to his new school in America. In the schools he previously attended in Asia, students did not readily declare their opinions. He was hard-working and intelligent, but he was afraid to stand out. He was anxious that his actions might be observed as "showing off" to his peers. Similar to Hwang, many Asian students are not accustomed to declaring their opinions. Even when they know the answers, they choose to speak only when they are questioned. What is the culture that made Hwang so modest? Where did these cultural traits come from? Hardworking, respecting elders, modest, and conservative are generally considered traits of Asian culture.

Recent research has pinpointed the long history of rice farming as a possible answer to this question (Talhelm et al., 2014). Rice farming is labor-intensive work that requires cooperation among many people. The rice farmers select the best seeds by utilizing salt water. Light seeds that float in the water are removed. Paddies have to be irrigated, requiring intricate dikes around the field. Seeds also have to be transplanted. Weeding is a never-ending process that farmers have to face throughout the year. Harvesting is immediately followed by threshing. Furthermore, compared to wheat farming, rice farming requires much labor. In one chapter of the book *Outliers*, the author Malcolm Gladwell states, "Working in a rice field is ten to twenty times more labor intensive than working on an equivalent-size corn or wheat field. Some estimates put the annual workload of a wet-rice farmer in Asia at three thousand hours a year." (Gladwell, 2008).

According to Jared Diamond, the earliest attested domestication of rice took place in China by 7500 BCE (Diamond, 1999). In Korea, carbonated rice seeds were found at the Neolithic site of Heunam-ri, which dates back 3000 years. The cultivation of rice spread from China to Japan, Korea, and Vietnam. Rice cultivation took place before all the dynasties and written languages were developed. Excavations at Kuahuqiao, the earliest known Neolithic site in eastern China, have documented rice cultivation 7,700 years ago (Zong et al., 2007). Rice in Asia has been planted for a long time, and the forming of large labor groups for rice farming has influenced Asian cultures.

Critics, however, note how agriculture is limited to a small number of areas, whereas most people in East Asia maintain their interdependent psychology. In fact, Asian immigrants that do not participate in rice farming across Europe and the Americas are still engaged in their traditional psychology. Although the association between farming and mindsets is well evidenced and interesting, rice farming alone does not seem to satisfy people's question.

2. Answering the Real Question

Indisputably, most Asians live in cities not affected by agriculture labor groups. Young people left country villages in search of job opportunities and education in urban areas. Much of those rice-farming traditions and activities appeared to have ceased. In many rural villages of East Asia, it is hard to spot a single child or even an adult under 40 although the town was full of them before much industrialization took place (EPIS, 2014). Furthermore, even many farming processes have been modernized over the years. Instead of coordinating in traditional labor groups, individuals now employ combine harvesters, insecticides, and rice combines. Currently, as much as 80% of the population choses to live in urban regions (Central Intelligence Agency, 2014), yet it is still interesting to note that not much has changed regarding people's collectivist tendency.

The simple answer is that, although rice farming had ceased in many areas, derived customs, language, and traditions still hold to this day. The labor groups, festivals, and various practices from rice farming influenced collectivist culture in Asia to the extent that collectivist traits and customs still continue in urban areas and even in places far outside of Asia.

The previous passage mentions the basic idea of how agriculture labor shaped collectivist culture. Labor groups were just one way to mold one's cultural identity. The agriculture practices had great influence on the language structure overall, which would have shaped the culture of preceding generations. Consequently, rice agricultural life shaped language structure, proverbs, costumes, and traditions; traits that influence people to this day.

3 Language and Agriculture: How the Collectivist East Asian Culture Survives to This Day

The aforementioned, recent studies corroborate the theory that the history of rice farming fostered East Asians with a more collectivistic, holistic mindset (Talhelm et al., 2014); Before explaining how interdependent culture was implemented in language, it is important to note that languages began to become diversified as farming began (Heggart & Beresford-Jones, 2010). Various anthropology studies demonstrated how writing and keeping archives of written records for distribution, taxation, and payment arose alongside the development of agriculture (Whipps, 2008). Life became more complicated with the advent of farming systems. Agriculture required more tools, knowledge, and recordkeeping (writing).

3.1 Proverbs: Influence of Agriculture

Visible agricultural influences on language are first easily demonstrated by proverbs.

The following proverbs all carry the common theme of "modesty" in a group. For example, There is a Japanese proverb that says a "protruding nail gets beaten down." 出る杭は打たれる. The proverb presents a negative connotation on "standing out" in Japanese culture (Christopher 1983). There is also a proverb in Korean that carries the same motif as well. 모난 돌이 정 맞는다 is a Korean proverb that literally means "protruding stone meets chisel." 人怕出名, 猪怕肥 is a Chinese proverb that can be translated as "fat pigs get butchered, and people who stand out are harmed."

These are all proverbs that demonstrate how "standing out" in the group can hurt someone. The sayings are all related to peasantry and agriculture. Stakes and stones in Japanese and Korean proverbs were raw materials employed for farming (Greene, 2006). Domesticated pigs were an essential part of agriculture, as their droppings were primarily utilized as manure, and they were stable food sources for farmers; raising hogs and planting stakes were menial jobs traditionally performed only by peasants. The proverbs mentioned were created by the peasants who gave meanings to the events in rural life. It was the grouping from rice agriculture that made people give such meanings relating to harmony and not standing out. (Proverbs from East Asian culture are compared below with their Western counterparts).

List of Asian Proverbs (Manser, 2007)	List of Western Proverb Counterparts
人怕出名, 猪怕肥:	The squeaky wheel gets the grease.
Fat pigs get butchered, and people who stand out are harmed.	*The noisy person who protests attracts attention and service.*
出る杭は打たれる:	*Das Rad, das am lautesten quietscht, bekommt das*

A protruding nail gets beaten down.

모난 돌이 정 맞는다:

Pointy stone meets chisel.

một lần khiêm tốn bằng bốn lần tự kiệu

Better to die than to live on with a bad reputation.
(Vietnamese Proverb)

meiste Fett:

The wheel that squeaks the loudest gets most of the fat.

Él que no llora no mama.

He who does not cry does not suck.

Ein Unglück kommt selten allein.

A disaster seldom comes alone.

Other evidence that proverbs were influenced by the peasantry is demonstrated by the aforementioned Korean proverb. The current Korean alphabet, Hangul, was the alphabet widely employed among the peasants. Access to classical Chinese was limited to the rich because of the great difficulty in memorization. It was considered dishonorable for scholars to use Hangul because of to its comparative ease in reading and writing (Yi, 1957). Confucianism was solely taught with classical Chinese during the time; however, there is no equivalent proverb in Chinese characters. It was not Confucianism that created collectivist culture, but some may be tempted to blame the spread of Confucianism. Confucianism was not even widely disseminated in Confucius' time. Rather, it was the other way around; it was the collectivist ideas originating from agriculture that caused nations and dynasties to select Confucianism as the social ideology.

我朝自祖宗以來，至誠事大，一遵華制，今當同文同軌之時，創作諺文，有駭觀聽。 儻曰諺文皆本古字，非新字也，則字形雖倣古之篆文，用音合字，盡反於古，實無所據。 若流中國，或有非議之者，豈不有愧於事大慕華?

(Excerpt from Chosun Dynasty archives that discusses why Korea could not accept newly made Korean characters; that is because Chinese characters demonstrate more sophistication)

3.2 Language Comparison, aside from Proverbs: Modesty

The specific origins of particular language groups have been debated for decades. Recently, Bayesian phylogeographic inference, a framework technique employed to investigate virus epidemics and Language-tree divergence study confirmed Anatolian theory as the winner, out of several scenarios, for the origin of Indo-European (Bouckaert et al., 2012; Gray & Atkinson, 2003). According to various studies, the development of agriculture in the Middle East resulted in three language families. As early farmers dispersed, their languages spread with them. Scholars also agree similarly on Sino-Tibetan, Koreanic, and Japanese language origins, presenting farmer-language dispersal hypothesis as the answer (Diamond 2003). Language dispersal would have been driven by men with hoes (Bellwood, 2008). Agricultural expertise on labor-extensive rice farming entailed flooding, diking, and tool making, aside from recordkeeping and taxation. The intricacy of human language would have expanded with a need for storing knowledge for agriculture and settlements.

3.3 Answering Negative Questions

In addition to proverbs, there was a common way in Asian culture of answering negative questions. People in Asian culture for a long time, ever since the development of rice agriculture and recordkeeping (Shang Dynasty), have avoided answering negative questions directly.

Mandarin

他是不是你的朋友

Is he not your friend?

—是 - shi – (Yes); is so.

    No he is not friend

—不/不是 - bu/bushi (No).

    Yes, he is my friend

In English, however, if you use the negative particle no, you are confirming the negative question;

Do you not like ice cream?

No I do not like ice cream.

East- Asian languages demonstrate affirmative-negative answers, where you reply by assuring the negation or disagreeing with the negative question. It is also known as the truth-based or the polarity-based answering system.

The type of answer that people gave to negative questions is, in many ways, very polite. It goes along with the collectivist theme in Asian culture. An East Asian speaker's answer would alter depending on how the question was asked (Tsujimura 1996). Figuratively, East Asians would never say 'no' to a negative question because 'no' would mean approval, and they would have to reply 'yes' to express disapproval (Progovac 1994).

  In Western speakers' perspective, answers are confusing, and people might view this cultural phenomenon as something that hinders fluent communication; however, negative questions carry much more weight than the actual question itself. Negative questions often have the function of expressing questioner's intent in addition to attempting to obtain an answer from the listener. Unlike their standard form, negative questions carry various connotations, expressing distaste, curiosity, or confirmation.

一Do you not like ice cream? (How come you do not like ice cream?)- curiosity

一Why don't you do the job?   (It would be great if you would do the job.)- distaste

┐一Don't you have a printer at home? (You should have a printer)- confirmation

A Western Speaker's answer would remain the same regardless of how the question was asked.

This shows how Western communication focuses on the speaker, while Eastern communication demonstrates concern for the questioner.

List of Asian Questions & Answers

Japanese

ともだちではないか？ IS HE NOT your FRIEND (Literally, is not friend?)

一"はい" (hai): correct, (subject) is not my friend.

一"いいえ" (iie): no (subject) is my friend

(ええ is more used among friends as a yes)

"はい" (hai) and "いいえ" (iie) for equivalents to yes and no.

Korean

걔 친구 아냐? Is he not friend?

응 (subject) is not my friend

아니 no (subject) is my friend

(The subject is missing in many cases. In many Asian languages, the subject is often implied through context.)

Mandarin

他是不是你的朋友 ？

Is he not your friend?

一是 - shi – (Yes); is so.

    No he is not friend.

一不/不是 - bu/bushi (No).

    Yes, he is my friend.

Cantonese

Do they not eat Siu mei?'

一 hai. 係

  yes (= They don't eat Siu mei.)

  'They don't eat Siu mei.

  一 m hai. 唔係

  not yes (= They eat Siu mei.)

In Cantonese Chinese, yes and no are hai. 係 and m hai 唔係, respectively. The same rule applies.

  In Mandarin, the equivalents to yes and no are to state "是" ("is") and "不是" ("not is")

  List of Western Questions & Answers

German

Ist er nicht dein Freund?

–Ja (Yes, (subject)he is my friend.)

–Nein (no (subject) is not my friend.)

Spanish

¿No es tu amigo?

–Si (Yes, (subject)he is my friend)

–No (no (subject) is not my friend)

French

N'est-il pas votre ami?

Oui (Yes, (subject)he is my friend.)

    (no (subject) is not my friend.)

The only possible answer to why a particular group of people chose not to express negativity directly is because they felt that it could offend others. They are submissively answering the negative question. By not providing a clear answer of "no", people are evading a direct clash with the speakers' connotation in the question. Given that most aboriginal hunter-gatherer societies use polarity-based systems (Western Answering system), it can only be implied that changes must have come from a language-dispersal process involving agriculture. Origins of such practices should be relevant to the basic structures of life in ancient times, most likely, organized farming, which prehistoric life revolved around (Bellwood & Renfrew, 2002). The unchanged practice of avoiding affirmative answers has such a long untraceable history that it is undoubtedly quite difficult discovering when such practices

began (Kleeman & Barrett, 2005). It is best to say that while negative questions have existed from the birth of complex human communication, two distinct forms of response also developed.

It is also clear how answers from Asian culture have avoided possible conflicts that could have made cooperation among villagers difficult. In various cultures where rice farming developed, people learned to cope with each other. Unlike wheat farming, there were historically seasonal labor groups in many countries. Farmers learned to lend each other a hand during the busiest season of the year. Farming was not just a family affair, but cooperative work performed by many villagers who lived close together. To this day, many farmers line up in a row to work in one rice paddy. These labor groups and practices from agriculture influenced collectivist culture in Asia.

People had to rely heavily on each other particularly for making seedbeds and building irrigation systems. Eventually, people learned to adapt to being part of the labor group. Standing out was not a great idea for people back then. Because other people were helping do work for him/her, he/she had to be careful not to offend anyone.

3.4 Common Honorific Structure

Last but not least, Asians countries shared common honorific structures.

Although the honorifics of East Asian countries differ to a great extent, the languages had something in common - when it came to using the word 'I'. The pronoun "I" was avoided and was considered disrespectful at times. This relates back to the East Asian theme of modesty.

In Japan watakushi わたくし or わたし is used as the polite formal form of "I" (Ishiyama, 2008). (Close friends address themselves differently, but in a business setting or organizational meetings, わたし is the most commonly used form.) Korean culture abides to a stricter rule, children cannot say "I" in front of someone older than themselves (Pak, 1975). Like Japan, friends address themselves with the word "I"

Like in Japan, Koreans and Vietnamese avoid the use of word "I" and employ different forms. Specific terms for "I" were written in Old Chinese, which can be traced back to the ancient times of the Shang Dynasty before Confucianism (Baxter & Sagart, 2011). In China, 本人 (běn rén; lit. *this person*) is now sometimes utilized to refer to oneself in a deferential manner.

These expressions should have been useful to express one's modesty in a group. To feel the nuance of such words, it would be similar to saying "In my humble /personal opinion" at the beginning or end of a sentence.

Like negative sentences, different forms of 'I' have a long tradition in East Asian culture. People have done this and avoided the use of 'I' because employing these particular words, people could never assert their opinions. They could only speak in a passive manner. This particular structure enabled people to be modest and humble. From ancient times, people have abstained from making personal remarks for the sake of harmony or cooperation. Even small signs of boisterousness or pomposity could not have helped if people were collaborating and asking for each other's assistance.

Japanese

わたし watashi- another polite word to refer oneself; used much often than わたくし.

ぼく boku -friendlier form of わたし, often used by children (boys).

おれ ore - word that reflects more emphasis on oneself, more informal than boku or watashi.

(Women use different forms あたし or じぶん.)

Korean

나- used when addressing a person same age.

제- used when addressing a person older.

Chinese

我 wǒ- "I" used in most conversations.

本人- used in formal writing as a self-deprecatory term.

Vietnamese

Tôi used when addressing a person your age.

Em used when addressing a person older.

Con / cháu used when addressing elderly.

4. Evidence of Collectivism and Labor-Intensive Agriculture Festivals in East Asia & Topic Prominent Language

Asian languages are topic prominent languages (TPL). These languages have Subject-Object-Verb sequences, distinguished from subject-prominent languages such as English, which follow the Subject-Verb-Object order (Li et al., 1976). Among many shared traits in TPL, omitting nouns is very common during conversations and thus, render the sentence structure O-V or simply V.

It places focus on the verb or adjective and primarily on the speaker's relation to the person. It usually leaves out the actual subject. Having another subject/topic leads to an ambiguous sentence, which can cause confusion. The communication becomes ambiguous for the listener because it has two subjects. However, this particular structure of East Asian languages presents another impact of collectivist agricultural life on the languages. It has a specific role in these societies. In situations where group cooperation was a prerequisite and where there was normally a pure exchange of labor among villagers, speaking against the group's needs or expressing one's opinion directly could have only led to a quarrel (Bray, 1986).

If the topic of the sentences is related more to serious matters such as property, estate, or law, the elusive sentences would have served their function of stopping a major conflict between people.

Mandarin Chinese

	我老公	个子	很高
Transcription:	Wǒ lǎogōng	gèzi	hěn gāo
Gloss:	My husband	height	tall
Translation:	My husband is tall		
:	Mandarin Chinese sentences usually have _S-V-O order like English_, but in many cases, sentences allow the object to become the topic of the sentence.		

Japanese

	肉は	牛肉が	主流	です 。
Transcription:	Niku wa	gyūniku ga	shuryū	desu.
Gloss:	" Meat "-top	" beef "-nom	" mainstream "	"it is"-v
Translation:	"Among meat, beef is [most] mainstream" or " beef is [most] mainstream dish" idiomatic			

Korean

	그	나무는	잎사귀가	날카롭	다
Pronunciation:	Geu	namuneun	ipsagwiga	nalkalob	da
Gloss:	That	tree	leaf	sharp	It is
Translation:	"That tree (topic) leaves (subject) is sharp				

It was not simply just rice agriculture. Furthermore, there were also common festivals at the end and beginning of the season for the villagers that were part of rice agriculture. They also presented a collectivist theme. Vietnam has the mid-autumn festival, which is called Tết Trung thu, also called the moon festival. Vietnamese eat melons in the shape of lotus petals and nine-jointed lotus roots, each symbolizing reunion and peace (Stepanchuk & Wong, 1991). Similarly in Korea, there is a traditional thanksgiving called Hangawi. The day ends in a ceremonial dance, The Ganggangsullae. Women wearing Hanbok form a large circle and hold each other's hand. They talk, play games, and sing the refrain 'ganggangsullae' while rotating clockwise (Yi, 2006). Other Asian cultures, those of Japan, China, Korea, were, similar to Vietnam, involved in these ceremonial group festivals. Simply, these were not a ceremony for deities, but a joyful occasion for people to gather and overcome their differences. The festivals existed to advocate group collaboration and emphasize harmony in a village. Simply on a whim, an individual could not choose to not participate in the ceremony. Everyone had the obligation to take part in the festivals as members of the village. Consequently, agricultural procedures, customs, and festivals caused common traits in topic prominent languages that led East Asians toward a collectivist mindset.

4.1 Lack of Third Person Pronouns, Lack of Articles

Asian cultures commonly lacked third person pronouns and verb conjugations. 'He' and 'she' did not exist; these words, though rarely utilized, were newly made during interaction with Western culture (Ishiyama, 2008). What might be the reason that some languages need third person pronouns and articles that act as identifiers? Third person pronouns and articles were not needed in Asian cultures for the similar reason subjects were often omitted in sentences.

As we know, third person pronouns are utilized when two people are talking about someone else not present in their conversation in an objective manner. He/she relabels the old information with neutrality. The pronouns 'he' and 'she' do not contain any connotation when directing it to the information previously said. The article is used with a noun to indicate whether the particular one is (ones are) specifically identifiable to the listener (Cowan, 2008).

East Asian cultures did not develop 'he', 'she' or articles simply because people knew each other very well. If a culture lacked village festivals or large labor groups, people would not have any occasion to know each person in town. There would be a need for a neutral word form that referred to someone that people did not know. However, people in Asia did not feel the need to objectify each other at the time. For the harmony of the labor group, Asians did not need a pronoun that had an objective connotation. There were third person pronoun forms in languages that either expressed one's reverence or familiarity toward one another, but no actual pronouns were ever employed.

Because villagers were involved in seasonal festivals and labor activities, everyone had the chance to know each other (Wei 2011). Narita is an example of rural region in Chiba Prefecture with a long history of rice farming where the tradition still continues to this day. The villagers gather together for Matsuri each year, an important ceremonial festival, which is held in either late summer or autumn. Strong workers carry mikoshi (portable shrines) in which a local kami (goddess) is installed. While women prepare the foods, men prepare the music and dances for the year. In these cultures, villagers alternated planting one's rice paddies, and they played games, danced and cooked traditional foods for the deities. Thus, there was no need for a pronoun that expressed downright objectivity. The original third person pronouns in these languages were informal, carrying connotation of friendliness, respect or disapproval. The words that acted as identifiers were really unnecessary in these cultures.

4.2 Lack of Expletives - Weather Expressions

Ultimately, Asian culture does not have the word it. One might be tempted to say that Asian people valued harmony and nature; thus, they did not objectify natural phenomenon. The explanation has its limits because Taoism only gained official status in China during the Tang Dynasty. East Asians did use similar words to describe animals, regarding the use of 'it'; however, no actual pronouns existed for describing the weather, climate or time.

Japanese people say 雨が(The rain (is))降っている (falling) /雨が(The rain (is))降る(falls) while Western Speakers say "It is raining".(il pleut/ Está lloviendo). "'It' is raining." compared to "Rain is coming, or falling." implies an objective status. To the ancient farmers who would have said these expressions, 'it' carries their deterministic thought. It is not that rain came, but that "it" is raining, and there is nothing that can be done about it. In the West, in areas where wheat was farmed, agriculture was primarily determined by climate due to less labor needed for agriculture. However, in the East, human labor actually made the difference. Studies have demonstrated the labor-intensive trait of rice agriculture. Further, Gladwell states how this difference in agriculture is further demonstrated by different proverbs from each culture. For example, in Russia, the proverb goes, "If God does not bring it, the earth will not give it while in China and Japan it was, "No food without blood and sweat," and "Work the fields on a fine day" (Arkush, 1984). The proverbs are not just limited to Russia or China. The English proverb states "When it rains, it pours," while, the Spanish saying is "Nunca llueve a gusto de todos" (It does not rain to everyone's taste) (Hirsch et al., 2002). Meanwhile, there is also an old saying in Korea and China that states "rice is made from the sweat and blood of farmers", and "Those who do not work, do not eat."

The weather expressions actually originated also from how agriculture was structured. Asians grew up in an environment where agriculture was labor extensive compared to wheat farming. Thus, considerable emphasis was given to human labor itself. Asians would say, "Rain" is coming, or falling." instead of "It" is raining."

There was no need for Asians to call nature "it". If it was raining, they would say rain is coming simply because, rain was only part of their agricultural life. They still had to weed, transplant seeds, check water levels, thresh,

and prevent crowding. To the Chinese, Korean, Japanese, or Vietnamese, agriculture overall required long labor hours and intensive group work. However, in most cases in Europe, the weather was the most important part of the agricultural life. Europeans were heavily dependent on nature in agriculture.

Like rain, the same rule applied for snowflakes, sun, wind, or even time. Some may question its limitations, but again take a look at what East Asian speakers say about their weather.

French: il ya du vent/ il pleut

English: It is raining, It is windy

Spanish: Está lloviendo. (It is raining)

Korean: 바람(The wind) 이 is 분다 (blowing)

비(The rain) 가 is 내린다 (falling)

Japanese: 雨が(The rain (is))降っている (falling) /雨が(The rain (is))降る(falls)

Chinese: 下(Falls) 雨 (Rain) / 刮(Blows)风 (wind)

(For time expressions, East Asians state the time without any expletive.)

In contrast to English, German, Russian or other Romance Languages, for Korean, Japanese or Chinese, the wind becomes the subject when describing the weather. The literal translation would be something like "The rain is coming", or "the wind is blowing."

For final comments, Romance Languages have some variations regarding the weather. The variations are small compared to the differences with languages spoken in Asia, but they are interesting to note.

In Spanish, it is "Hace viento", "Hace calor", "Hace frio".

In French: "Il fait du vent", "Il fait chaud", Il fait".

There are similar expressions in Italian and Portuese as well.

The phenomenon can be attributed to a more intensive agriculture practiced in the regions.

These were regions that had more decent lands and suitable climates for agriculture: the regions where agriculture generally occurred, as compared to Eastern or Northern Europe, such as in Germany, Britain, or Russia (Eurostat 2007). Crops such as wheat require specific temperature conditions, and soil is vulnerable to erosion, especially, to wind.

4.3Labor Groups and Other Aspects of East Asian Culture

The rice agriculture and its derivative customs can account for other characteristics of East Asian cultures as well, such as respecting elders or having less heterosexual partners. Further studies need to be conducted for verification.

In small familial groups, the head of the family with sufficient physical vigor and experience, usually, the grandfather or father would become the leader (Aldrete, 2004); however, in large labor groups of rice agriculture that brought together large numbers of families, choosing a leader would become a complex problem. It could cause the problem of power struggles among members of the labor group, and there was eventually need for arbitrators who everyone could agree on.

The fairest choice would be the oldest member in the group (Whyte, 1976). Time would let various members of different families to alternately lead the labor group and obviate the abuse of leadership that could have occurred. Because older people were largely involved in decision-making, respecting elders became a natural norm in the society (Gillespie & Nicholson, 2005). Larger labor groups for rice farming, therefore, would have required a culture of respecting elders or generally of persons older than the given person.

Despite the disappearance of rice labor groups, the tradition of respecting elders continues to this day. Japanese, Chinese, and Korean, although they use different languages and honorifics, pay similarly a degree of respect toward seniors or older members of the group (Sung, 2001).

4.4 Number of Sexual Partners

Additionally, the traditions of East Asian agriculture can also explain why there is a difference in the number of sexual partners. The number of heterosexual partners during one's lifetime in Asian culture for dating or engaging in sexual relationships with was traditionally low (Meston & Ahrold, 2010). It could disrupt the harmony because agricultural festivals and groups enabled many people to know each other very well. It was true that powerful statesmen and dynasty kings were granted polygyny (Monger, 2004). However, the historic

situation was different from committing adultery or having multiple partners for peasant men or women (Lee and Wang, 1999). For a long time, it was not acceptable for normal men to have multiple partners during their lifetimes. The condemnation of adultery was much greater, and the tradition still continues today.

5. Conclusions

It was not Confucianism that created collectivist culture. Confucianism was not even popular in Confucius's time. Rather, it was the collectivist ideas originating from agriculture that caused nations and dynasties to select Confucianism as a social ideology. Confucianism was an ideology completely apropos for Asian cultures. With the culture emphasizing group morals and humbleness, people were able to harmonize well in Asia. This made people of Asia put their own benefits aside and work as a group. This particular culture had been the impetus behind some of Asian countries' economic development in the 20th century. As their ancestors had previously done for their labor group in the village, so Asians were able to work as a team for their companies.

In addition, we now may understand partly why Hwang Fei-zi is so modest. It could not have turned out any other way. At a young age, he learned to utilize a different form of "I" to demonstrate that he was modest. Fei-zi was raised with proverbs in his native language that emphasized humbleness. His topic prominent language structure lacked articles and pronouns and had negative questions answered passively. Moreover, there were continuous village and family traditions emphasizing group harmony and cooperation. Although Hwang Fei-zi was never part of the labor groups, the tradition, customs and language that descended from the ancient labor group shaped his modest characteristics.

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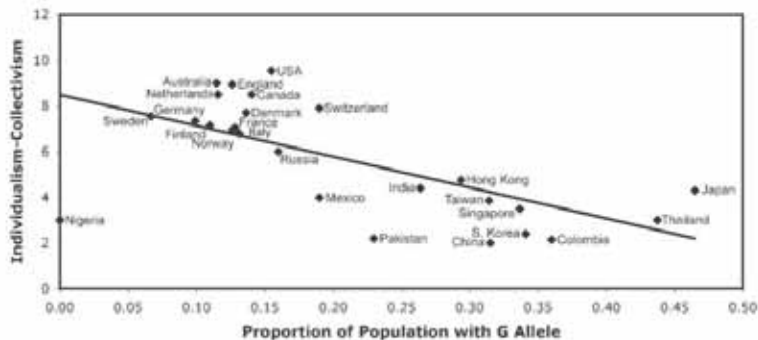
Figures

Fig. 1 Correlation between the proportion of the population with the G allele of the A118G polymorphism and individualism-collectivism [Suh et al., 1998; r(26) = 0.65, P < 0.001]; higher scores represent greater individualism and lower collectivism.

Figure 1. East Asian countries scored higher in the individualism-collectivism scale compared to Western nations

(Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998)). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. (Journal of Personality and Social Psychology, 74(2), 482-493. doi:10.1037//0022-3514.74.2.482)
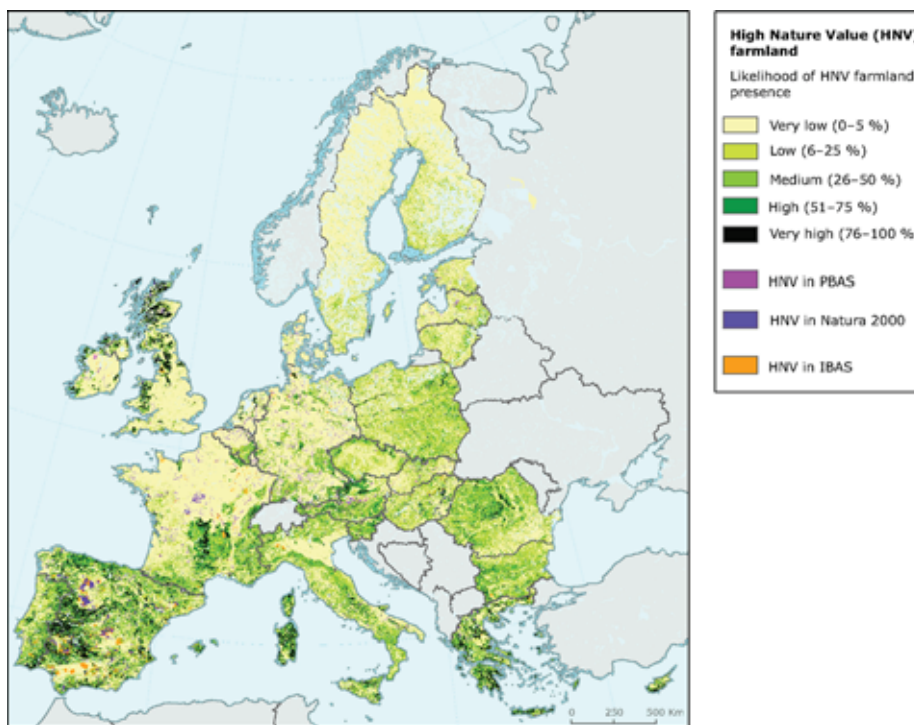
Figure 2. Regions more suitable for Agriculture: correlation between weather expressions and actual farming High Nature Value Farmland in Europe. (2009, November 12). Retrieved from http://www.eea.europa.eu/data-and-maps/figures/high-nature-value-farmland-in-europe

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Communicative Language Learning and Curriculum Development in the Digital Environment

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Abstract

Many schools in non-native English speaking countries are making efforts to implement English Immersed Education (EIE) in order to teach students English in context. Concurrently, the field of education is changing with the rapid evolution of technology, and with teachers and students becoming more technologically adept, ways of teaching and learning are advancing. Computer-supported collaborative learning (CSCL) is readily being applied to second language learning, as technologically rooted activities can provide many benefits to English Language Learners (ELLs). The aim of this study was to explore how the design of collaborative tasks within a virtual environment can enhance ELLs interactive communication, in terms of quality and quantity. First, literature on pedagogical applications of virtual worlds, in a general context and in a language learning context, is explored, as is the notion of cultural relevance and its impact on learning. Design-based methodology was employed, as five different virtual tasks were designed and implemented at Chungwhang Middle School and Indam High School in Seoul, South Korea. Results showed that the amount of interactivity among students and the nature of that interactivity were positively affected through the use of task-based virtual activities. Higher levels of conversation, in terms of quality and quantity, were developed when tasks focused on culture. Thus, further research is suggested on designing culturally relevant quests based on academic content.

Keywords: collaborative language learning, curriculum design, digital and smart learning, instructional technology, multicultural education, virtual environments

1. Introduction

1.1 English Immersed Education and Computer-Supported Collaborative Learning

Schools in many countries are implementing English Immersed Education (EIE) across their curriculums with the rationale of teaching students English in context. This enables learners to think, organize, and share their ideas fluently as well as participate in higher level interactions.

At the same time, computer-supported collaborative learning (CSCL) is being applied to second language learning (Ge, 2011; Lund & Rasmussen, 2008; Stahl, 2006). Virtual environments that provide chat functions and avatar interaction in 3D environments have been studied as a tool for facilitating collaborative learning (e.g., Baydas et al., 2015; Molenaar et al., 2011; Silseth, 2011; Prensky, 2001). With a growing population of technologically competent students, many researchers have claimed that virtual environments have considerable potential for language learning and teaching (e.g., Luccioni et al., 2015; Thorne & Reinhardt, 2008). There is great interest in how these environments can be used as part of EIE and how activities can be designed to engage students within content learning in the target language (Lund & Rasmussen, 2008; Kim, 2011). If tasks were designed for virtual world learning activities in ways that could increase both the quantity and the quality of authentic communication among learners, both language and content learning could be positively impacted.

There have been numerous claims that virtual environments are beneficial to language learning, but there has not been enough empirical evidence about how the virtual world can impact language learning (Kim et al., 2012). This study explores the notion of offering an English-immersed virtual environment for language learning and specific practices about how it can be incorporated into the curriculum development process.

1.2 Relevant Scholarship

Many studies of computer-supported collaborative learning for ELLs have been conducted on communicative approaches to second language acquisition. Research on the relationship between computer-mediated

communication and second language acquisition (SLA) has emphasized how technology has increased learner communication. The focus on the amount of language production has been discussed through SLA theories, as learners' language acquisition capabilities are positively affected by the quantity of their communicative input and output (Krashen, 1982; Swain, 1985). Researchers have claimed that communication, which is understood as a referential exchange of information—a sharing of meaning (Breen et al., 1980; Canale & Swain 1980; Krashen, 1982), significantly benefits second language acquisition. Therefore, one of the most important factors contributing to successful negotiation of communication is the type of activity (e.g., Fidalgo-Eick, 2001; Smith 2003). However, even though the type of activity, or task, influences the quantity of communication, it is not solely responsible for enhancing communication; other characteristics need to be considered. Thus, it is important to highlight the characteristics of a specific task, rather than one task type or any other primary factor of the learner's negotiation during task-based language learning (Fidalgo-Eick, 2001). More importantly, Zheng and her colleagues argued that culturally relevant curriculum assists ELLs with interaction in virtual environments (Zheng et al., 2009). This, therefore, needs to be further investigated as it relates to task design. From a sociocultural perspective, the context of the tasks can provide further explanation regarding how specific tasks can enhance opportunities to negotiate meaning in second language learning. Therefore, there is a need to investigate how students learn according to the content, culture, and context of a task.

1.3 Research Design

In this study, empirical findings were collected from the Collaborative English Language Learning through Avatar (CELLA) program, a English Language Learning (ELL) curriculum that utilized a virtual environment to design, teach, and observe learners. The virtual environment, known as Quest Atlantis (QA, http://www.questatlantis.org/), is a multi-user 3D educational computer game designed to engage middle school children in pro-social, educational tasks (Siyahhan et al., 2012). The first step in the study was to examine the impact of task design on learner interaction. After a pilot study using CELLA, it was realized that simply placing students in an environment and expecting them to engage in collaborative English communication was ineffective. Rather, provocative and engaging student activities needed to be created and completed—tasks that would nurture the production of high-quality communication. Sociocultural theory and the communicative approach to second language learning suggest that tasks designed to nurture rich interaction should have an explicit focus on cultural relevance (Foster & Ohta, 2005; Watson-Gegeo, 2004), as culturally relevant pedagogical activities have been found to support learning, authenticity, and the development of 21st century skills (Ladson-Billings, 1995). Therefore, the goal was to create activities within the virtual environment that could accomplish this, research the outcomes of such attempts, and then cycle findings back into the activity design. This design-based approach (Kelly et al., 2014), allowed for simultaneous design and research on learning as it contributed to the curriculum development process. Thus, the aim of the study was to explore how collaborative tasks could be designed for EIE in a virtual environment in order to enhance learners' interactivity, both qualitatively and quantitatively.

2. Methodology

2.1 Program Background

Within CELLA, QA was chosen as the virtual platform to house learning tasks. QA is a 3D immersive atmosphere with over 50,000 registered members worldwide that allows users to collaborate in virtual environments, as they can engage in educational quests and communicate with others through the use of avatars (Barab et al., 2005). QA is different from other 3D virtual environments because it is designed for educational purposes; it uses game-like tasks and features, and it also has instructional affordances for teachers to offer just-in-time instruction, timely feedback, and customized curricular activities through their flexibly adaptive platform (Thomas, 2005). QA provides English language learners (ELLs) the opportunity to meet native English users. Such interaction between non-native English speakers (NNES) and native English speakers (NES) may help learners increase their comprehensible input (Chen, 2005), which thereby contributes to their second language competence. They also interact with the 3D virtual environment itself and explore the objects in it (Barab et al., 2001), as users are exposed to signs, pop-up messages, and audio in English.

Within QA, the teacher's toolkit allows teachers to assign specific tasks related to their students' work (Thomas, 2005). Tasks include assigning quests to learners, reviewing and evaluating learners' work, assigning points and rewards to learners, and monitoring students' chat and e-mail history. Considering the context, culture, and content of a task is crucial for understanding language learners' negotiation (Watson-Gegeo, 2004; Zheng, 2006). With the toolkit, teachers are able to run their own QA classroom, customizing the experience in ways they find most appropriate for their own context (see Figure 2).
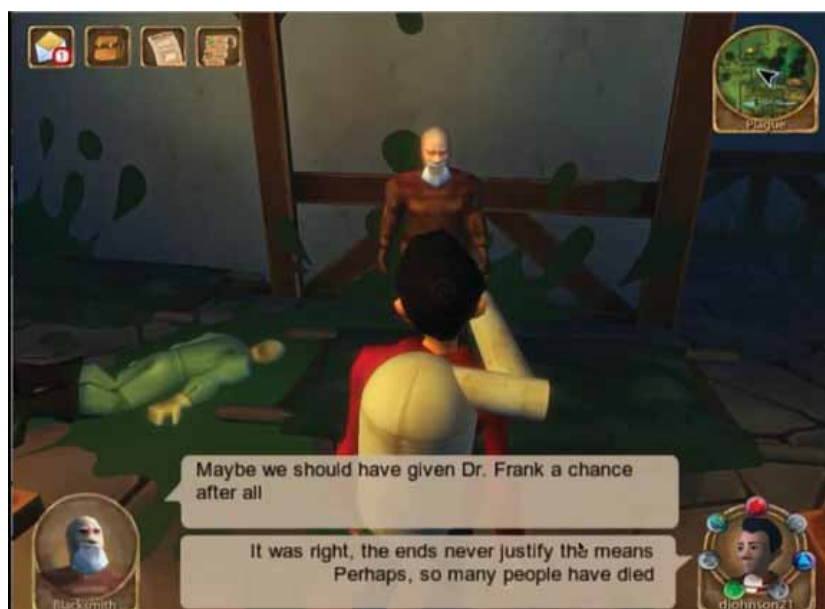
Figure 1. Screenshot of the QA virtual environment

Figure 2. Screenshot of the Teacher's Toolkit (www.questatlantis.org)

2.2 Data

a)   2.2.1 Participants and Setting

The study included 20 participants in naturalistic settings: Ten in Case Study A and 10 in Case Study B. The former took place at Chungwhang Middle School, a public school located in Seoul, South Korea. The first-year middle school students met for two hours per week for 15 weeks, and a total of five quests were completed. The students worked in pairs for computer-supported collaborative English learning. Even when students were outside of the class, they were allowed to log in to QA using their individual log-in information. The population at this school included very few students who ever lived in English-speaking countries, and all of the students used Korean as their first language. The school opened in February 2010 and only had about 500 students.

Case Study B occurred at Indam High School in Seoul, South Korea. The second-year students met for one hour per week for 15 weeks, and a total of three quests were completed. Students in this case study were also grouped into pairs. Similar to the school in the first case study, Indam High School provided ELL education.

b)   2.2.2 Data Measures

Data collection included (1) chat logs from the QA environment, (2) direct observations of students interacting in QA for SLA, (3) participation field notes for learning possible QA phenomena, (4) document analysis of artifacts produced by asynchronous cooperation, and (5) interviews with participants.

c)   2.2.3 Procedures

In collaboration with the English teachers in the schools and considering the cultural context of the local environments, existing tasks called quests were redesigned. For this study, five quests were redesigned using the QA teacher toolkit: three quests were culturally structured, one was an introduction quest, and one was not specific to culture. The quests were analyzed through the theoretical analysis tool called Communication for Action (see 2.3).

Table 1. Overview of quests

Quest Name	Main Action	Purpose	Characteristic	Case A	Case B
Introduction (IN)	Introduce themselves	Become accustomed to QA Use familiar expressions	n/a	Implemented	
Pop Culture (PC)	Give examples of pop culture Explain reasons for choosing their examples	Use unfamiliar expressions Begin culturally relevant discussions	Culturally relevant Discussion	Implemented	Implemented
Comparing Culture (CC)	Compare Korean culture with Western culture	Provide directions Start discussions	Culturally relevant Information gap	Implemented	Implemented
Proverb (ID)	Interpret unfamiliar cultural proverbs Create own cultural proverb	Increase language interaction in respect to culture in different ways	Culturally relevant Information gap	Implemented	
Science (SC)	Discuss Avogadro's law for explaining why balloons burst in the sky	Prompt scientific neutral discussions	Culturally neutral discussion (Already learned content in science class)	Implemented	Implemented

In the Introduction (IN) Quest, students were asked to introduce themselves to their conversational partner in the QA environment, and each pair presented information about their partner. This task served three purposes: to familiarize students with QA, to give students the opportunity to express familiar things English, and to enable students to improve their writing skills in the CSCL environment.

The Pop Culture (PC) Quest allowed students to discuss Korean pop culture, as they presented and discussed examples and explained their impact. The goal was to motivate students to actively communicate using unfamiliar expressions, though grounded in cultural context. Zheng (2006) asserted that when NES and NNES engage in a culturally driven dialogue and they discuss the non-native speaker's culture, the non-native speaker plays the dominant role in the dialogue. Additionally, students were offered several subtopics to choose from, which in turn, helped them negotiate with each other. Last, given the relevance of the topic, it was projected that students would connect their existing knowledge to the knowledge learned from the dialogue.

The Comparing Culture (CC) Quest built on the strengths and weaknesses of the PC Quest, as modifications were made after the PC Quest's implementation. While the PC Quest successfully guided students beyond the use of fixed form dialogues through choosing familiar cultural topics, students were reluctant to communicate about topics they felt were difficult to discuss in English. Therefore, the CC Quest, an information gap task, was designed for students to compare Korean and American cultures. Because students were familiar with the Korean culture, the modified quest was thought to help students easily share their opinions and substantiate them.

The purpose of Proverb (ID) Quest was to analyze the pattern of language interaction and culture. Unfamiliar proverbs were shown to the students, and they attempted to search for their meaning while engaging in discussions. Additionally, students created their own proverbs that applied to their lives.

The Science (SC) Quest explored student interaction during discussions on neutral topics. The intent was to discover the type of interaction that occurred when students discussed a familiar, neutral topic. The topic chosen, Avogadro's law, was scientific and one that students had previously studied. Middle school students learned

about it earlier in the year, and high school students learned the rule in middle school and studied it more in high school. It was assumed that students' previous knowledge of this topic would help stimulate English discussions. Thus, the main task of this quest was for students to express their knowledge in English and to accumulate knowledge by cooperating with partners.

In Case B, the structure of the class was similar to that of Case A; however, the high school class schedule was tight and somewhat rushed in comparison to middle school, so two of the five quests were excluded. Considering the students' level and the similarities of the quests, the researchers excluded the IN and ID Quests.

2.3 Theoretical Analysis

In this study, design-based research methodology was used (Kelly et al., 2014; Design-Based Research Collective, 2003), as a tool was developed for data analysis based on this approach. The tool used in this research was a system of categories called Communication for Action (CfA). It was created after an inductive process, and the analysis' results were integrated into a systematic coding scheme. The CfA coding scheme was used for this research because it included all of the categories of the traditional communication analysis tool, known as the Negotiation for Meaning (NfM) tool (Pica, 1994; Varonis & Gass, 1985). The NfM tool included the conversation categories (a) clarification requests, (b) confirmation checks, and (c) comprehension checks. However, Zheng (2006) as well as Foster and Ohta (2005) asserted that the NfM tool was insufficient in terms of its sensitivity for analysis when the sociocultural perspective of learning and ecological psychology is considered. They insisted that in addition to the three conversation categories, negotiation moves, such as assistance and direct pick up triggers should be used (Hall & Verplaetse, 2000; Watson-Gegeo, 2004; Foster & Ohta, 2005). They named the new tool Negotiation for Action (NfA) (Zheng et al., 2009).

CfA was developed through the comparison of several empirical analyses of data from earlier analysis tools, including NfM and NfA. Initially, the NfA tool was used, and it not only caused confusion regarding input and output between learners but also provided insufficient distinctive analysis in the data. Thus, it was recognized that only limited meaning could be drawn using the previous tools, and it was, therefore, necessary to modify existing tools. This modification was able to capture interaction between pairs of students, which was not possible using the previous measures. The CfA tool was then used as a lens to view and categorize data. This categorization of codes was accomplished with the use of the qualitative research software package QSR N-Vivo 8.0. The main categories, subcategories, and the codes used for the CfA tool are listed in Table 2.

Table 2. A tool for theoretical analysis

Communication for Action (CfA) Tool		
Main Categories	Subcategories	Codes
1-Proper Communication	Stages of Content Knowledge	1-1-Precise social utterance exchange
1-Proper Communication	Stages of Content Knowledge	1-2-Precise information exchange
1-Proper Communication	Stages of Content Knowledge	1-3-Precise idea exchange
1-Proper Communication	Stages of Content Knowledge	1-4-Precise discussion exchange
1-Proper Communication	Explicit Negotiation Moves	1-5-Precise direct pick-up exchange
1-Proper Communication	Explicit Negotiation Moves	1-6-Precise utterance but co-construction
2-Communication Linking	Stages of Content Knowledge (negotiating actions implicitly through context)	2-1-Incorrect social utterance but proper reaction
2-Communication Linking	Stages of Content Knowledge (negotiating actions implicitly through context)	2-2-Incorrect information utterance but proper answer
2-Communication Linking	Stages of Content Knowledge (negotiating actions implicitly through context)	2-3-Incorrect idea utterance but proper answer
2-Communication Linking	Stages of Content Knowledge (negotiating actions implicitly through context)	2-4-Incorrect discussion utterance but proper reaction
2-Communication Linking	Explicit Negotiation Moves (negotiating actions explicitly through communication break or assistance)	2-5-Incorrect utterance and clarification request and proper reaction

2-Communication Linking	Explicit Negotiation Moves (negotiating actions explicitly through communication break or assistance)	2-6-Incorrect utterance and confirmation check and proper reaction
2-Communication Linking	Explicit Negotiation Moves (negotiating actions explicitly through communication break or assistance)	2-7-Incorrect utterance and co-construction
2-Communication Linking	Explicit Negotiation Moves (negotiating actions explicitly through communication break or assistance)	2-8-Incorrect utterance and other-correction
2-Communication Linking	Explicit Negotiation Moves (negotiating actions explicitly through communication break or assistance)	2-9-Incorrect utterance and self-correction
2-Communication Linking	Explicit Negotiation Moves (negotiating actions explicitly through communication break or assistance)	2-10-Incorrect direct pick-up trigger and pick-up
2-Communication Linking	Explicit Negotiation Moves (negotiating actions explicitly through communication break or assistance)	2-11-Having difficulty but trying when encouraged
3-Communication Jumping	Stages of Content Knowledge (negotiation failure without assistance)	3-1-Social utterance and wrong (NO) reaction
3-Communication Jumping	Stages of Content Knowledge (negotiation failure without assistance)	3-2-Information utterance and wrong (NO) answer
3-Communication Jumping	Stages of Content Knowledge (negotiation failure without assistance)	3-3-Idea utterance and wrong (NO) answer
3-Communication Jumping	Stages of Content Knowledge (negotiation failure without assistance)	3-4-Discussion utterance and wrong (NO) reaction
3-Communication Jumping	Explicit Negotiation Moves (negotiation failures with assistance)	3-5-Having difficulty but giving up even when encouraged
3-Communication Jumping	Explicit Negotiation Moves (negotiation failures with assistance)	3-6-Incorrect utterance and clarification request but giving up

Proper communication is the pattern in which communication is processed with accurate expressions. Four precise utterance exchanges (1-1–1-4) and two negotiation types (1-5–1-6) were analyzed.

Communication linking occurs when some incorrect expressions are delivered. It mainly occurs in conversations that are beyond the speaker's ability in the negotiation-possible range. Implicit communication linking—four implicit negotiation types (2-1–2-4), and explicit communication linking —seven explicit negotiation types (2-5–2-11), were included.

Communication jumping refers to cases where conversation is not coherent because meaning conveyance fails negotiation. It mainly occurs in conversations when speakers attempt to go beyond their expression capacity. Implicit communication jumping—four negotiation failures without assistance (3-1–3-4), and explicit communication jumping—two negotiation failures with assistance (3-5–3-6) were included.

Stage of content knowledge denotes the level of difficulty with respect to content. More complex content knowledge engagement is possible at a more advanced stage of language development. Social utterance (1-1, 2-1, and 3-1), information utterance (1-2, 2-2 and 3-2), idea/opinion utterance (1-3, 2-3 and 3-3), and discussion utterance (1-4, 2-4 and 3-4) were categorized.

Implicit negotiation moves transpire when negotiation for action occurs indirectly, as users respond accurately after recognizing their counterpart's intention. As a result, continuous conversation with the counterpart starts through content, culture, and context knowledge.

Explicit negotiation moves occur when the partner's utterance has a direct effect on the negotiation process. Clarification requests, confirmation checks, comprehension checks, co-construction, self-correction, other-correction, direct pick-up, and encouragement are all examples.

Negotiation trying refers to instances when a speaker tries to explicitly negotiate an incorrect expression (2-5–2-11, and 3-1–3-6).

Using the analysis tool, the quantity of the CfA, which is the meaningful conversation happening per task as communication coded in all categories, was measured and compared. Second, communication characteristics were highlighted through patterns of communication. Proper communication is goal-directed conversation on the level at which students make correct expressions and respond to them. Communication linking is conversation that is "a little bit beyond" their ability. Sentences that cannot be correctly constructed are divided into one form negotiated implicitly and another form negotiated through communication breaks or assistance, which depends on the context or content. Communication jumping takes place when students go beyond their power of expression and therefore the conversation topic derails. This case is sectioned into failure of implicit negotiation

and that of negotiation despite a response by the counterpart. Third, it is possible to study the stage of content knowledge that the learner expresses in English within each task. By dividing the learners' expressions into stages ranging from social expression to discussion utterance, this study sought to explain the interrelation of the stage of knowledge according to task.

3. Results and Discussion

3.1 Case Study A: Chungwhang Middle School

d)   3.1.1 Introduction Quest

The chat log was analyzed using CfA for quantity of language output, communication patterns, the stages of content knowledge, and the types of negotiation moves. In this quest, 163 interactions were coded, representing 20% of the total, indicating active communication.

The analysis of the communication patterns showed that 61% of the communication was classified as precise sentences and proper responses. Approximately 29% was categorized as examples of the conversation carrying on with incorrect sentences, and 10% of the communication was coded as "failed conversation." Of all the quests, this one had the highest rate of proper communication. Among the three stages of content knowledge, information-related utterances were the highest (78%) using proper communication (see Table 3). An example from the chat log shows communication patterns used in the IN Quest.

Sieun: What's your name? (precise information asking)

Subin: my name is subin (proper answer; 1-1 precise information exchange)

Subin: where are you from? (precise information asking)

Sieun: I'm from KOREA (proper answer; 1-1 precise information exchange)

Sieun: Do you have brother? (precise information asking)

Subin: yes. (proper answer, 1-1 precise information exchange)

*   Do you have brother? (precise information asking)*

Sieun: Yes. (proper answer; 1-1 precise information exchange)

*   How old is your brother? (precise information asking)*

Subin: 18. (proper answer; precise information exchange)

The analysis of the stages of content knowledge that students used in the dialogue revealed that they usually spoke in precise sentences when they shared information about daily life, which they had learned in school. Thus, they were only able to talk about things they had learned in fixed forms. If one partner used an incorrect sentence, the other could still respond to it based on memory. Most of the topics addressed were simplistic, such as favorite color, hobby, and food.

Table 3. Results of middle school students' introduction quests

	Proper Communication	Communication Linking	Communication Jumping	Total	Percentage
Information Exchange	54	17	2	73	78%
Idea Exchange	14	2	4	20	22%
Discussion Exchange	0	0	0	0	0%
Total	68	19	6	93	100%

Also, despite students' English proficiency levels, they did not have difficulty introducing themselves. Communication was mostly accurate, and proper answers were given in response to questions. Last, dialogues were mostly associated with sharing information, so students did not have the opportunity to introduce original ideas or opinions. Discussions never occurred between students, as most did not ask follow-up questions but instead accepted the other's statement.

From this quest, a few implications can be drawn. It is important to give students familiar topics to get them to actively talk to one another, as they communicate more when the topic is familiar. Conversely, a quest about something new is also needed to break students from fixed forms learned in English classes. Finally, the quest has to be designed to encourage students to say what they think and not just ask them to provide basic information.

e)   3.1.2 Pop Culture Quest

Compared to the IN Quest, the quantity of communication decreased in the PC Quest, and students used fewer familiar sentences. This led to an increased rate of communication linking and jumping, yet it stimulated higher level thinking.

Table 4. Results of middle school students' Pop Culture Quests

	Proper Communication	Communication Linking	Communication Jumping	Total	Percentage
Information Exchange	24	14	4	42	41%
Idea Exchange	18	20	8	46	45%
Discussion Exchange	3	5	7	15	15%
Total	45	39	19	103	100%

The rate of idea-related utterances increased significantly (45%) in comparison to the previous quest. Students communicated their own thoughts as well as direct facts. Even though incorrect sentences were prevalent, students tried to express themselves and worked hard to understand one another without using fixed phrases.

Sieun: What do you do with mobile phone much? (incorrect idea; asking: What do you usually do with your mobile phone?)

Jihyun: I send some message to my friend (proper answer: I usually use my mobile phone to send messages to my friend; 2-3-incorrect idea utterance but proper answer)

Sieun: ah~ What does it inflence to your life? (incorrect discussion utterance)

Jihyun: ……(having difficulty; no answer)

Jihyun: How about you? What pop culture do you like? (3-4-discussion utterance and wrong (NO) reaction)

The results showed there was little opportunity for active discussion. Only 15% of the interactions were coded as "discussion exchange." Therefore, most of the interactions were simple exchanges of information or ideas. Indeed, most communication jumping was found at the discussion level. The following student interview illustrates this phenomenon.

Researcher: You hardly talked about the effects of pop culture on society. Were you having a difficult time explaining the impact?

Siyeon: No. We already learned about it and had a debate over the topic, such as effect of drama on psychology of adolescence or fan's attitude for celebrity in a class.

Researcher: Why did you not talk about it in the quest?

Siyeon: Sir! I also feel easier in saying of it in Korean but it is hard to explain that in English. I don't know how to start.

Researcher: Do you mean that it is hard to talk about it in English?

Siyeon: Partly true. Jihyun and I all knew about it but I felt a little bit trouble in saying that in English. So, we just talk about what we can.

Students felt it was difficult to express their own thoughts on a topic regardless of their knowledge about it. In this respect, the quest needed to be redesigned to stimulate learners' natural discussion.

f)   3.1.3 Comparing Culture Quest

Table 5. Results of middle school students' Comparing Culture Quests

	Proper Communication	Communication Linking	Communication Jumping	Total	Percentage
Information Exchange	16	18	3	37	23%
Idea Exchange	25	34	19	78	48%
Discussion Exchange	7	21	19	47	29%
Total	48	73	41	162	100%

The CC Quest was the highest rated, accounting for 229 CfA codes (29%), making it the most active. Communication linking was the most common communication pattern (48%), as students tried to make original sentences when they made comparisons between the two cultures.

As shown in the table above, idea exchange occurred in proper communication and in communication linking with the greatest frequencies, generating considerably more idea exchange than information exchange. Even though the discussions consisted of mostly incorrect sentences, higher level expressions were formulated, as seen in the following chat log.

> Sieun: Frankly, I like American's more. Because it is hot or sweet. How about you?
>
> Jihyun: me too;;; but korean food is good for our health (1-3-precise idea exchange)
>
> Sieun: Yes, But my body (?) likes hot and sweet foods more than healthy food. (incorrect discussion utterance)
>
> Jihyun: me too.. because we like eat junk food.. Because that can make easy (an additional example; incorrect discussion utterance)
>
> Sieun: Yes, it can save time. (proper answer; 2-4-incorrect discussion utterance but proper reaction)
>
> Jihyun: so we can eat break time. that's good in american's food (incorrect discussion utterance)
>
> Sieun: Of course. (proper answer;2-4-incorrect discussion utterance but proper reaction)
>
> Sieun: but there are many bad things. It is unhealthy. (an additional counterexample)
>
> Jihyun: yes that is bad one (proper answer; 1-4-precise discussion exchange)
>
> Sieun: However!! I like americans' more.

Whether communication linking or jumping, communication beyond the learner's ability played an important role. Students tried to use less familiar sentences to explain American culture, and debates occurred as students shared opinions. Even though the sentences were incorrect, students tried their best to express their thoughts. The following interview shows that culturally relevant tasks can trigger deeper communication and stimulate discussion of indirect experience.

> Jihyun: When I introduced myself, I just said about what I already knew. It was boring a little bit. As to the scientific topic, I had no idea of it. Comparing cultures was very fit into the English topic. First, I started seeking daily life in South Korea and guess Americans' life corresponding to Korean. It naturally made me talk about why there is difference between them.
>
> Researcher: Your life triggered curiosity, didn't it? By the way, did you also like Korean pop culture?
>
> Jihyun: Well, you know, I felt trouble in relating pop culture to my daily life. It felt as if it is none of business to think about the impact of pop culture on me. And it is so hard to talk about it in English.
>
> Researcher: Do you think that you can say about it in English, because it was associated with your culture, though you had no idea of it?
>
> Jihyun: Yes, it is. There are many things to talk about in English around us, such as school life and food. Thus, I could naturally compare them and talk about them in English. I guess Korean has more apartments and the United State has more houses, which might result from relative size of two countries, right?
>
> Researcher: Sometimes, you were not able to express your thoughts in English. Does it make you feel troubled?
>
> Jihyun: I did my best to convey what I want to say. But from time to time, I failed to make something.
>
> Researcher: What kind of thing?
>
> Jihyun: I wanted to tell why American did not distinguish words for the elderly from words for the younger. But I couldn't.

The CC Quest provided a topic that helped students actively give their opinions and use new sentences. Students shared specific examples through their knowledge of South Korean culture, and this allowed them to explore the less familiar American culture and helped them to actively make comparisons between the two cultures.

g)   3.1.4 Proverb Quest

Results showed that the quantity of communication ranked second highest, following the CC Quest, and the rate of communication linking was almost the same (41%) as that of the CC Quest (48%). This showed that participants eagerly expressed their opinions without using fixed form dialogue, and they tried to create sentences that actually expressed their thoughts.

h)   3.1.5 Science Quest

The results showed that the students were incapable of explaining the scientific phenomenon, and the quest yielded a decreased amount of conversation. Only 9% of the interactions were coded as "communication for action." Similarly, the rate of communication jumping rose sharply, which was associated with avoidance of the topic. A detailed analysis of the conversation showed that students spent most of the time in social activity rather than in any discussion of the content. The only discussion that focused on the topic was about the balloon bursting. Students could not explain the rationale for the balloon bursting and would not attempt to discuss it, as indicated by the high rate of abandonment.

> *Eunsol: i made the balloon fly too.*
>
> *Eunsol: actually it disappeared~ (1-2-precise information exchange)*
>
> *Subin: i wonder why it disappeared*
>
> *Eunsol: me too~*
>
> *Subin: so we should find the reason (precise idea asking)*
>
> *Eunsol: NOW??? (having difficulty)*
>
> *Subin: yes~ let's start (encouraging)*
>
> *Eunsol: BUT time is over... Let's don't do that kk It is so hard~ (3-5- having difficulty and encouraging but giving up)*

The students already knew that balloons burst at high altitude. Thus, it was thought that they avoided discussing the reasons by conversing in relatively simple expressions such as "we have heard our science teacher" or "I experienced."

> *The researcher: Eunsol, you rarely talked about the science work in comparison to other ones. Even, a result has not been submitted.*
>
> *The student: It is ridiculous. You have required too much work found impossible.*
>
> *The researcher: Why not? You have known all about it. Isn't it the simple reason that the pressure decreases when the balloon goes up and the increasing bulk causes the balloon to burst?*
>
> *The student: I don't know. It was really really hard.*

This interview excerpt shows that students found it very difficult to express the content of the quest in English, even though they were familiar with the material. While they could have conversations on personal experience despite unfamiliarity, they refused to converse about the scientific content.

i)   3.1.6 Findings from Case A

It should be noted that reflection and modification were an important part of this study. During the implementation of the questions, careful reflection occurred and necessary modifications were made to the subsequent quests. In correlation to the content of the quests, learners' collaborative English communication showed differences regarding amount of discussion, communication pattern, and knowledge construction.
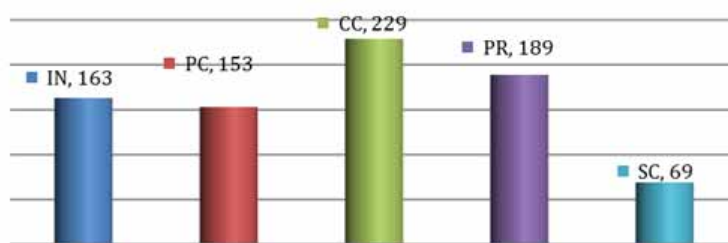

Figure 3. Comparison of communication for action according to middle school students' quests

The general quantity of the CfA generated by students in this curriculum design is indicated in Figure 3. The quests with the largest participants, CC and PR, took a culturally relevant approach and provided a procedure to bridge the gap between a familiar culture and an unfamiliar one. Students generated more active conversations while guessing about unfamiliar cultural content based on what they were accustomed to. They found meaning in new conversational topics by filling in the gaps, rather than by simply regurgitating familiar ones through a one-sided process.
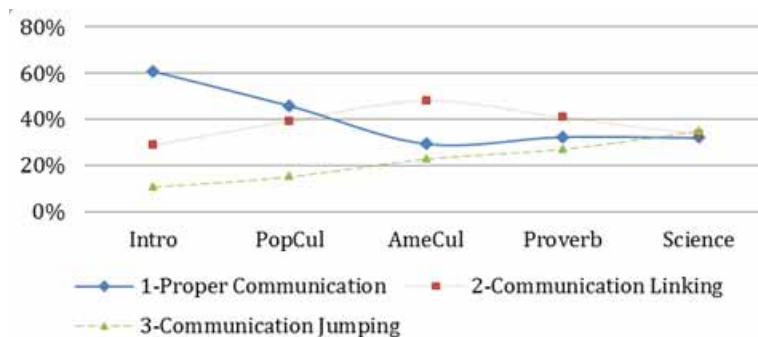
Figure 4. Comparison of communication patterns in middle school students' quests

The patterns of conversation were categorized by quest. The IN Quest engaged students, as students delivered their own information precisely and understood their partners. This process showed standard patterns in conversation and resulted in the most accurate communication. In the PC Quest, information delivery and idea exchange were the most frequent patterns of communication. The students generated a number of new expressions when providing examples. Despite some incorrect sentences, expressions were understood because of commonly shared cultural knowledge, which led to further conversation. When making comparisons in the CC Quest, different ideas were suggested, resulting in a sharp drop in proper communication. The students used unfamiliar expressions in the process of exchanging opinions.

This result was similar to that of the ID Quest; however, both of these tasks could not bring about an active discussion level, resulting in communication jumping or failure. The SC Quest led to the least amount of communication. Even though detailed and experiential opinions about scientific facts were expressed, it was almost impossible for the students to present them as scientific knowledge.

3.2 Case Study B: Indam High School

Three of the five quests were implemented in Case Study B: the PC, CC, and SC Quests. These quests were chosen because they each yielded active communication in the previous case study, and they included both culturally relevant and non-culturally relevant concepts, which emerged as an important issue in Case Study A. The two case studies yielded similar results, yet the high school case generated some additional findings.

j)   3.2.1 Pop Culture Quest

The amount of conversation generated through the PC Quest was approximately 30% of the whole conversation and yielded a great deal of communication. The most frequent patterns were proper communication with 87 instances (38%) and communication linking with 96 instances (42%). Students were able to explain reasons for their choices and consider societal effects with very little difficulty. The conversation also naturally flowed as students asked about their counterparts' opinions and made arguments in response to one another, rather than simply requesting objective facts or offering didactic information. Whereas the middle school students exchanged information to the extent in which they favored a certain pop culture or their favorite singers, actors, or TV shows, the high school students discussed their preference for pop culture and its impact on society. That is, they engaged in the conversation that the quest aimed for and accumulated information in English in an advanced way.

As for stages of content knowledge through conversation, the students moved their conversations without any significant issues during the stages of information and idea exchange. However, when they turned to actual discussion, communication jumping occurred. While the students did not have difficulty presenting their opinions based on information exchange during English conversation, there was some failure to deliver opinions when it came to constructing an argument.

Even though students had hoped to meet NES who logged in to the virtual world and they recognized that there had been many chances to solve the quest in collaboration with them, they did not communicate with NES to solve the quest.

k)   3.2.2 Comparing Culture Quest

In the CC Quest, CfA accounted for approximately 50% of the conversation. Students tried to make precise expressions that were beyond their ability in 130 instances (40%) of communication linking and 71 instances (22%) of communication jumping.

The most interesting finding was that students voluntarily contacted other QA users to learn about the American culture. Many NES were also interested in learning about a different culture and actively joined in the information exchange. This led to continuous participation with NES and increased communication for action in the virtual environment. The following example shows how native and non-native speakers virtually interacted.

> *Jingdong (NNES): hey wombat.*
>
> *Jingdong: can you help us with a quest? (precise social utterance)*
>
> *wombat1 (NES): what quest? (proper answer)*
>
> *Jingdong: we are comparing Korean culture and other culture.*
>
> *Jingdong: So we need someone who can tell about other culture. (precise information utterance)(..ellipsis)*
>
> *Jingdong: where do you live? (precise information utterance)*
>
> *wombat1: austrailia (proper answer)*
>
> *Jongsoo: oh!! i`ve been there!!! (precise social utterance)*
>
> *Jingdong: what's so awful about school? (precise information utterance)*
>
> *wombat1: almost everything? (clarification request)*
>
> *Jingdong: erm.... do you go to school early? (precise information utterance)*
>
> *wombat1: no (proper answer)*
>
> *Jingdong: what time? (precise information utterance)*
>
> *wombat1: 9 (proper answer)*
>
> *Jingdong: wow*
>
> *Jingdong: what time does school end? (precise information utterance)*
>
> *wombat1: 3 (proper answer)*
>
> *Jingdong: the school i go to,...*
>
> *Jingdong: we start class at 8:20 and ends at 4 (self-correction)*
>
> *wombat1: wow!!!*
>
> *Jingdong: it's nothing great*

Table 7. Comparative activity analysis for high school students

Cases	Formal Activities	Mixed Activities	Informal Activities
High School	62%	28%	10%

This phenomenon was analyzed intensely, and learners' collaborative activities were divided into three categories: formal activities, mixed activities—which took place unintentionally through the formal virtual education program, and informal activities—which were not related to the allotted tasks and took the form of free conversation from students logged in to the virtual world. As shown in Table 7, most of the mixed activities occurred in the CC quest, and the quantity of communication shown for one topic was far more than those in informal activities that were allotted more time. Since the students who tried to communicate with NES during the mixed activities had their own reasons and topics for the conversations, different conversations occurred than those that arose from the purely informal activities. Indeed, the analysis of the conversation patterns with NES in informal activities showed that the communication was focused more on delivering factual information than on

exchanging opinions; nevertheless, through the mixed activities, students tried to seriously discuss cultural differences. Still, the stage of constructing knowledge was mostly acquired through chatting with classmates in formal language.

l)   3.2.3 Science Quest

The quest resulted in the least conversation, showing same results as in Case A. However, while middle school students could not communicate at all, high school students were able to hold a conversation. Although the analysis showed that the communication patterns were similar to those of other quests (see Figure 5), it was concluded that the high school students were able to discuss the scientific rule and express themselves.
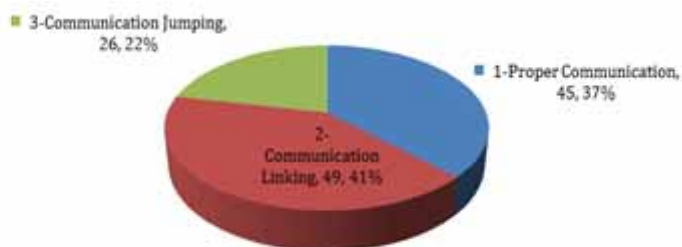
Figure 5. Communication patterns of SC Quest for high school students

Translating science vocabulary from Korean to English was not an obstacle. The students were accustomed to using a computer and found answers using an internet dictionary. Information exchange was the main knowledge accumulation step, and there was rarely an argument during the idea exchange.

The communication patterns were similar to other quests, and the reason for less conversation was that the topic did not trigger extensions. Students only focused on giving the correct answer. The conversation developed without discussing experiences, ideas, or values.

It can be argued that for the high school students discussing scientific topics in English was not impossible. Yet, it was challenging for students to build rich communication in a context that did not have a close relationship to their daily life. Cultural context becomes a triggers for conversation and leads to more, whereas scientific topics presented in isolation from culture did not prompt plentiful communication in terms of stimulating excitement and developing ideas. Thus, cultural relevance is key.

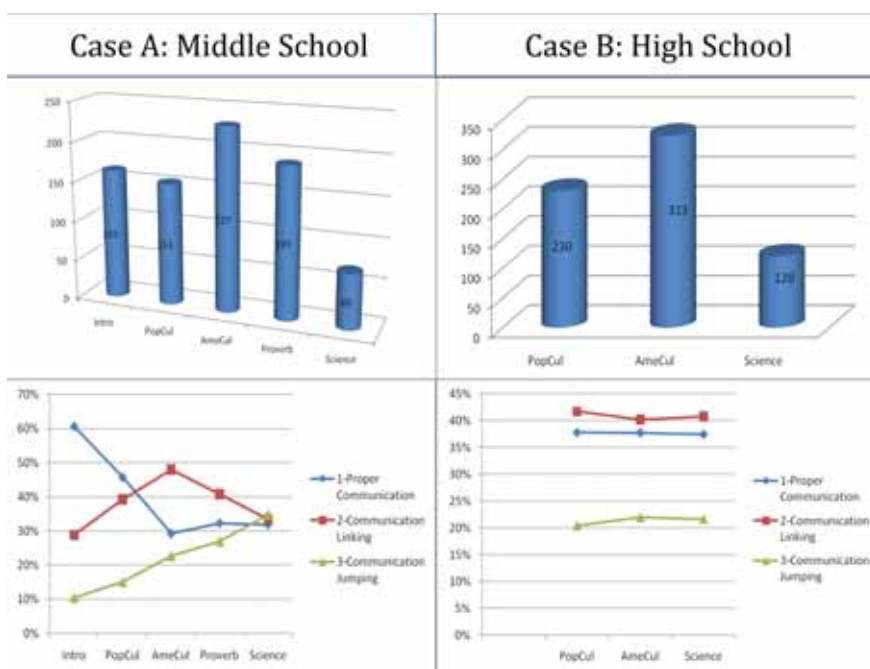*3.3 Findings from Cross Case Analysis*

Figure 6. Quantity (CfA) according to quests and analysis of communication patterns

Collaborative language learning in QA encouraged natural language learning by stimulating students to use English in context through activity quests. This process was different from regular English classes because language was not directly taught—students used English with others to simultaneously express their opinions, accumulate new knowledge, and fix usage errors. Since this process of language acquisition focused on meaning and not form, the content of the tasks had a great effect on the quantity and quality of the conversation. The quantity and patterns of communication that were discovered is shown in Figure 6.

As for the quantity of communication, shown in the bar graphs in Figure 6, the communication of culturally relevant content yielded far more conversation than the value-neutral science task for both cases. In particular, the most conversation occurred in the CC task, which required the students to overcome cultural gaps in the virtual world. Nevertheless, the comparing processes were different in the two cases. The middle school students identified, recalled, and compared the functions and meanings of culture, while the high school students sought support from NES in the virtual world. The unfamiliar information, the American culture, became a trigger for them to seek NES to acquire the information, exchange ideas, and engage in discussion.

In terms of quality of conversation, gaps were found between the cases, shown in the line graphs in Figure 6. While high school students maintained a consistent pattern of conversation, middle school students' conversation patterns varied depending on the quests. Middle school students reacted sensitively to the content of the quests; whereas the high school students' communication depended on the content rather than the level of difficulty. Furthermore, the scientific content should have been presented in ways that were culturally relevant and not isolated from the notion of culture. One student made the following remarks:

"The conversation about the science topic seemed like an answer seeking. While the comparing culture quest helped me to share and develop ideas through many talks with counterparts, the science one had the fixed answer. The reason was not important during idea exchange, wasn't it? It was alright to explain it in the theory, which had no necessity of communication. It was so boring and strict."

From the comparison analysis, it was found that all of the students generated a higher level and a higher quality of English conversation during the culturally relevant quests.

The middle school students, who had different communication patterns according to the content and who needed better English skills to survive in the virtual world, found the culturally relevant comparison task helpful in communicating. It also helped to promote conversation with the high school students. The fact that the information gap between the different cultures provided the students with opportunities to approach NES in the virtual world suggests a point for further research. Additionally, a clear next step in this field is to design culturally relevant quests in academic content. This will hopefully yield conversations about science content that are rich in terms of both quantity and quality. Being that virtual worlds are environments where diverse cultural groups coexist, culturally relevant curriculum design proposes not only language learning but also the necessity of interdisciplinary research.

4 Conclusion

Miller and her colleagues argue that for active collaborative learning, it is important not to relinquish structure along with control to avoid learner frustration (Miller et al., 1996). In a traditional class, because teachers maintain control of the procedures, it is comparatively easier for the instructor to regulate learners' activity. However, in a collaborative learning situation, especially in a virtual environment where agents can encounter unexpected situations, it is important to design structured activities so that learners can take control of their own learning and negotiate meaning in ways that are genuinely collaborative. The practical recommendation for how an instructor can use a virtual environment is not to simply offer an English-immersed setting but to structure it in a nuanced and culturally relevant way. Previous studies argue that the most critical elements in constructing collaborative learning situations are designing an appropriate learning task so that students actively engage in the task (e.g., Barkley et al., 2005). In the SLA field, task-based learning theorists also support this point.

If the primary purpose for introducing a virtual world for English education is to promote student interactivity, the educational content used for this purpose must be carefully conceptualized in terms of culture. This allows students to produce conversation beyond their ability, enabling them to fully express their ideas. Since this study showed that students are able to understand one another even when they produce statements that are not be entirely accurate, they should be given opportunities to discuss complex topics in ways that increase the quantity of their output and the depth of their discussion, regardless of errors in syntax and vocabulary. This may be accomplished by way of culturally relevant content tasks. When task-based learning is combined with culturally relevant activities, the virtual environment becomes a place of teaching and learning.

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Teaching Conflict Resolution through General Education at University: Preparing Students to Prevent or Resolve Conflicts in a Pluralistic Society

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Abstract

This research stems from an appreciation of ethnic diversity among university students, and the awareness that differences can result in verbal or physical conflicts. University lecturers have an important role to play in helping prevent and resolve student conflicts. Hence, they are required to create a climate conducive to teaching and learning, where what is taught has meaning in the student's life. In the present research, we focused on "Civic Education"- a course meant to create awareness among students on the importance of nationalism, national identity and peaciful living within society from the Indonesian perspective. To establish how university education can help to develop students into good conflict managers and to understand how they can solve disputes arising from the differences in opinion, this research was carried out in two stages: the first stage involved preliminary information gathering with a view to designing a model for teaching conflict resolution. While the second stage was the implementation phase of the conflict resolution teaching model. The model entailed discussions, practical problem solving skills, and role-playing. The activities carried out comprised of reviewing the literature and course syllabus, collecting information, administering questionnaires, carrying out interviews and finally formulating the model. The interviews were conducted at the campuses of universities prone to conflicts. The researchers employed a qualitative research approach, with the help of a case study method. Data collection techniques comprised of questionnaires, interviews, observations, and document analysis. The findings revealed that: 1) Lecturers lack knowledge and skills concerning conflict resolution and prevention among students; and 2) It was established that the implementation of the conflict resolution model has not been effective among students. Because they do not understand the stages involved in a peaceful conflict resolution or prevention process.

Keywords: conflict resolution, diversity, higher education, Indonesia, social harmony

1. Introduction

Indonesia is a pluralistic nation with great diversity in its ethnicity, culture, traditions, language, and religion. There are an estimated 250 ethnic groups in the country and its people subscribe to a wide variety of religions. The national motto unity in diversity *(Bhinneka Tunggal Ika)* has long united the people of Indonesia in their diversity. However, inevitably in the course of history, social conflicts have arisen, many of which have been destructive and created great misery for many people. When social conflicts cannot be resolved through constructive mechanisms, destructive conflict may arise. Knowing how to resolve conflict in peaceful and constructive ways is an extremely valuable skill for individuals and societies.

College or university serves as a social system that should have a favorable climate for promoting conducive teaching–learning. Observation of the current climate in universities suggests that it is not always peaceful and safe, and conflicts often arise. These may take various forms, e.g., horizontal and/or vertical conflicts. A university should be an agent of change for conflict resolution in society. Instead, it appears that many universities in Indonesia have become a fighting arena in which conflicts thrive.

One of the decrees of the Indonesian Directorate of Higher Education Numbered, No.43/DIKTI/Kep/2006 sets guidelines for implementing higher education courses and one of the conditions is to implement a conflict resolution teaching model. In relation to this, courses can be categorized into three groups: (1) General courses; (2) A group of courses focusing on character development, including Civic Education, Religious Education, and Indonesian language, and (3) Specialization courses. This research aimed to investigate current models for conflict resolution in a university setting; ethnic/cultural background differences that might result in conflicts in this setting; the understanding of general course lecturers concerning conflict resolution; and, the knowledge and skills of lecturers concerning conflict prevention and resolution. Based on these findings we aimed to develop a conflict resolution model that would be implemented in general education in the second year.

2. Literature Review

2.1 Conflict Resolution

Conflict, in a work setting, may refer to a disagreement between two people/parties that upsets productivity, efficiency, and products (Wall & Callister, 1995). In daily social interaction, conflict is considered as a disagreement between two people/parties that upsets routine social interaction (Volmer and Binnewies, Sonnentag, and Niessen, 2012). Key theories concerning the source of conflict include:

- Theory of social relation by Somerville (2000): The theory sets out a new approach to understanding society. It also argues that conflict is caused by continuous polarization, mistrust and enemity between different groups in society (Znaniecki, 1965) Theory of human needs by Maslow (1943): The root of conflict is unsatisfied or delayed basic human needs (physical, mental, and social). Common topics concerning these needs are security, identity, acknowledgement, participation, and autonomy (Wahba, & Bridwell, 1976).

- Theory of principled negotiation by Tenbergen (2001): Conflict is caused by disharmonious positions and differences of opinion concerning the conflict matter.

- Theory of identity by Schlee (2004): In his analysis, it can be concluded that the theory of identity assumes that conflicts stem from threatened identity, often rooted in the loss of a particular aspect or item, or unresolved suffering in the past.

- Theory of inter-cultural misunderstanding interpretation from Saee (2004)'s writing on cross-cultural conflicts: Conflict is caused by incompatibility or dissimilarity in communication of different cultures. Theory of conflict transformation in the perspective of Lederach (1995): It is interpreted that conflicts are caused by inequality and unfairness which manifest as social, cultural, and economic problems.

The phenomenon of violence in universities could be considered as 'the tip of the ice-berg'. The physical, group violence sometimes observed in university settings hints at the bigger problems of society hidden beneath the surface. According to Galtung (Sutanto, 2005, p. 16), conflict is a definite cause of violence, because every form of violence was underpinned by an unresolved conflict. He illustrated this by suggesting that violence is the smoke and conflict is the fire. Galtung further suggested that if conflict manifests in individuals and society as a pathology, a collective psychosis will emerge and ultimately rationality will have no effect. When this happens, polarization will occur and violence can break out (Sutanto, 2005, p. 26). Conflict is seen as the struggle between good and evil, black and white, winning and losing, profit and loss.

Kai Fitthjof and Brand Jacobsen (Sutanto, 2005, p. 35) note that conflict occurs at a range of levels: in an individual, among individuals, in and among societies, nations, and cultures. It is natural, embedded in every activity of social life and impossible to eradicate (Syaifullah, 2006). Although conflict is inevitable and experienced by everyone, not all people have the skill and attitude necessary to positively resolve it. People tend to use a limited set of strategies when faced with a conflict: giving in and accepting the situation humbly; running away from the problem; retaliating with greater power and violence; or resorting to a court of law for legal judgment. These ways have been shown to be ineffective and typically make someone a victim in the process. Even at schools, traditional methods of conflict resolution were punishment-based. According to Johnson and Johnson (1995:35), many researchers believe that punishment-based resolution will not positively solve inter-personal conflict between students and will not result in positive behaviors.

Ineffective ways to manage conflict usually stem from one's opinion concerning conflict. It has been suggested that management of conflict is vital, since prevention of conflict in society may be challenging. Deutsch (1973:12) suggested that rather than debating whether conflict is good or bad, the most important consideration is to handle conflict so that a constructive outcome emerges. Conflict need not always be destructive. Whether or not a conflict is constructive depends on the understanding, skills, and competencies of individuals managing

conflict, at both intra- and inter-personal levels .Imam B. Prasojo (Lidyasari & Rolina, 2013) emphasized that: "Conflict can not be avoided; but it can be managed, the potential of the conflict can be transformed. However, poor management can turn it into open conflict. A conflict is just like a football game among children; it is organized just like a game. However, it should also be noted that an unorganized conflict can also turn into an open conflict." Thus, conflicts traditionally viewed in a negative light, have the potential to be organized in a way that could make them constructive.

There are two crucial aspects required for conflict prevention and resolution. First, conflict management capacity is needed, including adequate skill and knowledge of conflict resolution and prevention. Second, critical awareness of the society and government concerning conflict resolution and prevention is required. Social institutions, both civil and public (government), typically lack these requirements, even though they are a pre-requisite for creating peace. Preventing violence that arises through conflict, by means of educational programs is also important, according to research from the Carnegie Commission on deadly conflict prevention. The commission found that: (1) various forms of conflict could be prevented; (2) the need for conflict prevention was urgent; and (3) conflict prevention has a high chance of success. However, a problem frequently found in conflict prevention is that conflict occurs in the absence of any cultural, educational, and pedagogic prevention. There is a conflict-solving movement called Alternative Dispute Resolution (ADR) aimed at facilitating cultural, educational and pedagogic interventions. Using this type of conflict resolution as an educational program has important long term value because students are the future drivers of the social structure, and should maintain a culture of peace and anti-violence (Suyanto, 2005).

Schools have considered that conflict resolution skills are urgently required for their students. In a discussion of the role of counselors in the 21st century, it was stated that one of the urgent themes of future counseling is 'conflict resolution counseling.' Johnson and Johnson (1996) suggested, "Most students do not know how to manage their conflict constructively." Meanwhile, the Centers for Disease Control and Prevention noted that violence had reached an 'epidemic' proportion, and that every student should be involved in a conflict resolution program. American Counseling Association established a comprehensive conflict Resolution Program to promote a safe school environment that permits optimal personal growth and learning. Through this program, it is believed that to handle conflicts in a school or university, a more manageable approach to developing a comprehensive conflict resolution is required (Garner, 2008).

There are various conflict resolution programs available, developed under various names like Conflict Resolution Education, Peace Education, Peacemaking, Violence Prevention, and Violence Reduction. According to Crawford and Bodine (1996), some of the conflict resolution programs developed at schools include: conflict resolution training, peer mediation programs, peaceable classrooms and schools, and community mediation centers. All these programs provide students with the opportunity to understand the importance of: (1) realizing that conflict is a natural reality of life that can be resolved peacefully; (2) developing awareness of one's responses toward conflict and of others' responses towards conflict; (3) learning and practicing conflict resolution principles and skills to reach a peaceful conclusion; and (4) empowering one's self individually and cooperatively to be responsible for peaceful conflict resolution and apply it in daily life.

2.2 Conflict Interaction Patterns

According to Wijono (Irianto, 2011, p. 20) the characteristics of conflict are: 1) There are at least two parties (individuals or groups), involved in a conflicting interaction; 2) There is a controversy or opposing view between at least two parties in their pursuit of goals and playing of roles; or there are conflicting values or norms; 3) The interaction is characterized by behavioral symptoms designed to nullify each other, to diminish and suppress the other party to gain benefits (e.g., status, position, responsibilities, fulfillment of various physical needs including clothes, food, and wealth, or benefits such as cars, houses, or money); and, fulfillment of socio-psychological needs (e.g., sense of security, confidence, love, acknowledgement, and self-actualization); 4) Confronting actions arise as a result of unresolved conflict; and 5) Disequilibrium occurs as a result of each party's effort to gain position, social status, authority, power, self-esteem, and achievement.

The theory of conflict according to Dahrendorf (1959), and Coser (1956) was founded on social fact paradigm, i.e., the structural functional theory and the more moderate conflict theory. These two theories are both holistic, and see society as a whole unit consisting of interrelated parts. Another similarity between the two theories is that both tend to focus on the variables emphasized by other theories. The point is that conflict could contribute to integration and, in contrast, integration could also give birth to conflict.

Conflict can be divided into two types: personal (individual) and interpersonal (inter-individual) conflict. Pickering (Priliantini, 2008, p. 27) described these two types of conflict in further detail. Personal conflict is an

internal emotional turmoil, e.g., when an individual is required to finish a job or to meet certain expectations, but his/her experience, interest, goals, and values are insufficient to satisfy the demand. Interpersonal conflict occurs between two individuals, and occurs in every society. It cannot be obliterated, but can be managed to yield constructive changes. As Cuff (Irianto, 2011, p. 23) noted, no matter how sharp a conflict is, there can still be a subjective awareness that prevails and ensures it does not destroy the existing relationship. Blau (1967:15) stated that a social structure is a quantitative spread of community members in different, but interrelated, social positions.

2.3 The Concept of Conflict Management

Conflict resolution is a process of analyzing and solving problems by considering individual and group needs, e.g., identity and acknowledgement, and institutional changes necessary to satisfy the needs. Ross (1997) stated that conflict management refers to steps taken by the actors or a third party to direct the disagreement towards a certain result that might produce a final result of conflict resolution, and might create positive, creative, agreeable, or aggressive peace. Fisher (2001:7) used the term of conflict transformation to illustrate the situation, using such descriptions: 1) Conflict prevention is aimed at preventing the emergence of hard conflict; 2) Conflict solving desires to end violence through peaceful agreement; 3) Conflict management strives to restrict and prevent violence by urging positive behavioral changes of the involved parties; 4) Conflict resolution aims to handle the sources of conflict and build new lasting relationships between all parties; and 5) Conflict transformation aims to solve the source of wider social and political conflict and to change the negative force of war into a positive social and political force.

2.4 Ethnicity and Culture

Ethnicity is not a new issue in the national life of countries around the world. Isiksal (2002) noted "the ethnic root of nationalism fell into the agenda of international relations theory, particularly since the 1970s, when resurgence of ethnic nationalism has been witnessed in many parts of the world." This shows that ethnicity has been a consistent issue in the history of many nations. Isiksal added, "today, it is widely acknowledged that ethnicity plays a crucial role in nationalism." This is the case in Indonesia, where "the historical experience of Indonesia concerning nationalism, particularly those related to ethnicity, was very complex" (Azra, 2006, p. 7). The complexity was not only caused by the different historical experiences in the course of nationalism development, it also arose because of Indonesia's highly pluralistic society. The ethnographic map of Indonesia is very complex. Indonesia is inhabited by large numbers of ethnic groups that, in spite of their physical-biological similarities, demonstrate substantial cultural and linguistic differences.

The concept of ethnicity derives from the Ancient Greek 'etnos'. In Ancient Greek, etnos was defined as a group of people that had similar cultural and biological characteristics and acted in a similar pattern. From this, other definitions like ethnic community or ethnic group emerged, although to date this definition has failed to provide a complete and comprehensive definition of ethnic group (Tilaar, 2007, p. 4).

Handleman (in Tilaar, 2007, p. 12) distinguished four stages of development in human cultural communities: 1) Ethnic category: one's interrelationship with society is a loose bond that serves to illustrate that there are cultural differences between one's group and the outside world; 2) Ethnic network: an organized interaction among the members of an ethnic group so that within the network, members can exchange resources; 3) Ethnic association: members developed similar interests and formed political organizations in collective statements; and 4) Ethnic society: the society had a fixed territory and was bound to its political organization, such as nation-state. In this level various (diverse) ethnicities grouped together.

2.5 Understanding Cultural Differences

Moran (cited by Mulyana, 1998, p. 57) is of the view: "Humans were born in generations with a genetic map, and the cultural genetic maps of the generations before us influenced each other. As our geo-physical environment affected us, the social institutions of home, school, and government provided a cultural context that affected our behaviors."

Because culture shapes the identity of a group of people, we can identify the cultural aspects that make one group of people different from other groups. One of the ways to do this is by investigating the group and its aspects, including: 1) communication and language; 2) appreciation and acknowledgment; 3) relationships; and 4) values and norms. Further, the anthropologist, Brown (also cited in Mulyana, 1998, p. 61) suggests: "People of different cultures felt happy, interest, worried, or ashamed of different things, because they perceived situations based on different premises. The learned culture and tradition demanded honesty from its member but was more flexible towards others."

A culture contains a system of goals and values (Soekanto, 1975, p. 21). With values, the beliefs of people in a certain cultural environment concerning what was right, appropriate, and good were determined. The system of values was an important factor, because it was the factor that determined all behaviors of an individual. Koentjoroningrat (1980:190) provided the following definition of cultural values: "… a concept of what was in the mind of most members of a certain society concerning what they considered valuable, significant, and important in life; which could serve as a guidance that provide aim and orientation of life for the members of that society."

The cultural values held by a society take root in an individual for a long time and are reflected through actions and behaviors. These values influence the behaviors of an individual and a societal group. Human behavior is a product of socio-cultural heritage, not a product of biological factors shared by parents to children. Socio-cultural environment is a factor that determines the attitude and behavior of an individual, based on cultural habit and belief. Witherington (Buchori, 1983, p. 140) explained that: "Habit was a uniformed way of acting or behaving, obtained through repeated learning, which in the end became fixed and automatic. Habitual behavior did not need concentration and focus to be performed."

Habit is not something people are born with and it does not happen in an instant. Habits are formed over time. One of the learning theories that emphasized the importance of habituation is the 'stimulus-response' theory. A response is strengthened if it is accompanied by feelings of happiness or satisfaction, which would make the individual repeat the action. Habit could be formed through practice, repetition, and learning (Natawidjaja, 1977, p. 20).

2.6 The Role of Intercultural People

To shape intercultural people at a national level, the following efforts are required: 1) The use of national language in formal forums, such as in educational institutions, governmental/public and private offices; 2) Fair representation of culture (art) through electronic media, particularly television; 3) Fair socialization in educational institutions, and public and private offices; 4) Inter-ethnic contact through students, employee, and youth exchange; 5) Inter-ethnic marriages; and 6) Evenly-distributed development by the government. These efforts cannot occur in isolation. All parties need to cooperate together. However, each individual should be given the freedom to do whatever they need to do to achieve this goal.

2.7 Ethnic Identity Changes

There are two approaches concerning ethnic identity. The first is an objective approach (structural), and the second is subjective (phenomenology). The objective perspective sees an ethnic group as being distinguishable from other groups based on cultural characteristics like language, religion, or nationality. The subjective approach formulated ethnicity as a process in which people experienced or felt themselves as a part of an ethnic group, and are identified in this way by other people. This perspective focuses its attention on the bond and sense of ownership perceived by the observed group.

2.8 Indonesia in 'Bhinneka Tunggal Ika'

Indonesia illustrates a complex, plural, and heterogeneous culture through the principle of *Bhinneka Tunggal Ika* (unity in diversity). This means that the country showcases various ways of living, but each of these different ways is integrated into a united nation (Kusumohamidjojo, 2000, p. 45). According to Geertz (in Hardiman, 2002, p. 4), this nation was not only multi-ethnic, but also a battle field of multi-mental influences. Indonesia was a nation with diverse values and characters measures; unified by a great narration of historical, ideological, and religious nature, and was combined into a shared economy and political structure.

It should be considered a blessing if the diversity moved Indonesians together towards a united country, without diminishing the character and identity of each group. However, if the diversity moves without direction—not towards a united Indonesia—because each group emphasizes their own identity (communitarian culture) at the expense of others, problems will occur. Based on the ethnic diversity, Kusumohamidjojo (2000:20) further distinguished the ethnographic dimension of the country by categorizing it into four sub-dimensions: 1) society, 2) culture, 3) phenomenon of plurality and heterogeneity, and 4) dynamic sub-dimension of society and its culture.

3. Methodology

This study followed a qualitative approach using the case study method (Faisal, 2008, p. 22) to detail the unique background, nature, and characters of a case, which could then be generalized (Nazir, 2007, p. 65). The data collection techniques included literature review, questionnaire administration, interviews, and analysis of documents. Data analysis followed the steps suggested by Miles and Huberman (2007, p. 20), and consisted of

three simultaneous activities: data reduction, data display, and conclusion drawing/verification. The research sites were Universitas Hasanudin Makassar, Universitas Muhammadiyah Makassar, Universitas Kristen Indonesia (UKI) Jakarta, and Universitas Persada Indonesia (UPI YAI) Jakarta. All were chosen through purposive sampling.

4. Results and Discussion

Conflict is, and has always been, present in life, whether socially or in academic life at a university. When a conflict arises, it cannot be ignored because it will create anxiety and disharmony in social life. University should be a comfortable place to learn. Violence occurring in a university indicates that conflict had begun to creep into the academic society. A conflict resolution and prevention model is needed to realize a harmonious university setting.

The interview and data processing from the questionnaire showed that there was teaching and learning of a conflict resolution model in the general courses at the universities. The conflict resolution model was developed through classroom learning via discussion, problem solving, and role playing. Learning took place by providing opportunities for the students to analyze a problem in their personal or social life in a small group forum. This enabled students to improve their skills in perceiving conflict and in finding the sources of conflict. After the discussion, they were asked to role play as persons in conflict. Students played the roles of negotiator, mediator, and arbitrator. Dugan (Maftuh, 2008, p. 48), noted that negotiation, mediation, and arbitration are non-violent strategies for solving conflict. Through role-playing, the students were engaged in learning to solve personal problems, with support from the social group of their own peers. Role-playing encouraged students to explore problems by acting them out. The model was designed to equip students to face conflict and resolve it peacefully, so that a harmonious learning environment could be created.

Ethnic/cultural background differences of students can spark conflict in a tertiary education setting. Our society is multi-cultural, with people from different ethnic backgrounds joined together in one social life. Drijarkara (Sumatmadja, 1998, p. 16) stated: "Human beings are dynamic. This dynamic never stopped and was always active. Human dynamics connect a person with other people and with his surroundings. This dynamic would keep growing and developing through his life."

Without solidarity among people, each individual will become egotistical. Ethnic and cultural differences among the university students often create conflict, but should be used as an opportunity to learn about others' culture and ethnicity. People may forget that they were born with physical and mental differences ensuring that they will always need help from others. Unwillingness to help others resulted in the forming of social classes (Al-Munawir, 1984, p. 40).

In a multi-ethnic society, respect for each other is vital to avoid conflict. However, ethnic fanaticism, which can create conflict, is inherent and omnipresent in a multi-ethnic society. The ethnic and cultural diversity of Indonesia should not be a divisive factor; rather it should be seen as an enhancement for social interaction in society. Diversity is a gift that should be respected, acknowledged, and valued. The most important thing for us is the willingness to understand, respect, acknowledge, and accept the diversity of our society. Understanding other cultures does not mean we need to implement their ways in our own life. It implies we should respect others and try to live harmoniously with them, united in diversity.

4.1 Understanding of General Course Lecturers Regarding the Conflict Resolution Model

Facilitating students' learning about conflict resolution required knowledge and skills linked to conflict understanding, on the part of the lecturers. The results of the field study showed that their understanding was inadequate. As the university is a place where conflict can arise from students' cultural differences, each lecturer is an important figure in determining new concepts of learning. These included learning concepts concerning all problems facing the students, e.g., mass fights among students. As members of academic society, students should be able to exemplify good behavior for broader society. However, violence also happens at university. The students' social life no longer reflects the moral values of society. The lack of solidarity and tolerance could turn students' disagreement into conflict.

Considering that universities are prone to conflict, a learning concept that could be used to solve student conflict was necessary. The development of a conflict resolution model should begin with the lecturer's understanding of the conflicts among the students. Appropriate understanding of conflict would be the foundation to determine the appropriate concept for conflict resolution model learning. The conflicts in universities should be analyzed to find their sources. Galtung (Sutanto, 2005, p. 16) noted that conflict was a sure cause of violence, because in every instance of violence lay an unresolved conflict.

4.2 Lecturers' Knowledge and Skill of Conflict Prevention and Resolution in University

Based on the interviews and data processing, it was found that the lecturers' knowledge and skills concerning conflict prevention and resolution was inadequate. Conflicts happening in university were resolved through sanctions, as regulated by the university. However, these regulations did not provide a way to prevent future conflict. Lecturers' knowledge concerning conflict prevention and resolution is essential to create a safe and comfortable atmosphere. Conflict prevention could be promoted by creating an atmosphere of respect for all students. As noted by Tilaar (2004, p. 94), a multi-cultural society requires an ability to live together in a society full of tolerance and intercultural understanding to build a new harmonious world. Understanding does not mean merely tolerating. Understanding involves critical responses from external sources (parties) to participate in providing support, reasons, acknowledgement, appreciation, knowledge, and empathy in living together as part of an integrated nation.

4.3 Conflict Resolution Model Implemented in General Courses (MKPK and MBB)

A conflict resolution model should be taught through discussion, problem solving, and role-playing. The analysis of social problems or violence could be delivered through such a process. In the general courses, the analysis of social problems could be delivered through the Civic Education subject.

Based on the interviews carried out and our data analysis, learning about a conflict resolution model did not take place in general courses. The university used sanctions to punish students that broke university regulations, instead of focusing on future conflict prevention. A more constructive learning process could be implemented using the methods of discussion, problem solving, and role playing. These teaching and learning methods may be the first step in an effort to prevent and resolve conflict among university students. Role playing is a form of educational play used to explain feelings, attitude, behavior, and values with the goal of understanding others' feelings, points of view, and ways of thinking (Depdikbud, 1999, p. 171).

The steps for implementing discussion, problem solving, and role-playing activities were as follows.

The first step:

- Lecturer/students decided on the topic of the problem.
- Students formed groups to discuss the problem.
- Students investigated the topic to analyze the source of the conflict and find the problem.
- Students created problem solving concepts through role playing.

The second step:

- Lecturer asked two or more students to come to the front of the class and role play as conflicting persons.
- Lecturer appointed three other students to be negotiator, mediator, and arbitrator.
- Students analyzed the deficiencies and advantages of the conflict resolution.

The third step:

- Students were asked to provide feedback concerning the difficulties of the conflict resolution.
- Lecturer and students drew conclusions about the process.

These steps could be further developed as necessary. The conflict resolution model aims, at least, to create a more conducive atmosphere for learning. The conflict resolution model implemented in the classroom could also be the source of knowledge and skills for the students to solve conflict outside the classroom.

5. Conclusion

The observations, interviews, document study and analysis of relevant theories, led to the following conclusions:

A model for developing conflict resolution in general courses is necessary because conflicts are prevalent in academic societies.

A lecturer understands knowledge and skills concerning conflict resolution are the foundation to develop the conflict resolution learning model.

Implementing the conflict resolution model in general courses through the Civic Education subject was appropriate because the materials of the subject were directly related to social life.

Focusing on moral and religious values in the university environment could produce a harmonious climate in which everyone would respect each other's cultural differences.

Conflict prevention among university students should stem from the creation of an academic culture that upholds ethical values and obey the norms and rules of the university.

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