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The Impact of Intellectual Capital on Job Performance based on Faculty Members' Perceptions at Universities

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Abstract

Intellectual capital considers intangible efforts that complete each other. The conversion of efforts and knowledge into valuable assets has come to be known as intellectual capital. This study aims to examine the impact of intellectual capital on the job performance of faculty members at universities. The study used a cross-sectional design. The study population was the academic staff at Jordanian universities. The participants were chosen randomly from different faculties. The study relied on a quantitative method, and the tool for data collection was a questionnaire. The results found that the intellectual capital at universities was high, and the job performance of these universities was also high. In addition, the study found a highly positive impact of intellectual capital on job performance. This study discovers the impact of intellectual capital on the job performance of faculty members at universities. It also draws attention to the importance of intellectual capital in enhancing university performance. This study is useful for decision-makers at universities to maintain their performance and improve the higher-education system in Jordan.

Keywords: intellectual capital, job performance, faculty members, universities

1. Introduction

Intellectual capital is considered as the main source of innovation and creativity and it accounts for any organisation's success. In addition, it is the catalyst and initiator for the achievements and developments of organisations. This means that organisations must be willing to expend effort in order to attract and obtain intellectual capital and therefore the competitive advantage. Organisations are required to work hard to maintain and develop their services in a technique that differentiates them from other competitors to ensure their continuity and survival (Hussinki, Ritala, Vanhala & Kianto, 2017).

Intellectual capital has been defined as the hidden value that adds benefit to an organisation (Gupta, Massa, & Azzopardi, 2016). This is because the intellectual asset is invisible, and also does not appear in the financial statements. In addition, intellectual capital has a significant effect on employee performance, and as a result, it can affect organisational performance (Li, Song, Wang & Li, 2019) . Intellectual capital can lead to improved performance and can be used as an assessment instrument to create sustainable staff who will be able to meet the future needs of the organisation. Although intellectual capital enhances the quality of services and makes an organisation more competitive, unfortunately, some organisations ignore the importance of human resources because they are not aware that human resources are a component of intellectual capital (Gupta, Massa, & Azzopardi, 2016).

Many studies have emphasised that organisations need to be superior and creative in their ideas and services. Moreover, they want to provide effective and efficient solutions to address current and future issues in order to attain excellent results through intellectual capital (Obeidat, Tarhini, Masa'deh & Aqqad, 2017). Decision-makers in organisations need to be aware of business processes, gather accurate information to make correct and practical decisions, adopt or create new procedures and strategies, focus on intellectual capital to achieve successful job performance, develop a sustainable plan to maintain intangible resources, and achieve a

competitive market share.

Generally, in recent years, intangible assets have been considered a significant source of innovation and development for entities. Many international and national organisations have emphasised the significant role of intangible assets, including; the European Commission, The Organisation for Economic Co-operation and Development (OECD), the World Bank, BNDES in Brazil, and METI in Japan (Bounfour, 2018). According to the OECD (2013), knowledge-based capital accounts for 5% - 11 % of the Gross Domestic Product (GDP) in many countries, and shows a greater role in the growth of productivity than tangible capital.

Business investment in non-physical assets produces knowledge-based capital (KBC) such as data, software, research and development (R&D), new organisational processes, patents, specific designs, and skills. Several OECD countries and some non-OECD countries have increased their investment in KBC faster than other investments such as physical capital (equipment, machinery and buildings). Increasing the investment in KBC amplifies the significance of getting human capital policies right, because human capital is considered the basis of KBC. Research in the United States of America mentions that there is a deficit of many analysts and managers with a suitable understanding of the importance of data in business. Business investment in KBC seeks to better align programmers and curricula with the needs of the business. In many countries where educational attainment is already considered high, efforts to improve the quality of education are highly appreciated (Organisation for Economic Co-operation and Development, 2013).

According to popular belief, intellectual capital is associated with the concept of the intangible asset which is normally used by accountants, the knowledge asset concept which is used by economists, and the intellectual capital concept which is used by managers and leaders. However, all of these concepts refer to the intangible worth which is connected to an organisation's employees, customers, management, and other stakeholders. Intellectual capital includes the contents of employees' minds and also the compound intangible structure that surrounds them (Ariff, Islam, & Van, 2016). Intellectual capital considers intangible efforts that complete each other. The conversion of efforts and knowledge into a valuable asset has come to be known as intellectual capital. Todericiu and Serban (2015) emphasise that intellectual capital considers a group of knowledge assets that are credited to any company or organisation and most considerably support and improve the competitive place of the company or organisation through adding value to defined stakeholders.

Rehman, Chaudhary, Rehman and Zahid (2011) mention that intellectual capital is defined as everything in the organisation that contributes to giving it a competitive advantage. It could be split into a verity of domains such as human capital, intellectual assets, intellectual property, structural capital, and relational capital.

Job performance is an important matter for-profit or non-profit organisation. Even though job performance is an essential factor in business, it is a compound and complicated phenomenon, because it is affected by organisation manager efforts, heterogeneous market conditions, and time. Job performance is the ability of an organisation to meet its goals, customers' needs, and growth in a sustainable manner. An organisation's performance can be affected as a result of the variation of organisation resources including both intangible and tangible resources (Obeidat, Abdallah, Aqqad, Akhoershiedah & Maqableh, 2016). Consequently, enhancing job performance does not merely rely on the effective placement of tangible resources but also on intangible resources such as knowledge management and employee behaviour. In universities, job performance includes educational performance, behaviours at the university, scientific research, and community service. These components lead to achieving university goals and objectives.

It is required from Jordanian universities to maintain innovation rates and sustain links with the workplace, and continually improve human resources management. Therefore, universities are required to adopt intellectual capital approaches to improve job performance. Universities should measure their performance in improving the higher-education system. They need to continuously regenerate themselves through the intelligent use of knowledge management. Intellectual capital could create a large positive effect if universities use it in an appropriate manner because it offers better opportunities for universities to achieve their objectives. Therefore, this study aims to examine the impact of intellectual capital on the job performance of faculty members at Jordanian universities.

2. Literature Review

Organisations have started to focus on intellectual capital since the early 1980s because they have realised that it plays an essential role in maximising the organization's profit (F-Jardón & Martos, 2009). The intellectual capital concept comes from a study of the relationship between invisible assets and performance (Sherif & Elsayed, 2016).

The period of the eighties until the beginning of the nineties of the twentieth century is characterised by a group of opinions and proposals which focused on the importance and role of intangible assets in achieving corporate growth, increasing returns, and ensuring continuity, which directed attention towards human capabilities (innovation and creativity, and generating new ideas, products, and services) (Abu Zerr, 2020).

Marr, Gray and Neely (2003) provided five reasons for measuring intellectual capital. These reasons are: It helps organisations to adjust their strategies; it enables diversification and expansion decisions to be made; it helps to assess the implementation of strategies; it enables the identification of norms related to intellectual capital to stakeholders; and the results of intellectual capital measurement can be used as a basis for service compensation. Researchers have suggested many models in the context of classifying intellectual capital components, but there is no universal classification for intellectual capital components (Chahal & Bakshi, 2016, Sharabati, Jawad & Bontis, 2010, Pourkiani, Sheikhy & Daroneh, 2014). For example, Bontis (2001) initially referred to three components which were human, structural, and customer capital, and then modified the categories to relational capital, human capital, structural capital, and intellectual assets. Intangible goods are assets that can be maintained, merchandised, and represented appropriately, including; trademarks, copyright, and technical knowledge. Intangible competencies refer to distinct and separate issues of competitive advantage that differentiate an organisation from others. It includes structural competencies, innovation competencies, and human resources. Obeidat and his colleagues (2016) mentioned that intellectual capital includes three categories, which are structural capital, human capital, and relational capital.

Nikolaichuk, Arkhypenko and Matukova-Yaryha (2019) generalises the conditions and essence of company value estimates and proves the intellectual capital influence on its value, and the presentation of the subsystem of intellectual capital of the company and its components are substantiated. The algorithm of appraisal of the performance of the management subsystem on the grounds of a matrix model using cost aspects and structure is proposed. A study by Li et al., (2019) explored the relationship between knowledge sharing, intellectual capital, and innovation performance of construction enterprises and the mediating effect of knowledge sharing on the relationship between innovation performance and intellectual capital. Li et al. also mentioned that the era of the knowledge economy is driven by innovation, based on the input of intangible assets which play a crucial role in the long-term development of organisations. The product value of any enterprise is broadly determined by its intellectual capital. Thus, as the scientists of China's economy, construction enterprises must support their investments in intellectual capital, and evolve their competitiveness in the market.

Iazzolino, Migliano and Guarnaccia (2019) focused on a new methodology for assessing the market value of enterprises (Quantitative Intellectual Capital) that studies intellectual capital (IC) as a vital factor which influences the overall value. Velayutham and Rahman (2018) examined the relationship between academic employees and their salaries. The analyses performed pointed out a positive correlation between academic human capital and their salaries. Zeb, Abdullah and Javaid (2018) analysed the relationship between human capital management (which includes selection, recruitment, training and development), employee job performance, and performance appraisal in the telecom sector of Pakistan. To discover the influence of human capital management practices on the job performance of employees, a study of Asiaei and Jusoh (2015) analysed the contribution of intellectual capital in enhancing firm performance in Tehran. They emphasise on relational capital, social capital, human capital, and structural capital. They found that human capital, relational capital and structural capital, are significant to bringing about a positive impact on a organisations' performance. However, the study failed to find the contribution of social capital in driving firm performance.

Further studies have been conducted on intellectual capital. Sharabati, Radi, Nour, Durra, and Moghrabi (2013) conducted a study to assess and analyse the intellectual capital for tourism office performance. The study found a positive relationship between intellectual capital and the performance of tourist offices in Jordan. In another study, Ahangar (2011) examined the effectiveness of intellectual capital on performance. The study discovered that there is a significant positive relationship between intellectual capital and performance. Moreover, Yadiati (2019) examined the effect of intellectual capital of green relational capital, green social capital, and green human capital on an organisation's environmental performance. The results found that green intellectual capital and organisational reputation positively affected environmental performance. Ramírez (2013) analysed the intellectual importance of capital management to face the challenges in European universities. Ramírez provides assistance in enabling universities to identify and manage their intangible assets. Al-Dujaili (2012) examined the effectiveness of intellectual capital on organisational creativity. The study results indicated that there is a strong positive relationship between the effectiveness of intellectual capital and organisational creativity. Handzic and Öztürk (2010) mentioned that there is a common recognition of intellectual capital importance as the main source of competitive advantage for different enterprises operating in today's knowledge economy. Specifically,

universities are recognised as being crucial to the economy as transmitters of knowledge and the prime producers in society. Thus, the management and measurement of intellectual capital by universities is becoming an increasingly essential matter in knowledge management practice and research. The authors argued that universities need to use intellectual capital as a tool to aid them in facing management challenges and diffuse their activities and intangible resources to their stakeholders and society. Cuozzo, Dumay, Palmaccio and Lombardi, R. (2017) found that there is a lack of significant innovation and research in the evolution of intellectual capital disclosure. Studies focused on general issues that rely on the reports of European companies. in addition, there are insufficient studies investigated intellectual capital disclosure in countries around the world, nor the organisational level to examine intellectual capital disclosure.

This study reviews previous studies about the relationship between intellectual capital and performance. However, there is no prior study that examined the relationship between intellectual capital and performance at universities from academic staff members' perspectives. Therefore, this study is going to examine this relationship at universities. In addition, in this study, the intellectual capital domains have been modified to be more suitable to achieve the aims of this study. Hence, based on the above literature, the present study hypothesises that:

Intellectual capital has a positive impact on the job performance of faculty members at Jordanian universities.

The main hypothesis has been divided into sub-hypotheses:

Sub-Hypothesis No. 1: Human capital has a positive impact on job performance of faculty members at Jordanian universities.

Sub-Hypothesis No. 2: Intellectual assets have a positive impact on job performance of faculty members at Jordanian universities.

Sub-Hypothesis No. 3: Intellectual property has a positive impact on job performance of faculty members at Jordanian universities.

Sub-Hypothesis No. 4: Structural capital has a positive impact on job performance of faculty members at Jordanian universities.

Sub-Hypothesis No. 5: Relational capital has a positive impact on job performance of faculty members at Jordanian universities.

The independent and dependent variables of the hypothesised model are presented along with their domains in the following form:
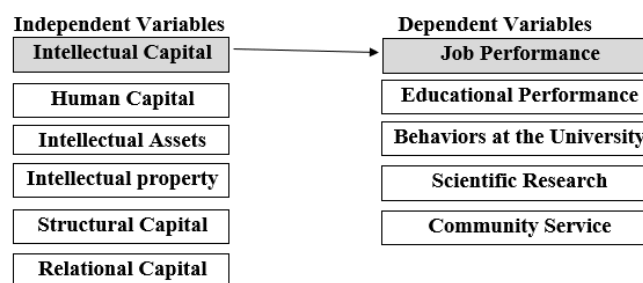
Figure 1. the hypothesized model

3. Methodology

The study used a cross-sectional design. The study population was the academic staff at Jordanian universities. The participants were chosen randomly from different faculties. The academic staff had different ranks such as lecturers, assistant professors, associated professors, and professors. They worked in different departments and faculties such as the faculty of administrative and financial sciences, the faculty of law, and the faculty of literature. The majority of the staff were PhD holders.

The questionnaire was distributed at six universities. Two of these universities were public and four were private. The number of questionnaires that were distributed was 600, and the number of returned questionnaires was 398. The response rate was 66%. This study used a quantitative method (cross-sectional survey) to investigate the impact of intellectual capital on the job performance of faculty members at Jordanian universities, and the

questionnaire was developed by the researcher. In this study, a series of statements about intellectual capital concepts was derived from various studies. The questionnaire has 34 statements about intellectual capital.

The study relied on a questionnaire for data collection. The questionnaire was built based on the literature and was divided into three sections. The first section includes the demographic variables of participants such as gender, age, country of certificate, faculty, academic rank and experience. The second section has five domains and 34 items related to intellectual capital. The domains of intellectual capital were human capital, intellectual assets, intellectual property, structural capital, and relational capital. The third section has four domains with 21 items related to job performance. The job performance domains were educational performance, behaviours at the university, scientific research, and community service. The answers for the second and third sections were based on a 5-point Likert scale. The response options were from 1 (Strongly Disagree) to 5 (Strongly Agree). The statements for the second and third sections were made up of positive and negative statements. For validity, face validity and content validity were conducted on the questionnaire. The questionnaire was sent to PhD holders so they could provide feedback about the questionnaire and how the researcher could improve it to be more suitable and accurate. The questionnaire was modified based on comments from the PhD holders.

For a pilot study, the questionnaire was distributed randomly among faculty staff at two universities (public and private universities). The pilot study was conducted in Jordan in November 2019. The purpose of the pilot study was to assess the reliability of the questionnaire, receive comments about the questionnaire statements, and give a good sense of how the study procedures worked in practice. The data collected in the pilot study was subjected to reliability analysis. The analyses showed a Cronbach's alpha value of 0.81, and therefore, the questionnaire was considered a reliable tool.

The data from the survey was entered directly into the Statistical Program for Social Sciences (IBM SPSS) for analysis. Before the analysis, coding for the negatively worded items of the questionnaire was reversed, and mean values for items were computed. The data analysis firstly provides basic descriptive information on the distribution of selected demographic data (frequency, percentage, mean, and standard deviation), followed by the items referring to intellectual capital. To examine the impact of intellectual capital on the job performance of faculty members at Jordanian universities, the linear regression test was performed.

4. Results

The results showed the characteristics of the study participants. In addition, it showed the mean and standard deviation of the intellectual capital domains and items. Furthermore, the results show the mean and standard deviation of job performance domains and items. Finally, the impact of intellectual capital on job performance was calculated.

Table 1 shows the frequencies and characteristics of participants. According to gender, there are nearly three times as many male participants to female participants. 74.4% of the participants were male and 25.4% were female. Based on the county of the certificate, more than half of the participants graduated from Arabic countries (60.1%). According to age group, most of the participants were between 40 - > 50 years old (40.7%.) More than half of the participants belong to the faculty of administrative and financial sciences at 54.3%. Based on the academic rank, the majority of participants were assistant professors (58.8%), and based on experience, nearly half of the participants had   between 6 to 10 years of experience (49%).

Table 1. Characteristics of the study participants

Characteristics	Groups	Count	%
Gender	Male	297	74.4
	Female	101	25.4
Country of Certificate	Arabic Country	239	60.1
	Native English Speaking Country	56	14.1
	Western European Country	62	15.6
	Eastern European Country	41	10.3
Age	< 40 years old	145	36.4
	40 - < 50 years old	162	40.7
	50 - < 60 years old	54	13.6
	60 years old or more	37	9.3
Faculty	Administrative and Financial Sciences	216	54.3
	Law	11	2.8
	Engineering	23	5.8
	Literature	62	15.6
	Information Technology (IT)	21	5.3

	Nursing	15	3.8
	Sciences	32	8.0
	Medicine	18	4.5
Academic Rank	Instructor	77	19.3
	Assistant Professor	234	58.8
	Associated Professor	72	18.1
	Professor	15	3.8
Work experience	< 5 years	93	23.4
	6 - 10 years	195	49.0
	11 - 15 years	89	22.4
	> 15 years	21	5.3

The results of Table 2 show the mean and standard deviation of intellectual capital domains and items. The first domain was human capital which consists of six items. The item 'Faculty members have the ability and enough knowledge to simplify information for students' achieved the highest mean (mean= 4.08), with a standard deviation of 0.93. The second domain was intellectual assets, which also consisted of six items. The item 'Faculty members should have a profile where student scores, activities, and research is kept' achieved the highest mean (mean= 4.07), with a standard deviation of 0.83. The third domain was intellectual property. This consisted of five items. The item 'The university has a portfolio of intellectual property' had the highest mean (mean= 4.11), with a standard deviation of 0.72. The fourth domain was structural capital, which consisted of nine items. The item 'There is a strong Internet network at the university' had the highest mean (mean= 4.14), with a standard deviation of 0.86. The fifth domain was relational capital, which consisted of eight items. The item 'There is active cooperation and communication (meetings, seminars, conferences, and arbitration projects) among different faculty members at the university' had the highest mean (mean= 3.98), with a standard deviation of 0.90.

Table 2. Mean and standard deviation of intellectual capital domains and items

Domains	Intellectual Capital Items	Mean	SD
Human Capital	Faculty members have different nationalities.	4.07	0.88
	Faculty members hold certificates from Arab and foreign universities.	4.00	1.05
	Faculty members have the ability to use different methods of teaching such as using books, references, assignments for students, educational materials from the Internet, and power points.	4.05	0.88
	Faculty members have the ability and enough knowledge to simplify information for students.	4.08	0.93
	Faculty members have sufficient teaching skills to simplify information for students.	3.51	1.01
	Faculty members encourage students to be creative by providing new ideas and applications.	3.81	1.09
Intellectual Assets	Regulations and instructions of the university are passed to faculty members.	3.86	0.94
	Faculty members should have a profile where student scores, activities, and research is kept.	4.07	.083
	Faculty members use official letters effectively in administrative and academic processes.	3.75	1.02
	All external and internal leaflets and letters are passed to faculty members.	3.77	1.00
	Software programs on the computers of faculty members, are updated continuously.	3.45	1.15
	The faculty member's file contains all of the activities during the semester.	3.36	1.05
Intellectual Property	The university owns formally registered intellectual property.	3.78	1.09
	The university has a portfolio of intellectual property	4.11	0.72
	The university does marketing for its intellectual property.	4.00	0.65
	The university programmes have the ability to attract students.	3.91	0.80
	Faculty members publish at least two papers every three years.	3.86	0.76
Structural Capital	The university has an effective program to achieve the objectives of the academic program.	3.84	0.88
	The university has an effective database and software for various disciplines and can be used by students and faculty members.	3.62	1.06
	There is a strong Internet network at the university.	4.14	0.86
	The teaching load for faculty member is fair.	4.08	0.82
	Lecture times are suitable for faculty members and students.	4.01	0.81
	The work environment is conformable regarding scientific atmosphere, squares, field and trees.	3.82	0.88
	The library contains valuable books.	3.79	0.96
	The library contains new books.	3.99	0.94

Relational Capital	Faculty members are satisfied about research databases that are available at the university.	3.94	0.85
	There is active cooperation and communication (meetings, seminars, conferences and arbitration projects) among different faculty members at the university.	3.98	0.90
	There is active cooperation and communication (meetings, seminars, conferences and arbitration projects) among different department members at the same faculty.	3.91	0.95
	The university has a good reputation at the local level.	3.73	0.92
	There is cooperation between the university and other local universities.	3.73	0.88
	There is collaboration between the university and universities from different countries.	3.52	0.91
	The university provides assistance, financial aid and material support to the local community.	3.32	1.03
	The university gives priority in recruitment to people who live nearby to the university.	3.21	1.16
	The university takes into account the acceptance of people with special needs.	3.36	1.08
	All items	3.80	0.49

The results of table 3 show the mean and standard deviation of job performance domains and items. The first domain was educational performance. It consists of six items. The item 'Faculty members do their work in an effective and efficient manner' had the highest mean (mean= 4.24), with standard deviation 0.80. The second domain was behaviours at the university, which consists of five items. The items 'Faculty members have a commitment to lecture time' and 'There is a cooperative relationship between faculty members' both had the highest mean (mean= 4.16 for both items), with standard deviations of 0.85 and 0.84 respectively. The third domain was scientific research, which consisted of six items. The item 'Faculty members conduct studies and scientific research consistently' had the highest mean (mean= 3.89), with a standard deviation of 0.93. The last domain was community service. It consists of four items. The item 'Faculty members participate in solving community problems' had the highest mean (mean= 4.01), with a standard deviation 0.90. The mean for all items was 3.87 with a standard deviation 0.44.

Table 3. Mean and standard deviation of job performance domains and items

Domains	Job Performance Items	Mean	SD
Educational Performance	Faculty members are familiar with work information.	3.92	1.08
	Faculty members do their work in an effective and efficient manner.	4.24	0.80
	Faculty members do their work accurately.	4.17	0.82
	Faculty members initiate new and significant ideas.	4.03	0.70
	Faculty members are committed to completing the syllabus on time.	3.84	0.78
	Faculty members use different methods for teaching.	3.67	0.93
Behaviours at the University	Faculty members have a commitment to lecture time.	4.16	0.85
	There is a cooperative relationship between faculty members.	4.16	0.84
	Faculty members apply work rules and procedures accurately.	4.02	0.85
	The relationship between faculty members and students is formal.	3.86	1.03
	Faculty members participate in solving department and faculty problems.	3.62	1.00
Scientific Research	Faculty members conduct studies and scientific research consistently.	3.89	0.93
	Faculty members rely on up to date references.	3.86	0.98
	Faculty members attend conferences and seminars.	3.63	1.00
	Faculty members attend workshops to develop their performance.	3.60	1.01
	Faculty members are willing to do scientific research.	3.76	0.83
	Faculty members read professional scientific research continuously.	3.54	0.96
Community Service	Faculty members cooperate with the local community service associations.	3.90	1.00
	Faculty members provide free lectures to the local community.	3.97	0.95
	Faculty members provide free training courses to the local community.	4.00	099
	Faculty members participate in solving community problems.	4.01	0.90
	All items	3.87	0.44

4.1 Test of Hypotheses

The study hypotheses have been developed and tested as follows. The study examined the main hypothesis, which states: "Intellectual capital has a positive impact on the job performance of faculty members at Jordanian universities."

Table 4 shows the impact of intellectual capital on job performance. Multiple linear regression analysis was performed, which confirmed that there is a positive high impact of intellectual capital on job performance (Correlation Coefficient (R) = 0.69). Also, the study concludes that the independent variable (intellectual capital) interprets 48% of the variance in the dependent variable (R^2 = 0. 48), which means that the regression equation

predicted almost a 48% contribution of intellectual capital to job performance in the faculty members at Jordanian universities. In addition, the models' respective F, and beta coefficient scores were significant (F=363.60, β= 0.69, p =0. 00), therefore, the impact of intellectual capital on job performance is highly significant.

Table 4. The impact of intellectual capital on job performance

	Job Performance					
Intellectual Capital	R	R^2	B	Beta (β)	F	Sig (F)
	0.69	0.48	0.77	0.69	363.60	0.00

Sub-Hypothesis No. 1: "*Human Capital* has a positive impact on the job performance of faculty members at Jordanian universities". Table 5 shows the impact of *Human Capital* on job performance**.**

Table 5. The impact of Human Capital on job performance

	Job Performance					
Human Capital	R	R^2	B	Beta (β)	F	Sig (F)
	0.53	0.28	0.51	0.53	155.54	0.00

Sub-Hypothesis No. 2: "*Intellectual Assets* have a positive impact on the job performance of faculty members at Jordanian universities". Table 6 shows the impact of *Intellectual Assets* on job performance.

Table 6. The impact of Intellectual Assets on job performance

	Job Performance					
Intellectual Assets	R	R^2	B	Beta (β)	F	Sig (F)
	0.37	0.13	0.36	0.37	60.86	0.00

Hypothesis No. 3: "*Intellectual Property* has a positive impact on the job performance of faculty members at Jordanian universities". Table 7 shows the impact of *Intellectual Property* on job performance.

Table 7. The impact of Intellectual Property on job performance

	Job Performance					
Intellectual Property	R	R^2	B	Beta (β)	F	Sig (F)
	0.43	0.19	0.33	0.43	91.30	0.00

Hypothesis No. 4: "*Structural Capital* has a positive impact on the job performance of faculty members at Jordanian universities". Table 8 shows the impact of *Structural Capital* on job performance.

Table 8. The impact of Structural Capital on job performance

	Job Performance					
Structural Capital	R	R^2	B	Beta (β)	F	Sig (F)
	0.54	0.29	0.42	0.54	164.21	0.00

Hypothesis No. 5: "*Relational Capital* has a positive impact on the job performance of faculty members at Jordanian universities". Table (9) shows the impact of *Relational Capital* on job performance.

Table 9. The impact of Relational Capital on job performance

	Job Performance					
Relational Capital	R	R^2	B	Beta (β)	F	Sig (F)
	0.60	0.36	0.46	0.60	225.45	0.00

5. Discussion

This study aimed to examine the impact of intellectual capital on the job performance of faculty members at Jordanian universities. The intellectual capital and job performance at Jordanian universities in this study were high. In addition, the study found a highly positive impact of intellectual capital on job performance.

The study results are consistent with other studies that also found a positive correlation between intellectual capital and job performance (Sharabati, et al., 2013; Wanjala; 2013; Al-Dujaili, 2012 & Ahangar, 2011).

Since Jordanian universities require maintaining and making improvements in the productivity of intellectual capital, this can assist Jordanian universities to move to the top rank in the Middle East area. The measurement of university performance is essential for the higher-education system in Jordan. Intellectual capital considers a competitive advantage for universities. The academic staff who work in these universities that motivate intellectual capital do their best to develop the learning process and its outcomes. Intellectual capital is considered a hidden treasure that needs to be extracted for existence and practice. It is also considered to be a wealth factor for any organisation (Todericiu & Serban, 2015). Cabrita and Bontis (2008) showed that there are different domains from which intellectual capital is comprised. Furthermore, intellectual capital has a direct impact on job performance. Adam and Urquhart (2009) mentioned that both cognitive and intellectual capital have a positive influence in service sectors. There are other researchers who supported the relationship between intellectual capital and performance such as Sundać and Fatur (2009). Ahangar (2011) confirmed that human intellect key to intellectual capital, and creates value-added efficiency and increases the efficiency of an organisation to be profitable. Using intellectual capital is considered significant in enhancing organisational profitability and performance. Managerial practices that utilise intellectual capital create more success through the organisation's inputs, which leads to better performance. These studies were consistent with this current study.

Nevertheless, there are some studies that were conducted to investigate the relationship between intellectual capital and job performance which found a negative impact or no relation between these two concepts. Moreover, Kamath (2008) examined the relationship between intellectual capital and job performance and found no relationship between them. The explanation for these finding could be because there are some factors that could directly or indirectly effect the relationship between intellectual capital and job performance negatively. In the study of Handzic and Öztürk (2010), discoveries for human capital demonstrate a generally positive picture. These discoveries uncover that there is an all-inclusive acknowledgment of the significance. This is a significant and empowering finding. Interestingly, the discoveries for structural capital are isolated. Despite the fact that there is a far-reaching affirmation of its significance, the dispersion of current outcomes suggests a somewhat negative general judgment of the structural capital at present. Significant inadequacies have been distinguished in the territories of (i) specialty research domains and scholarly contributions; and (ii) supporting information technology and library infrastructure and services. The first problem is reinforced by comments on teaching overload and the lack of necessary time and opportunities to conduct and present research.

Ramírez (2013) examined intellectual capital European colleges. The investigation characterises the means to build up a model of intellectual capital administration at colleges. In this sense, an important beginning stage would be the definition and diffusion of enterprises' vital targets. At that point, basic intangibles identified with these goals ought to be distinguished and the causal system of the relationship among them ought to be set up. Finally, an intermittent review of the model to adjust to new difficulties ought to be completed.

Despite the essential theoretical and practical implications, the study also has a few limitations that need to be discussed, and further study is recommended in the future. Firstly, the study relied on a cross-sectional research design; and research in the future needs to use interviews to gain in-depth data regarding intellectual capital and its effect on performance. Secondly, this study only explores the effect of intellectual capital on performance at universities from academic staff members; however, future studies need to focus on this effect from the perspective of senior managers and the deans of faculties. New studies need to be concentrated on these factors to obtain more information and a comprehensive understanding of the impact of intellectual capital on job performance.

6. Conclusion

In conclusion, intellectual capital is a significant factor in enhancing the performance of universities. Therefore, Jordanian universities need to pay attention to intellectual capital to maintain their performance and improve the higher-education system in Jordan. Intellectual capital increases growth and improves the effectiveness and efficiencies of universities. It improves the image of universities in the education industry. Universities that adopt intellectual capital can utilise their tangible and intangible resources to compete with other universities.

The improvement of the components of intellectual capital (human capital domain, intellectual assets domain,

intellectual property domain, structural capital domain, and relational capital domain) support the development of university performance. Universities should allocate enough budget to maintain their intellectual capital. In addition, human resources in universities need to receive orientation and training to utilise the facilities and infrastructure available in their universities. This makes the academic staff more active and cooperative in different areas such as research activities.

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The Impact of Ownership Structure on the Private Information: An Empirical Study Based on China's A-Share Market

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Abstract

Ownership structure will have a certain impact on the private information of a company, which will have a complex impact on the financial market. Therefore, it is necessary to study the impact of the ownership structure on private information. This paper uses the monthly data of individual stocks in A-share from 2019 to 2020 to calculate the goodness of fit R^2 of the CAPM model to measure the private information content, and then conducts multiple analysis processes such as multicollinearity analysis and heteroscedasticity analysis to ensure the accuracy of the model. Then, this paper uses the WLS regression method for final calculation. The results show that the higher ownership concentration, the less private information content, the weaker private information arbitrage. Finally, this paper puts forward some valuable suggestions for China's financial market based on the empirical results.

Keywords: ownership structure, private information, CAPM model, WLS regression

1. Introduction

The content of various types of information in the financial market can reflect the efficiency of a market to a certain extent, and it is also an important basis for measuring whether the financial market is running well. Compared with the developed countries, China's financial market opened relatively late and its openness is relatively weak. Therefore, the private information content in China's stock prices may be higher, and the phenomenon of private information arbitrage may become more serious. Excessive private information content will lead to increased information asymmetry, damage the interests of shareholders, deepen the unfairness and opacity of the stock market, and is not conducive to the healthy development of the stock market. Therefore, it is necessary to analyze the factors affecting private information content. At the same time, existing research shows that ownership structure has an important impact on private information. This paper will apply a method to measure the impact of ownership structure on private information and take the A-share market as the research object for empirical research, verify the hypothesis, and put forward relevant suggestions, finally provide reference for the development of China 's financial market.

The main structure of this paper is as follows. Firstly, this paper reviews the relevant literature and theories, and then proposes hypotheses. Secondly, it uses the method proposed by Roll (1988) to measure the private information content in stock prices and constructs a regression model for empirical analysis. Finally, it verifies the hypotheses and draws relevant conclusions.

2. Literature Review

As early as the last century, Roll (1988) proposed that R^2 can be used to measure the content of private information in stock prices. Subsequently, many scholars conducted in-depth studies on private information based on this method. Feng Yongfu, Dong Yan, and Yuan Zebo (2009) conducted an empirical analysis on China based on Roll's study and found that the higher the shareholding ratio of institutional investors, the higher the degree of investors use private information for arbitrage, and the higher the shareholding ratio of the largest shareholder, the higher the degree of private information arbitrage; Xu Feng, Fan Daqiang, and Xie Dan (2012) used the generalized difference method to test the hidden transaction hypothesis that private information does have a substantial impact on the price fluctuations in stock market. Moreover, the owners of private information operate through a certain type of transaction, which effectively prevents the excessive leakage of private

information and ensures the use of private information to profit; Kong Xiangfeng, Zhao Yujie, and Ma Yue (2015) have similar research ideas with this paper, and it proves that there is a positive relationship between the proportion of the largest shareholder's shareholding and private information arbitrage, so this study can be used as a supplementary study of this paper.

Regarding the relationship between public information and private information, Wang Yan (2006) used non-parametric method to prove that information disclosure does not necessarily reduce the degree of information asymmetry, that is, the two may have a complementary relationship; Wang Chunfeng, Zhang Shuqi, and Fang Zhenming（2018）used VPIN as the proxy variable of private information to further verify that there may be a complementary effect of public information and private information in China's A-share market; Liu Jiong（2019）studied the speed of information integration, and used multiple regression to verify the competitive relationship between public information and private information integration, and verify that more private information integration reduces the speed of information integration of public information.

In summary, many scholars have conducted a lot of research on the relationship between information and the stock market, and different research objects and methods are likely to lead to completely different conclusions. At the same time, domestic research on the impact of ownership structure on private information is not much, so this paper can fill this gap to a certain extent. Moreover, focusing on China's A-share market for research has better applicability to the actual situation in China, whose conclusions will have great reference value, and the suggestions put forward for the conclusion will also have great practical significance.

3. Existing Related Theories and Hypotheses

3.1 Characteristics of China's Ownership Structure

Since China is a socialist country, the proportion of state-owned capital in listed enterprises will be greater than that in capitalist countries, and special products such as tradable shares and non-tradable shares have been born. However, with the continuous changes of China's development strategy, and with the continuous deepening of equity reform, the proportion of state-owned capital holdings is gradually decreasing, and the phenomenon of the ' dominance ' of state-owned shares is also weakening. Wang Xinhong and Zhang Zhuanjun (2019) also confirmed this by data analysis. They also pointed out that the ownership concentration of listed enterprises in China is still high, and the ownership concentration of the main board listed enterprises is higher than that of the SME board and GEM.

Therefore, the ownership structure of listed enterprises in China has the typical characteristics of large proportion of state-owned holding and high ownership concentration.

3.2 Efficient Market Hypothesis Theory

In order to better understand the impact of ownership structure on the private information, it is necessary to explain the efficient market hypothesis. Malkiel and Fama(1970) proposed that effective markets can be divided into three categories, namely weak efficient market, semi-strong efficient market and strong efficient market. Weak efficient market refers to prices that have reflected all historical information, technical analysis methods are invalid, and public or private information is needed to obtain excess returns; semi-strong efficient market refers to prices that have reflected all historical and public information, technical analysis and fundamental analysis methods are ineffective, and private information is needed to obtain excess returns; a strong efficient market refers to that prices have already reflected all information including historical information, public information, and private information, so it is almost impossible to obtain excess returns, but only the average return of the market can be obtained.

The theoretical basis of efficient market hypothesis plays an important role in understanding the relationship between public information and private information, and the impact of ownership structure on private information.

3.3 The Relationship between Public Information and Private Information

Many scholars believe that public information and private information have substitution effects and complementary effects. Substitution effect refers to the fact that public information and private information can replace each other. Information disclosure requirements enable private information to be converted into public information after it is published, thereby reducing information asymmetry. Complementary effect means that the increase of public information will lead to the increase of private information, because public information may become the source of private information and become the driving force for some people to collect private information, thereby exacerbating the degree of information asymmetry. Therefore, by understanding the relationship between public information and private information, combined with the efficient market hypothesis,

we can further explore the impact of information on the market, and we can better study the impact of ownership structure on private information.

3.4 The Impact of Ownership Concentration on Private Information Arbitrage

Regarding the impact of ownership concentration on private information, it is mainly the impact of ownership concentration on private information arbitrage, that is, the impact on the degree of investor protection. There are mainly two mainstream views, one is the supervision hypothesis, and the other is the predation hypothesis. The supervision hypothesis refers to that with the increasing of the degree of ownership concentration, there will be gradual convergence between the interests of major shareholders and the interests of the company, so that the major shareholders will strive to maximize the company's profits, and then the interests of small shareholders can also be maximized; the predatory hypothesis is quite the contrary, it means that with the increasing ownership concentration, the degree of information asymmetry between large shareholders and small shareholders will deepen, and large shareholders will be able to grasp more information, which will lead to more private information arbitrage and further damage the interests of other shareholders.

Due to these two different statements, it is difficult to determine the impact of ownership concentration on private information. Therefore, it is necessary to conduct empirical analysis on the A-share market to verify the application of different hypotheses in China, and to better propose targeted suggestions to improve the development of the financial system.

Therefore, this paper proposes the following two hypotheses:

1. In the A-share market, the higher the ownership concentration, the higher the content of private information, that is, the predatory hypothesis is more applicable;

2. In the A-share market, the higher the ownership concentration, the lower the content of private information, that is, the supervisory hypothesis is more applicable.

4. Empirical Verification

4.1 Sample Selection and Data Processing

This paper selects the available data of all listed enterprises in A-share market, during the two years from 2019 to 2020, including the Sci-tech Innovation Board and GEM. A total of 4166 samples were initially included, leaving 1429 valid samples after deleting missing and faulty samples. All data in this paper come from Guotaian database.

4.2 Variable Definition

(1) Explained Variable

The explained variable selected in this paper is $INFO$, which can reflect the content of private information to a certain extent. The statistical significance of R^2 is the ratio of the sum of squares of regression to the sum of squares of total regression in the linear regression model, representing the explanatory power of the linear regression model. The greater the R^2, the greater the explanatory power of the model. According to Roll (1988), if we want to use R^2 to measure private information content, we also need to introduce CAPM model, because the R^2 in CAPM model is actually the explanatory power of systemic factors on individual stocks, rather than the part explained by the model, it can be understood as the impact of noise and private information on individual stocks. The specific calculation formula is as follows:

$$r_i = \alpha + \beta r_m + \varepsilon \tag{1}$$

Among which: r_i is the monthly rate of return on individual stocks; r_m is the monthly market rate of return, calculated by comprehensive monthly market rate of return that does not consider cash dividend reinvestment and is calculated by weighted average method of total market value; α and ε are intercepts and random errors, respectively. The regression results of R^2 are obtained from the data from January 2019 to December 2020.

Since the value of (1- R^2) ranges from 0 to 1, accurate results cannot be obtained by using least squares regression, so it is necessary to learn from the method of Qi Songchao (2012) and use the following formula to calculate:

$$INFO = \log(\frac{1-R^2}{R^2}) \tag{2}$$

In the formula, the higher the content of private information, the larger the $INFO$.

(2) Explanatory Variable

The explanatory variable of this paper is the shareholding ratio $SHARE$ of the largest shareholder that can be used to reflect ownership concentration. The time cut-off point of the data is the shareholding ratio announced on December 31, 2020.

(3) Control Variable

Since the financial indicators of an enterprise can well reflect its operating conditions, this paper mainly uses the representative financial indicators of the enterprise as the control variable, and takes December 31, 2020 as the time cut-off point. Three mainly financial indicators are as follows:

① Debt-to-asset ratio DAR. The debt-to-asset ratio can measure the degree of financial risk of an enterprise, and can reflect whether an enterprise is in good operating conditions, so it obviously has an impact on the content of private information.

② Total asset turnover rate TAT. The total asset turnover rate can reflect the operating capability of an enterprise. Generally speaking, the higher the total asset turnover rate, the stronger the enterprise's operating capability, and it will also have a greater impact on the content of private information.

③ Net profit margin on sales $NPMS$. Net profit margin on sales can reflect the profitability and business prospects of an enterprise, and have an impact on private information. The higher the net profit margin on sales, the stronger the profitability of an enterprise.

4.3 Model Design

In order to prove the hypotheses proposed in this paper, a series of regression analysis needs to be performed using the above variables. The specific model is as follows:

$$INFO = \alpha + \beta_1 SHARE + \beta_2 DAR + \beta_3 TAT + \beta_4 NPMS + \mu \tag{3}$$

Among which, μ is the stochastic perturbation term, and β_1 is the most critical coefficient. If the coefficient β_1 is significantly positive, it means that the higher the ownership concentration, the higher the content of private information, that is, the predatory hypothesis is more applicable, and the hypothesis 1 holds, conversely, the hypothesis 2 holds.

4.4 Empirical Results and Analysis

4.4.1 Descriptive Statistics of Variables

Table 1. Descriptive statistics of variables

	INFO	*DAR*	*NPMS*	*TAT*	*SHARE*
Average Value	1.297202	0.4303722	-0.108616	0.5919944	0.3040985
Standard Deviation	1.575995	0.2109005	3.376547	0.4464785	0.1398059
Minimum Value	-4.080332	0.0142676	-95.71913	0.0001436	0.03
Maximum Value	13.8998	2.175867	18.45258	5.988063	0.8341

Table 1 shows the results of descriptive statistics of variables. It shows that the standard deviation of $INFO$ is large, and the difference between the maximum value and the minimum value is large. Therefore, it can be considered that the private information content of different enterprises in the A-share market is quite different; the maximum and minimum values of *DAR* are quite different, but its average value is about 0.43, indicating that the overall debt level of A-share enterprises is relatively normal, and the risk of the A-share market is relatively small; the average value of *NPMS* is negative, and it has a large standard deviation and extreme deviation. To a certain extent, this shows that the profitability of different A-share enterprises has a large gap, and it does not rule out that individual enterprises have great investment risks; the extreme deviation of $SHARE$ is also relatively large, indicating that there are also great differences in ownership concentration among different enterprises, but its average value reached 0.34, indicating that most of the listed companies in China have a high ownership concentration.

4.4.2 Correlation Analysis

Table 2. Pearson correlation coefficient matrix

	INFO	*SHARE*	*DAR*	*NPMS*	*TAT*
INFO	1.000				
SHARE	-0.051*	1.000			
DAR	-0.011	0.005	1.000		
NPMS	-0.027	0.068***	-0.127***	1.000	
TAT	-0.029	0.042	0.116***	0.056**	1.000

Note. * * *, * *, * are significant at the level of 1%, 5% and 10% respectively.

Table 2 shows the Pearson correlation coefficient between the main variables in this paper. It can be seen that the correlation coefficient between *SHARE* and *INFO* is negative, and it is significant at 10% significance level, indicating that it is likely that ownership concentration and private information content show a negative relationship. That is, the hypothesis 2 proposed above may be established, but further empirical studies are needed to verify it. At the same time, although there is more or less correlation between other variables, it is not very high. That is, there is no serious multicollinearity problem.

4.4.3 Multicollinearity Analysis

In order to avoid the problem of multicollinearity in regression, it is first necessary to judge whether the data has multicollinearity. If there is no multicollinearity, the regression conditions of least squares method should be satisfied. The Pearson correlation coefficient matrix above has explained to a certain extent that there is no serious multicollinearity between variables. For the accuracy of the conclusion, this paper uses the method of calculating the variance inflation factor (VIF) to judge the multicollinearity. The calculation results are shown in the following table:

Table 3. VIF calculation results

	DAR	*NPMS*	*TAT*	*SHARE*	*Average Value*
VIF	1.03	1.03	1.02	1.01	1.02

It can be seen that the VIF values in Table 3 are all far less than 10, so it can be considered that there is no multicollinearity in the data and the data meets the requirements of least squares regression.

4.4.4 Heteroscedasticity Analysis

To ensure the accuracy of the regression results, it is also necessary to determine whether the data has heteroscedasticity. If there is heteroscedasticity, the least squares regression needs to be corrected; if there is no heteroscedasticity, the regression result is relatively reliable. This paper uses the BP test method to test heteroscedasticity, and the results show that the p value is 0.0285, indicating that the null hypothesis is rejected at the 5% significance level, that is, heteroscedasticity exists and the least squares regression needs to be corrected.

4.4.5 Regression Analysis

The results of the BP test have shown that the data has heteroscedasticity, so this paper uses the weighted least squares method (WLS) to correct it. After repeated attempts, this paper finally selects the following formula as the weight w of the weighted least squares method:

$$w = 1 / \sqrt{\exp(c_1 DAR + c_2 TAT + c_3 NPMS + c_4 SHARE + c_5 DAR^2 + c_6 TAT^2 + c_7 NPMS^2 + c_8 SHARE^2)} \qquad (4)$$

In which, $c_i (i = 1, 2, \cdots, 8)$ is the regression coefficient of each variable in the formula, and the values of each coefficient in the formula are shown in the following table:

Table 4. Value reference of the coefficients

Coefficient	c_1	c_2	c_3	c_4	c_5	c_6	c_7	c_8
Value	-0.635	-0.132	-0.097	-3.343	0.614	-0.011	-0.002	3.561

The resulting new model is as follows:

$$wINFO = w\alpha + w\beta SHARE + w\beta DAR + w\beta NPMS + w\mu \tag{5}$$

The results of the regression are shown in the following table:

Table 5. WLS regression results

$INFO$	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
$SHARE$	-0.373	0.201	-1.85	0.064	-0.768	0.022
DAR	0.21	0.139	1.51	0.131	-0.062	0.482
$NPMS$	-0.013	0.002	-8.07	0.000	-0.017	-0.010
TAT	-0.073	0.039	-1.86	0.064	-0.15	0.004
_cons	0.889	0.101	8.83	0.000	0.692	1.087
Obs	1429					
R^2	0.1020					

It can be seen that the coefficient of $SHARE$ in Table 5 is -0.373, and it is significant at a significance level of 10%. Therefore, it can be considered that there is a significant negative relationship between ownership concentration and private information content. That is to say, the higher the ownership concentration, the less private information content may be, and the phenomenon of private information arbitrage will be less, that is, the hypothesis 2 proposed above holds, and the supervisory hypothesis is more applicable in China's financial market. The current level of supervision in China is relatively good; the coefficient of $NPMS$ is -0.013, and it is significant at the level of 1%, indicating that although the profitability of an enterprise does not have a large impact on the content of private information, the stronger the profitability, it may be to a certain extent, the content of private information is weakened, whose possible reason is that when the enterprise aims to maximize shareholder returns, the enterprise's supervision is stronger, resulting in less private information content; the coefficient of TAT is -0.073, and it is significant at the level of 10%, indicating that the higher the financial leverage of an enterprise, the less private information content may be, whose possible reason is that the high-indebted enterprise has greater operating risks, so the supervision is stronger, thereby inhibiting the phenomenon of private information arbitrage occur.

5. Conclusion and Suggestion

5.1 Conclusion

In this paper, the multicollinearity is excluded by calculating the VIF of the variables, and then the BP test is used to find that there is heteroscedasticity. Finally, this paper uses WLS regression to modify the model. The results show that the higher the ownership concentration, the lower the private information content of the enterprise, which means that the hypothesis 2 proposed above holds, and the supervision hypothesis is more applicable in China. Meanwhile, the ownership structure of China's A-share listed enterprises is quite different, so the private information content is quite different, and some enterprises have great investment risks. Moreover, most of the listed enterprises in China have a high ownership concentration, which will reduce private information arbitrage to some extent.

This paper analyzes the impact of ownership structure on private information by studying the relationship between ownership concentration and private information content, verifying the applicability of supervision hypothesis in China 's A-share market. At the same time, the research method in this paper is also universal and can be further extended to other stock markets at home and abroad.

However, due to the differences in ownership concentration, private information content and the influence

mechanism between the two in different stock markets, studies on other stock markets may obtain different results from this paper. Therefore, the results and conclusions of this study are not necessarily universal, but for the development of China ' s A-share market has great reference value and guiding significance. In addition, due to the availability of data, the research object of this paper is mainly large listed companies, while for non-listed companies, this paper has not done further research.

5.2 Policy Suggestion

According to the results and conclusions of this study, we found that some policy measures can promote the healthy development of China 's financial markets.

First, at present, most of the listed enterprises in China have a high ownership concentration which can restrain private information arbitrage to a certain extent, so we should try our best to maintain this ownership concentration. But it is also important to prevent excessively high ownership concentration, which may lead to the failure of supervisory hypothesis, thereby increasing private information arbitrage and damaging investors ' interests.

In addition, some enterprises in China have excessively high ownership concentration leading to great risk, and some unprofessional investors may invest in such companies and cause greater losses. Therefore, in order to protect the interests of investors, it is necessary to strengthen the supervision of the ownership structure and maintain good operation of financial markets.

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Investigating the Effect of Graduate Business Programs of the Schools of Business in Jordan in Forming Soft-Power Leadership Conceptualization among MBA Students

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Abstract

The main objective of the study is to explore the extent of the conceptualization of soft-power leadership among graduate business students, and the degree to which they apply the concept in their study programs in the Jordanian universities. In precise, to explore the effect of curriculums and courses, learning style, and the way the business program is managed in forming the concept of soft power leadership in students.

The analysis was extended to investigate the variation in the relationship between curriculums, learning style, and program management as independent variables and soft-power leadership concept as dependent variable due to the moderating variables gender, background education, and work sector. A sample of 350 students was drawn from two representative universities in Jordan. Data were collected by a self-designed questionnaire based on literature, Amos 21 was used in the analysis, and findings were as follows:

Students have positive attitudes toward soft-power leadership conceptualization with a satisfactory level of belief. Learning style and curriculums have been found to be of significant effect in soft-power conceptualization. This indicates that the American Model of Management Education (AMME) is applied in both curriculums and learning styles in business schools in Jordan.

With regards to the moderating effect of gender, background education, and job sector of students it was found that gender significantly affects the relationship between learning style and soft-power concept, and it does affect the relationship between program management and soft-power concept, Background education significantly affects the relationship between both curriculums and program management, and soft-power concept, while the job sector that students belong to in their work only affects significantly the relationship between program management and soft-power concept.

Keywords: soft power, business students, leadership, conceptualization, business programs, MBA, Jordan

1. Introduction

A leader is best when people barely know he exists, not so good when people obey and acclaim him; the worst is when they despise him (Lao-tsu, 630 BC). As the world experiences increasing globalization and democratization across boundaries and borders, and as the growth of emerging markets takes place in the world economy, research in management and leadership has to cope with and be cohesive in response to changes that occur in business firms all around the world.

Emphasis on human rights in politics and legislation are reflected by default in the way managers and leaders deal and communicate with their fellow workers and subordinates. Since leaders have to have a choice of how to lead, there may be different styles of leadership to choose from – for instance, coercing employees with threats, inducing them with payments and rewards, or attracting and persuading them – but in the end, a leader has to adopt what is suitable and chooses what will persuade and convince followers to do things based on their beliefs. Soft power is said to be the style to do the job as wanted (Nye, 2004) since it's the ability to shape preferences among employees and followers mainly in business firms, where it assumes commands to enforce decisions or attract others. Leaders in marketing have found themselves in a situation of needing to form an inclusive

team-oriented style of leadership based on participative and integrative decision-making to achieve personal and professional success.

For two decades, research in leadership and business management has intensified its efforts to look for a way to enrich the custodian values of being soft in leading and to replace the hard style, in which commands are enforced through coercive approaches and a hierarchical style of leadership, with an inclusive style that welcomes diversified perspectives and views from everyone. The information revolution in the last two decades has altered business organizations in a way that has started to see more of a participative process in leadership, and hierarchies are being defeated by a network of contracts, contacts, and outsourcing in both public and private organizations.

2. Background and Statement of the Problem

Since higher education forms a vital cornerstone in the formation of soft-power, and conceptualization of soft-power is best formulated among intellectual segments of people, and since business education in Jordanian universities is mainly based on management principles of the American origin, the main purpose and/or the problem of this study is to explore the conceptualization of soft-power leadership among students in MBA programs in Jordanian universities concerning three domains: curriculum content, instructors' style of learning, and the style of the program's management and implementation. Students that were chosen for the study were enrolled in MBA executive business programs in schools of business. Most of them came from various sectors of businesses and managerial and leadership positions or were aiming to do so in the future. Based on Nye's (2002) assertion that business education is the main channel to reach the integrative modern values of democracy, equality of opportunity, social mobility, freedom, and open-mindedness, the study is conducted based on the assumption that graduate business students in the universities in Jordan have a weak attraction to the soft-power concept as a basic foundation in the American model of business education that is adopted by the schools of business in Jordan.

3. Importance of the Study

The concept as an infant soft-power management theory has spread to the levels of both the syllabus and enterprise, and is being practiced in political as well as in business domains, and since there are more than seven thousand business schools around the world deploying business principles based on the American philosophy, the question arises of whether graduates – and MBA students in particular – are forming an understanding of the concept of soft power as part of their intellectual and practical framework.

Soft-power has proved to be an effective approach to leadership and is less costly in accomplishing objectives since it has influenced and shaped business minds across the world due to its being an effective way to bring others to like what you have or believe in (Nye, 2004).

Based on this vital verification of the influence of the concept on management practices in the US and other countries, and based on the theoretical proof that higher education is a cornerstone in spreading the concept and advocating the application of soft power in the business context, this study is thought to be an important investigative effort to discover the contributive role of graduate business programs in Jordanian universities in forming soft-power as an international reference in business and management education.

In addition, the study is believed to be of great value to scholars, specialists, and leading practitioners, as well as business students. Therefore, the study may also form a solid background that will enable further studies to explore the concept in other domains, such as social sciences, other specializations, or undergraduate programs. It may be of great value too to conduct this type of study on managers and leaders in both private and public sectors, as well as on faculty members in business schools either in Jordan or in the Arab world.

4. Objectives of the Study

This study aims to explore the extent of the conceptualization of soft-power leadership among graduate business students and the degree to which they apply the concept in their management practices in their jobs. The research also aims to explore whether the business curriculums and courses, as well as the learning style and how graduate business programs are managed and implemented, have anything to do with forming the concept of soft power in students.

The study also aims to investigate if an effect exists on the relationship between the material taught (curriculums), the way they are introduced (learning style), and the way the program was managed and implemented on one side, and the formation of the soft-power concept in students due to the moderating effect of variables such as gender, background education, and work sector. Since the American Management Model of Education (AMME) was implicitly meant to be adopted in the Jordanian higher education system. Therefore, the

researcher believes it worth's investigating the model application.

5. Literature Review

Management success depends on talent, trust, and soft-power (Evans & Wolf, 2005). The term soft power was first used by Joseph Nye in the late 1980s and is now used by all scholars and leaders in political science and business management and leadership. It refers to the ability to get what you want through attraction rather than coercion or payment. When you can get others to want what you want, you don't have to spend so much time, money, or effort to move them in your direction. Seduction is more powerful than coercion, and many values to be adopted as democracy, human rights, and individual opportunities are more deeply seductive (Diplo, 2014). In contrast, hard power is the ability to affect the behavior of others, but through approaches that induce and coerce people through the practice of hierarchical commands, autocracy, threats, and the like (Nye, 2006). Hard-power differs from soft power, and the distinction between them is stated as follows: hard-power (or command) and soft-power (or co-option) behaviors range along a spectrum from coercion to economic inducement to agenda-setting to the pure attraction (Nye, 2004). Experts and practitioners in business leadership refer to soft-power as a feminine style, by which leadership is more cooperative, participative, integrative and co-opts the behavior of followers, while hard-power is a patriarchal style, by which leadership is more assertive, competitive, autocratic and is focused on commands (Nye, 2006). Although the concept has been around for almost 20 years, the question arises of where leadership theory currently stands on the roles of soft-power and hard-power.

We may claim that Joseph Nye is the father of the soft-power concept since he created the term in 1991, and since the concept has become intellectualized and conceptualized, and the term is used in political science and business management. Nye (2004) looked at the power from different perspectives, and when he qualified power with the adjective of soft, he saw it as just like love – pliable, flexible, and yielding, and more prominent in practice and experience than in definition or measurement. On the macro or country level, Nye dealt with the concept of soft-power in a different context from the way power was used as hard, when leaders looked at themselves as more able to get their followers to do what they would not otherwise do and accomplish the end state of a job even if they did not have the means to do so. In this context, hard power was viewed by (Lukes, 2005) in three dimensions: behavior, decision-making and conflict; the non-decision-making process as the resistance to the decision; and the political agenda. Lukes (2011) viewed power as "the power to prevent people from having grievances by shaping their perceptions, cognitions, and preferences in such a way that they accept their roles in the existing order of things". In contrast, Nye looked at power as a reliance on the ability to shape and reform the preferences of followers to make them want what they have (Nye, 1990).

Other arguments related to smart-power have been brought to the debate that combines certain elements from hard-power and soft-power in a mutual enforcement to lead effectively and efficiently in a way that is more suitable in diplomatic, political, and relation-forging areas. According to Wilson III (2008), the interest in smart-power reflects two contemporary trends: structural and long-term; and conjunctural, which is driven mainly by the American Administration, since the American Administration is lacking in the use of smart-power, and countries around the world are using sophisticated types of diplomatic and political power.

5.1 Soft-power in Different Countries

The soft-power concept has become popular outside the US. China and Taiwan were the first countries to show an interest and to look at the concept differently. For example, Wang & Chung Lu (2008) found that soft power is seen in China as an intangible, non-quantifiable, non-material, or spiritual power. More specifically, they interpreted it as the ability to persuade others with reasons and to convince them with moral principles, equating soft power with the power of subduing enemies without fighting them. It was based on ancient Chinese philosophies and mainly relied on the historical notion of "doing it in a kingly way rather than in a bullying way", which means setting a moral example rather than doing things by brute force. In Taiwan, the interpretation of the concept of soft-power was different and was closer to the way Nye has looked at it and defined it. The Taiwanese have seen it as a leadership method that involves changing others' preferences through persuasion, and many have looked at it as co-optive power or as an ability to shape others. It is also defined as an umbrella concept that includes power elements rather than strengths and punitive sanctions, which enhance attractiveness. These elements include culture, political systems, and openness of the information society, education, ideology, and economic models, as well as the competitiveness.

The concept of soft power in Russia was different since culture and philology have played a big role in the definition of the concept. Dougherty (2013) has suggested that, while the Western concept of soft power is based on attraction, the Russian concept is based on projection, using some level of influence as structured instruments

of public diplomacy. This may be done through assisting in international development, providing international humanitarian cooperation, developing a network of Russian scientific and cultural centers abroad, and strengthening the Russian language. It also includes asserting the objectives of modern Russia and its material and spiritual potential, with the help of religious organizations and scientific, cultural, informational, and humanitarian areas. For the Russians to have a sound soft power concept of their own, and as the concept needs transparency and democratic measures to build its attractiveness internally and externally, they have to introduce new reforms of liberalization that focus on a liberal economy and a democratic political system (Karpowicz, 2012).

5.2 Soft-Power in Education:

When Nye (1990) emphasized soft power as the magic concept of attraction on all levels – political and diplomatic, as well as in leadership and management – he was trying to say that culture and values are the most important foundations on which to build the image that makes others want to do what you want, without making them do what you want. So education is considered to be the best tool for making others admire your way of doing things. Students from all over the world who have been educated in the US or in countries whose system of education is based on the American style of management would be the best way to attract and seduce people to apply the soft concept in other areas, whether that is politics, diplomacy, or foreign relations.

In his literature on the subject, Nye said that the main theme of soft-power to do the job in your way is invested or rested in its ability to shape the preferences of others. Even though soft-power embraces three dimensions – culture, political values, and foreign policy – the great benefit in education comes from the first dimension, which is culture, and its projection on educational programs at all levels. The information revolution that has taken place in education as well as the transition of curriculums across the world has done a tremendous job in enhancing soft-power.

China is making great efforts to promote its soft-power philosophy through educational programs and has emphasized that in its strategic plans. China is expanding rapidly in using English-taught university programs and is encouraging students from all over the world to study in China by offering accommodation and scholarships. The US and European countries are investing in their programs to encourage more students to study in China. Although the Chinese are trying to invest in their type of soft-power and promote it through education, the Chinese method of soft-power is not skillful.

Soft power in China is meant to be deployed by promoting the national interest using persuasion and attraction in their educational programs, which are introduced overseas in the form of high-profile programs, mainly in Latin America and Africa. Billions of dollars are spent on these programs. The spread of soft-power by the Chinese has been supported at the highest level. President Hu Jintao advanced the concept of soft-power in his speech at the 17th National Congress of the Communist Party of China.

China's higher education is shifting, widening, and diversifying along its Silk Road, and this is aligned with its new economic policy, which is aimed at innovating its large-scale manufacturing through the use of soft-power among neighboring countries as well as internationally (Marijk, 2016). Soft-power in the American version, as Nye stated, is always the ability to attract and co-opt, which has been adopted by the Chinese, but in addition to hard-power and the use of coercion as well as the use of money to attract others. This was carried on in serious discussion along with the Western concept of soft power (Shambaugh, 2013).

The EU also used soft-power with others for cooperative purposes. Science and technology were the basis of Europe's cooperation agreement with other countries to facilitate interactions with the rest of the world in all areas. The vehicle for this scientific cooperation was a seven-year framework program called Horizon 2020, which was developed by EU members and other selected countries (UNESCO, Media Services, 2017).

The UK has strengthened its efforts in using soft-power alongside hard-power to build positive cooperation with other countries around the world, as well as locally since society to some degree has become culturally diversified because of immigration. As a response to newly emerging challenges facing the UK, they considered soft-power to be a good tool for building cooperative bridges with other countries through establishing educational programs among young people in key countries to improve their employability, education, and skills, and thus their stake in society. So through soft-power, the UK's trade with others might be strengthened too. Therefore, as a method of future-proofing, the UK is intending to use soft-power alongside hard-power to build soft-power assets as a strategic priority (Dubber, 2015).

A study conducted by (O'Brien, 2011) to investigate the influence of the American Model of Management Education (AMME) on Indian MBA students in management programs in three domains: the private circle,

which illustrates the Western influence; the work environment, which shows the application of principles taught in business schools; and the classroom, which reflects the curriculum. The study found that the American model of education still dominates Indian MBA programs, but with some regional adaptation. The soft power of AMME remains dominant and expansionist, and one of the dominant elements of AMME is a new bipolarity between knowledge producer countries and knowledge users. Although the study found a dialectical tension between the European and the American models, in all three fields – private, enterprise, and school – the dominant influence was the AMME. Bieber & Martens (2011) concluded in their study that in Switzerland, PISA's platform for transnational communication enabled policy learning at the expert level, thus leading to a rather high degree of policy convergence, and it was not the same in the US, where PISA was regarded as one of many studies assessing the performance of the education system.

Since an instructor or teacher is meant to be the backbone of any educational program and the main bearer of responsibility for its success in reaching its objectives, he has to be a leader of his class. Team leaders, department chairs, associate leaders, and curriculum developers are also considered to be capable of enabling change among their students (Livingston, 1992). In this context, to be effective leaders in their careers, teachers have to have the skills of building trust in their students and developing support, diagnosing organizational conditions, dealing with the process, managing their work, and building skills and confidence in their students (Dimock & McGree, 2015). Therefore, teachers' or instructors' responsibility is to convert research into actions in class, support their colleagues and faculty, foster technology-based cooperation with students and faculty, and promote equality.

Due to the vast economic, political, and military changes that have taken place throughout the world, and because of the rise of the emerging BRICS countries, which formed serious competition to the US, decision-makers were forced to change the rules of the game. In this regard, Nye emphasized three pillars to rely on for the use of soft power: culture, political values, and foreign policy, and higher education (Nye, 2004).

6. Conceptual Framework of the Study

Consistent with the problem and purpose of the study and based on a review of the literature, the researcher has limited the research to the soft-power management concept and its main dimensions, based on Joseph Nye's classification of the soft-power concept. The researcher limited the scope of the study to the four principal dimensions and, where appropriates, their sub-dimensions, as follows:

1. Emotional intelligence: Self-awareness, social awareness.
2. Vision.
3. Rhetoric: (Ethos) personal and professional credibility. (Pathos) creating the right emotional environment. (Logos) argumentation.
4. Non-verbal communication: Body language, tonality, physical setting.

The design of the study has taken the form of association and effect (causal relationship) and variation in effect between the three independent variables – curriculum content, style of learning, and the way the program is managed and implemented – and the dependent variable, which is the conceptualization of soft-power leadership among students based on the four dimensions of the soft-power concept: emotional intelligence, vision, rhetoric, and non-verbal communication. The idea that stands behind this design is to explore the extent of belief and intellectual involvement in the soft-power management concept among students and the quality of graduate business programs in the Jordanian universities in forming such a concept. Some job-related and demographic variables are considered in the study to play the role of moderating variables to explore their effect on the assumed causal relationship. The moderating variables are the type of sector or industry (either private or public sector) that the student's job related to, the student's background in terms of their BA degree, and gender.

6.1 Model of the Study:
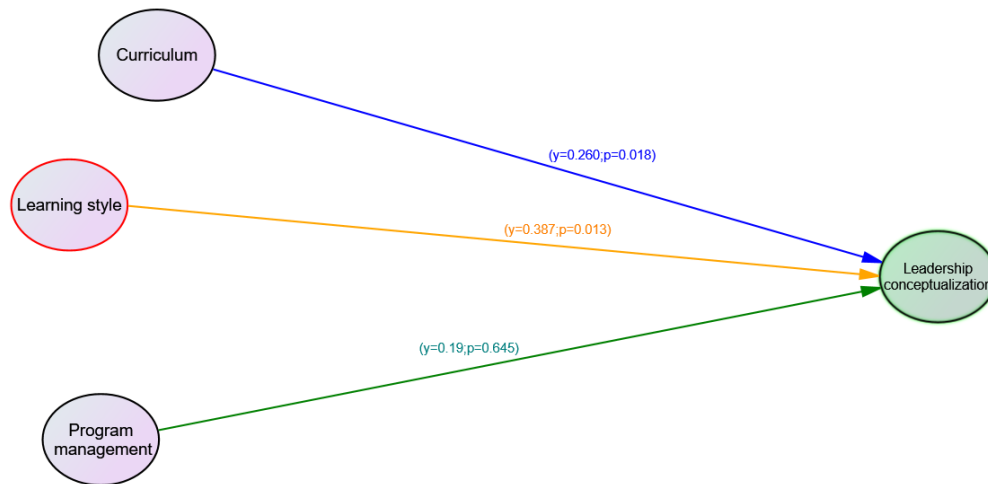
Figure 1. The Conceptual Model

6.2 Hypotheses of the Study

The following null hypotheses have been designed to investigate the effect of curriculum content, style of learning, and style of program management and implementation (which, for ease of reading, will sometimes be referred to as program management/implementation) on soft-power leadership conceptualization among MBA students in Jordanian universities:

H0 1: The independent variables curriculum content, learning style, and program management and implementation have no significant effects on the dependent variable soft-power leadership conceptualization among MBA students. This hypothesis is broken down into its minor hypotheses, as follows:

H0 1.1: There is no significant effect of curriculum content on soft-power leadership conceptualization among MBA students.

H0 1.2: There is no significant effect of learning style on soft-power leadership conceptualization among MBA students.

H0 1.3: There is no significant effect of program management and implementation on soft-power leadership conceptualization among MBA students.

H0 2: The moderating variable gender has no significant effect on the causal relationship between the independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable (soft-power leadership conceptualization among MBA students). This hypothesis is broken down into its minor hypotheses, as follows:

H0 2.1: There is no significant effect of gender on the causal relationship between curriculum content and soft-power leadership conceptualization among MBA students.

H0 2.2: There is no significant effect of gender on the causal relationship between learning style and soft-power leadership conceptualization among MBA students.

H0 2.3: There is no significant effect of gender on the causal relationship between program management/implementation and soft-power leadership conceptualization among MBA students.

H0 3: The moderating variable background education has no significant effect on the causal relationship between the independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable (soft-power leadership conceptualization among MBA students). This hypothesis is broken down into its minor hypotheses, as follows:

H0 3.1: There is no significant effect of background education on the causal relationship between curriculum content and soft-power leadership conceptualization among MBA students.

H0 3.2: There is no significant effect of background education on the causal relationship between learning style

and soft-power leadership conceptualization among MBA students.

H0 3.3: There is no significant effect of background education on the causal relationship between program management/implementation and soft-power leadership conceptualization among MBA students.

H0 4: The moderating variable work sector has no significant effect on the causal relationships between the independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable (soft-power leadership conceptualization among MBA students). This hypothesis is broken down into its minor hypotheses, as follows:

H0 4.1: There is no significant effect of the work sector on the causal relationship between curriculum content and soft-power leadership conceptualization among MBA students.

H0 4.2: There is no significant effect of the work sector on the causal relationship between learning style and soft-power leadership conceptualization among MBA students.

H0 4.3: There is no significant effect of the work sector on the causal relationship between program management/implementation and soft-power leadership conceptualization among MBA students.

6.3 Operational Definition of Variables

Soft-power leadership: This is the art of persuasion and personal magnetism, or the ability of the leader (in our case the college instructor) to influence his followers (students) by connecting with them physically, emotionally, and intellectually. In other words, it's the leader's charisma (Nye, 2006).

Curriculum content: This is the material used in class, such as textbooks, related reading, exercises, cases, and other requirements for the course, such as term papers, research, and projects.

Learning style: This is the style that instructors employ in their classes, including the proper use of emotional intelligence (self-awareness and social awareness), rhetoric, and verbal and non-verbal languages.

Program management and implementation: This is how the MBA program was designed by the department, including its vision, objectives, and philosophy; how the program is managed and implemented in terms of course availability and timing; and the sequence of courses and interdependency.

Emotional intelligence: This is divided into two dimensions: self-awareness, in which the leader (instructor) reflects on his emotional reactions in terms of self-management; and social awareness, in which he uses empathy in understanding followers' (students') emotional reactions in terms of their management.

Vision: This is the ability of the leader (instructor) to form and articulate an inspiring picture of the concept or subject of concern, as well as using the right plan and policy in his relationship with employees (students).

Rhetoric: This is the personal and professional ability of the leader (instructor) to persuade his followers (students) through the use of an emotional environment and argumentation in handling issues or topics.

Non-verbal communication: This is the leader's (instructor's) ability to use body language, in terms of facial expressions, eye contact, gestures, posture, and body movements; tonality, in terms of intonation, pitch, and tone of voice; and physical setting – or, as it's also called, the hidden message – which consists of non-verbal symbols, physical signs, and images.

7. Methodology of the Study

7.1 Type of the Study

Concerning the objectives and hypotheses of the study, the descriptive-analytical method was used to explore soft-power leadership conceptualization among the students of Jordanian universities based on the survey approach to investigate the attitudes and perceived understanding of the issue of the study.

7.2 Population and Sample of the Study

The population of the study was MBA students enrolled in Jordanian universities. The total number of Jordanian universities listed by the Ministry of Higher Education of Jordan was 30, which varied between small, medium, and large based on the number of students according to arbitrary regional measures. Since the total number of MBA students was too large to conduct the study for all universities, two universities were selected: the University of Jordan, the largest Jordanian university, which is located in the capital, Amman; and Mutah University, a midsized university located in the southern region of Jordan. These two universities are assumed by the researcher to be representative of all Jordanian universities, since no big variations exist between students in terms of culture, family education, or background, as, aside from a few students from the Gulf countries, almost all the students on the program were Jordanian citizens. Four hundred questionnaires were distributed randomly

by hand using a convenient sampling method to MBA students in the two universities, which was assumed to be sufficient to be representative of the population to be able to generalize the results and findings. Around 375 questionnaires were returned, 25 questionnaires were excluded, leaving 350 questionnaires that were complete and suitable for analysis.

7.3 Data Collection and Scaling

A multifactor questionnaire was developed by the researcher based on related literature using a five-point Likert-type scale because of its suitability for this type of study. The choices of answers were Very High, High, Average, Low, or Very low with weights of 5, 4, 3, 2, and 1 respectively. The questionnaire was divided into five parts. The first part is to investigate the demographic variables of the subjects in terms of gender, education background, and work sector. The second part was related to students' perceptions of soft-power leadership (as the dependent variable of the study) and how they conceptualize it in their work. Twelve questions were designed to answer this issue (from 1 to 12). The three remaining parts contained questions related to the independent variables, arranged as follows. The third part was about students' perceptions of the suitability of the content of the curriculum of the MBA program concerning the issue of the study. Thirteen questions were designed to answer this issue (from 13 to 25). The fourth part was about the style of learning in the program, and fifteen questions were designed to answer this issue (from 26 to 40). The fifth part was about the managerial style and suitability of how the MBA program is directed and implemented. Twelve questions were designed to answer this issue (from 41 to 52).

7.4 Validity and Reliability

Table 1. Construct Reliability for all Variables

Construct	Composite Reliability CR
D	0.837
C	0.850
L	0.874
P	0.891

D: Soft-power concept. C: Curriculum content. L: Learning style. P: Program management.

To ensure the validity and suitability of the questionnaire to the issue of the study, it was discussed with colleagues and specialists to confirm its adequacy in measuring the concepts.

A reliability test was carried out on the data to measure the stability and consistency of the items within the questionnaire.

A construct reliability test was run via composite reliability (CR) (Anderson & Garbing, 1988). As indicated in table 1, the extracted value of CR for all variables was above the minimum required level of 0.70. The values for the variables D, C, L, and P were 0.873, 0.850, 0.874, and 0.891 respectively. The results confirmed the suitability of the data for analysis since all values were above the minimum required values.

8. Descriptive Analysis and Results of Hypotheses Testing

8.1 Descriptive Analysis

Table 2. Percentage and Frequency of Demographic Variables

Gender			Educational background		Work sector		
Male		Female	Social science	Natural and applied science	Public		Private
155	47%	170 53%	126 39%	199 61%	136 42%	189	58%

As stated in table (2), in terms of their demographic variables, around 53% of the respondents were female students and 47% were males. Those who had studied for an undergraduate degree in natural and applied scientific specialties constituted around 61% compared to 39% who came from social sciences background. Concerning their work sector, 58% of the respondents were holding jobs in the private sector compared to 42% in the public sector.

Table 3. Descriptive Statistics of Variables

Variables	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Variance Statistic	Skewness Statistic	Std. Error
Soft power	325	1.50	5.00	3.8056	.02835	.51103	.261	−.314	.135
Curriculum	325	1.00	4.85	3.4774	.02983	.53784	.289	−.475	.135
Learning	325	1.36	5.00	3.5031	.03050	.54979	.302	−.072	.135
Program	325	1.50	5.00	3.4036	.03604	.64972	.422	−.212	.135
Valid (listwise)	N 325								

Table (3) illustrates the results of the descriptive statistics for the dependent variable soft-power leadership conceptualization among students and the independent variables curriculum content, learning style, and program management and implementation. The scores ranged between low (1.00) and high (5.00). The lowest was for curriculum content, and the highest was for the other two independent variables, learning style, and program implementation, as well as for soft-power leadership conceptualization. The highest positive mean score was for soft-power leadership (3.8056) and the lowest positive mean score was for program management and implementation (3.4036), which means subjects' answers for all variables were above average. This indicates that they are positive in their attitudes toward the way the MBA program is managed and implemented, as well as toward the way instructors are conducting the teaching process through the use of suitable curriculum content to enhance soft-power conceptualization among students.

8.2 Test of Hypotheses

Hypothesis H01: "The independent variables curriculum content, learning style, and program management and implementation have no significant effects on the dependent variable soft-power leadership conceptualization among MBA students."

AMOS 21 was used to calculate the correlation coefficients of the causal relationships between the three independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable (soft-power leadership among students) separately, to explore the extent and patterns of the relationships (Anderson & Gerbing, 1988; Byme, 2010; and Hair et al., 2010).

Table 4. Results of Standardized Estimates of Structural Model

Path	Path coefficients (R)	P- value	Significance [YES/NO]
C→D	0.260	0.018	YES
L→D	0.387	0.013	YES
P→D	0.19	0.645	NO

C: Curriculum > Soft-power. L: Learning > Soft power. P: Program > Soft power.

As a base concept of the model, the results in table (4) show that the R-values for the path coefficients were 0.260 (with a P-value of 0.018) for curriculum content with soft-power leadership, 0.387 (with a P-value of 0.013) for learning style, and 0.19 (with a P-value of 0.645) for program management and implementation.

Based on these results, hypothesis HO1/1 ("There is no significant effect of curriculum content on soft-power leadership conceptualization among MBA students") is rejected and the alternative hypothesis is accepted since the P-value of 0.018 was lower than the base decision of the value of Sigma P>0.05, which means there's a significant effect of curriculum content on soft-power leadership conceptualization among MBA students.

Referring to the same table and concerning the second minor hypothesis, HO1/2 ("There is no significant effect of learning style on soft-power leadership conceptualization among MBA students"), the hypothesis is also rejected and the alternative hypothesis is accepted since the P-value of 0.013 was lower than the base decision of Sigma, which means there is a significant effect of learning style on soft-power leadership conceptualization among MBA students.

As illustrated in the same table, the third minor hypothesis, HO1/3 ("There is no significant effect of program management and implementation on soft-power leadership conceptualization among MBA students"), is accepted, since the P-value of 0.645 is higher than the base decision of Sigma, which means there is no significant effect.

Hypothesis H02: "The moderating variable gender has no significant effect on the causal relationship between the independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable (soft-power leadership conceptualization among MBA students)."

Table 5. Results of Standardized Estimates

Hypothesized path	Male		Female	
	Standardized estimate	P-value	Standardized estimate	P-value
C→D	0.30	0.033	0.182	0.245
L→D	0.127	0.513	0.671	0.007
P→D	0.208	0.211	0.561	0.005

C: Curriculum content. L: Learning style. P: Program management. D: Soft power.

Tables (5) and (6) illustrate the results of the analysis concerning the minor hypotheses of this main hypothesis. Table 5 shows that the sample was divided into two categories – male and female – to examine the moderating effect of gender on the causal paths of the relationships between the three independent variables and the dependent one. The extracted coefficient values for the three paths were different for males and females. The effect of curriculum content on soft-power leadership conceptualization was significant (with a P-value of 0.033) among males but was not significant among females. In contrast, the effects of both learning style and program management/implementation on soft-power leadership conceptualization were not significant among males, but were significant among females (with P-values of 0.007 for learning style and 0.005 for program management and implementation).

This proves there is an effect as well as a difference in effect in the independent variables' relationships to the dependent variable that can be attributed to gender. An investigation was undertaken into the moderating effect of gender on the causal relationships between the independent variables and the dependent variable.

Table 6. Result of Moderating Effects of Gender (χ2 Difference Test)

	χ2	DF	Δ χ2	P-value
Unconstrained base model	4400.529	2536		
Constrained base model	4501.866	2587	101.337	0.000
Constrained paths				
C→D	4405.987	2530	5. 458	Non-significant
L→D	4425.147	2530	24.618	0.005
P→D	4412.358	2530	11.829	0.030

C: Curriculum. L: Learning. P: Program management. D: Soft power.

The χ2 of the unconstrained base model was compared with the χ2 of the constrained model. As shown in table 6, Δ χ2 value was 101.337, and the P-value (0.000) was significant. This means there is a difference between the two groups (males and females), which indicates a possible difference at the paths level. One path coefficient was constrained to be equal over the models of the two types (males and females), and the value of χ2 for the new model with the constrained path was then compared with the value of χ2 for the unconstrained base model (Wang & Shih, 2009, Taylor & Tadd, 1995).

Table 6 illustrates significances among males' and females' effect on the causal relationship between learning style and soft-power leadership conceptualization ($\Delta\chi^2$=24.618) at P-value <0.005. In addition, gender was found to have a significant moderating effect on the relationship between program management/implementation and soft-power conceptualization, with females having the strongest effect ($\Delta\chi^2$=11.829 at P-value <0.030). Meanwhile, there was no significant moderating effect attributed to differences in gender on the causal effect of curriculum content on soft-power leadership conceptualization (($\Delta\chi^2$=5. 458 at P-value <0.310).

Based on these results, it can be said that hypothesis HO2/1 ("There is no significant effect of gender on the causal relationship between curriculum content and soft-power leadership conceptualization among MBA students") is accepted, since the P-value was 0.310, which means there is no effect of gender on the causal relationship between curriculum content and soft-power leadership conceptualization. The results also indicated that the minor hypothesis HO2/2 ("There is no significant effect of gender on the causal relationship between

learning style and soft-power leadership conceptualization among MBA students") is rejected and the alternative hypothesis is accepted since the P-value was 0.005, and the hypothesis HO2/3 ("There is no significant effect of gender on the causal relationship between program management/implementation and soft-power leadership conceptualization among MBA students") is also rejected and the alternative hypothesis is accepted since the P-value was 0.030. This means that gender has a significant effect on the causal relationships between both learning style and soft-power leadership conceptualization, and program management/implementation and soft-power leadership conceptualization.

Hypothesis H03: "The moderating variable background education has no significant effect on the causal relationship between the independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable (soft-power leadership conceptualization among MBA students)." Analysis was conducted on the minor three hypotheses derived from this main hypothesis separately.

Table 7. Results of Standardized Estimates

	Social science		Natural science	
Hypothesized path	Standardized estimate	P-value	Standardized estimate	P-value
C→ D	0.084	0.608	0.405	0.021
L→ D	0.535	0.031	0.168	0.577
P→ D	0.187	0.285	0.098	0.684

Tables (7) and (8) illustrate the results of the analysis for the three minor hypotheses. Concerning the effect of background education on the causal relationships between the independent variables and the dependent variable, table (7) shows that the sample was divided into two categories: social sciences and natural sciences. The extracted coefficient values for the three paths of causal relationships were different for the two categories. These differences in the main predictors of D (C, L, and P) are attributed to the moderating variable educational background. The only significant effect was among natural sciences students, with a P-value of 0.021.

Table 8. Result of Moderating Effects of Educational Background ($\chi2$ Difference Test)

	$\chi2$	DF	$\Delta \chi2$	P-value
Unconstrained base model	4424.28	2536		
Constrained base model	4489.27	2587	64.99	0.005
Constrained paths				
C→ D	4435.578	2530	11.298	0.010
L→ D	4427.188	2530	2.908	0.125
P→ D	4434.987	2530	10.707	0.040

To investigate the moderating effect on the causal relationships between the independent variables and the dependent variable, further analysis was conducted. As shown in table 8, the $\Delta \chi2$ value was 64.99 and was significant at P level (0.005), which means there are significant differences between the educational background groups, and these predict significant differences at the path levels. One of the paths coefficients was constrained to be equal over the models of the two categories (social science and natural science), and the value of the $\chi2$ for the new model with the constrained path was then compared with the $\chi2$ value for the unconstrained base model (Wang & Shih, 2009, Taylor & Todd, 1995).

In the same table, the strongest effect of the educational background was in the path of C to D ($\Delta\chi^2$=11.298 at p<0.010). Educational background was also able to moderate the causal relationship between P and D, where the strongest effect was found to be in the case of social science background ($\Delta\chi^2$=10.707 at p<0.040). Meanwhile, there was no significant moderating effect of educational background on the causal relationship between L and D ($\Delta\chi^2$=2.908 at p<0.125).

Based on these results, hypothesis HO3/1 ("There is no significant effect of background education on the causal relationship between curriculum content and soft-power leadership conceptualization among MBA students") and hypothesis HO3/3 ("There is no significant effect of background education on the causal relationship between program management/implementation and soft-power leadership conceptualization among MBA students") are rejected and the alternative hypotheses are accepted since the P-values are 0.010 and 0.040

respectively. On the other hand, HO3/2 ("There is no significant effect of background education on the causal relationship between learning style and soft-power leadership conceptualization among MBA students") is accepted since the P-value is 0.125. This means that the causal relationships between the two independent variables curriculum content and program management/implementation and the dependent variable soft-power leadership conceptualization are affected significantly by the moderating variable background education, while there is no significant effect in the case of the third independent variable, learning style.

Hypothesis H04: "The moderating variable work sector has no significant effect on the causal relationships between the independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable (soft-power leadership conceptualization among MBA students)."

Analysis related to the minor hypotheses was conducted separately on the effect of the work sector on the causal relationship paths between the three independent variables (curriculum content, learning style, and program management and implementation) and the dependent variable soft-power leadership conceptualization. To examine the effect of the work sector on the causal paths, the sample was divided into two categories: the public sector and the private sector.

Table 9. Results of Standardized Estimates

	Public sector		Private sector	
Hypothesized path	Standardized estimate	P-value	Standardized estimate	P-value
C→ D	0.267	0.128	0.270	0.069
L→ D	0.349	0.105	0.382	0.079
P→ D	0.023	0.887	0.342	0.049

As shown in table (9), the extracted coefficient values for the paths between the independent variables (C, L, and P) and the dependent variable (D) were different for the public sector and the private sector.

This indicates that there would be differences in the three paths due to the moderating effect of the work sector since there is a different and significant effect among the private sector students (with a P-value of 0.049).

Further investigation indicated a moderating effect on the causal relationship between the C, L, and P predictors with D. However, the value of $\Delta \chi 2$ was 49.48 and the P-value (0.543) was not significant. This means there were no significant differences among the two categories of work sector. Differences could be found at the path levels, however. Therefore, one path coefficient was constrained to be equal over the models of the two groups (public sector and private sector), and the value of $\chi 2$ for the new model with the constrained path was compared with the value of $\chi 2$ for the unconstrained base model (Wang & Shih, 2009, Taylor & Todd, 1995).

Table 10. Results of Moderating Effects of Sector ($\chi 2$ Difference Test)

	$\chi 2$	DF	$\Delta \chi 2$	P-value
Unconstrained base model	4427.644	2536		
Constrained base model	4477.127	2587	49.483	0.543
Constrained paths				
C→ D	4430.570	2530	2.926	0.945
L→ D	4432.188	2530	4.544	0.850
P→ D	4442.221	2530	14.577	0.001

As shown in table (10), the most significant difference between the public sector and the private sector was in the effect of path P on D ($\Delta\chi^2$=14.577, p<0.001). There were no significant effects on the causal relationships between C and D ($\Delta\chi^2$=2.926, p<0.954) and L and D ($\Delta\chi2$=4.544, p<0.850) that could be attributed to the moderating variable work sector.

Based on the results, hypothesis HO4/1 (There is no significant effect of work sector on the causal relationship between curriculum content and soft-power leadership conceptualization among MBA

students) and hypothesis HO4/2 ("There is no significant effect of work sector on the causal relationship between learning style and soft-power leadership conceptualization among MBA students") are accepted, since the P-values were 0.950 and 0.850 respectively. Hypothesis HO4/3 was rejected and the alternative hypothesis

was accepted since the P-value was 0.001.

This means that the moderating variable work sector only affects the causal relationship between program management/implementation and soft-power leadership conceptualization, while there is no such significant effect in the case of the other two independent variables.

The results related to detailed analysis of the different items and areas of the questionnaire, which are shown in Appendix C, indicate that students' attitudes in general, were positive toward their intellectual involvement in soft-power conceptualization, which means they have expressed a good belief in the concept and its importance in management and leadership practices. For example, the highest scores went to question D4, which was related to the necessity of the leader to be effective and charismatic (with a mean of 3.94), and question D2, which was related to the relationship between intellectual stimulation and performance of employees (with a mean of 3.92). Questions D6 and D9, which were related to balancing the objectives and values of the organization with employees' capabilities to enhance productivity, and adjusting leadership style to followers' situations and needs to capitalize on followers' different resources, both have a mean of 3.89.

In the area of curriculum content, the highest mean score (3.73) was for question C11, which was related to the mix of lectures, textbooks, exams, term papers, and cases to build students' professional credibility, while the lowest mean score (3.33) was for C4, which was related to the ability of the faculty to deliver curriculums in a way that meets the objectives of the program. In the area of learning style, the highest mean score (3.69) was for item L13, which was related to the ability of the faculty to deliver course concepts and ideas credibly and in professional language, while the lowest mean score (3.21) was for item L12, which was related to the degree of class participation and argumentation.

Finally, in the area of program management and implementation, the highest mean score (3.56) was for item P6, which was related to the ability of the program to inspire the right vision to fit students' work environment, while the lowest mean score (3.38) was for item P1, which was related to the ability of the business department to manage the MBA program effectively.

9. Discussion, Conclusion, and Implications

9.1 Discussion and Conclusion

Based on the results and findings of the analysis, and referring to the problem of the study, the following conclusions may be drawn:

1. The percentage of females in the sample (53%) was larger than that of males (47%). Table 2 somehow projects the population distribution in most of the Jordanian universities in terms of gender since women for such cultural changes are more enthusiastic to university education, and this may be related to the megatrend that has taken place in Jordan socially and economically over the last fifteen to twenty years. 61% of the subjects came from an educational background of pure and applied sciences, such as chemistry, physics, math, engineering, medicine, and other natural sciences, while 39% were from a social sciences background. That indicates that most of the students on MBA programs in business schools are from a scientific background, perhaps due to the opportunity the program may provide to obtain a better job in management or management-related work. In terms of the work sector, the results were skewed toward the private sector (58%) rather than the public sector (42%). This might be attributed to the location of the University of Jordan in Amman, the capital, where most of the big private firms and businesses are located.

2. As an overall view of the results and findings of the study, subjects had a positive conceptualization of soft-power leadership and satisfactory belief in the concept in practice, since their grand mean score was 3.8056 (table 3). As far as the influence of such variables in forming soft-power conceptualization among students is concerned, the effects of curriculum content, learning style, and the way instructors conduct their classes, as well as the way the MBA program is managed and implemented by the business departments, were found to be of a satisfactory level, since the grand mean score for the three variables was 3.46 collectively.

Concerning the standardized effects of the three variables (curriculum content, learning style, and program management and implementation) on soft-power conceptualization, it may be concluded that learning style had the highest effect on soft-power leadership conceptualization, with a mean score of 3.5031, a statistical effect (P-value) of 0.013, and a path coefficient of 0.387. This indicates that students were positive when asked about the effect of learning style on their conceptualization, and shows that a suitable learning method was adopted by their instructors. Curriculum content had the second-highest effect, with a mean score of 3.4774, a statistical significance (P-value) of 0.018, and a path coefficient of 0.260. This indicates a satisfactory level of attitudes toward the content of curriculums in terms of the materials used in class and their suitability in building the

concept of soft-power leadership among students. Finally, program management and implementation had a positive mean score of 3.4036. This indicates that the program is managed and implemented at a satisfactory level, although this variable doesn't prove to be statistically significant in comparison to the other two variables. More efforts could be spent on this issue in the future. So in general it may be concluded that learning style and curriculum content do affect the soft-power conceptualization among MBA students, while the way the program is managed and implemented does not have that much of an effect.

This indicates that the American Model of Management Education (AMME) is to some degree applicable at a satisfactory level in the areas of curriculum content and material, and in the way, instructors are teaching their classes and interacting with students. The effect of program management and implementation on building up soft-power conceptualization among students was not significant; nevertheless, the result still shows that the American style of program management has a positive effect.

3. Concerning the effect of the moderating variable gender on the causal

relationship between curriculum content, style of learning, and program implementation, and soft-power conceptualization, it may be concluded that males were different from females in their response and attitudes, which means they look at the issue in different degrees. The results proved to be significant for two paths: learning style (P-value of 0.005) and program implementation (P-value of 0.030). This may be attributed to the variation in efforts made by the two groups in terms of class involvement and contribution, and following up with the business department for further acknowledgment about the program. No difference was found about the influence of gender on the causal relationship between curriculum content and soft-power conceptualization.

In terms of the effect of background education, it may be concluded that, based on their undergraduate education, students differed in the way they perceived the effect of curriculum content (P-value of 0.010) and how the program was managed (P-value of 0.040) on their soft-power conceptualization. This may be attributed to the big variation in the mentality of natural sciences and social sciences. No difference was found concerning the influence of educational background on the causal relationship between curriculum content and soft-power conceptualization.

Finally, the results indicate that students in the private sector and those in the public sector (P-value of 0.001) varied in the way they see the program is managed and implemented. This may also be attributed to the variation in mentality and experience among students since the private sector is way more advanced than the public sector when it comes to qualification and performance. In addition, there might be higher quality standards measurements among the private sector students. No difference was found concerning the influence of the respondent's work sector on the causal relationships between curriculum content and soft-power conceptualization or between the style of learning and soft-power conceptualization.

9.2 Practical and Theoretical Implications of the Study:

Based on the results and findings, the following practical and theoretical implications may be stated for the benefit of academic scholars and MBA program planners and directors, as well as faculties and administrators of business schools.

Since statistical analysis results for all variables are satisfactory, with mean scores above average based on a five-point Likert scale, all persons in charge may be advised to enhance the influence of the three independent variables in building soft-power conceptualization among graduate students, and in particular MBA students. To be more precise, implications and recommendations are as follows:

1. The results and findings indicated that the independent variables (curriculum content, style of learning, and style of program management and implementation) had a significant but not a large influence on the formation of soft-power conceptualization among students. This may be due to the absence of spiritual contact between students and instructors, and the absence of real engagement of students in the class environment, as well as the absence of a program coordinator or director. Anyway, more attention has to be given to how curriculums are designed and delivered to students, mainly about the quality of material given to students to meet their expectations, enrich their knowledge, and inspire future demand. The class environment can also be improved in terms of having a suitable size of the class, material requirements, and a positive relationship.

2. The style of teaching and the way curriculums and courses are delivered to students have to be more attention-grabbing, which is the responsibility of the person in charge of directing the program, and instructors have to be more enthusiastic in creating incentives and assigning convincing course work rewards and motivations. This will encourage and build up the skills and competencies that are needed for class contributions in discussion and argumentation.

3. Since the mean score for the effect of program management and implementation was the lowest among the independent variables, great attention has to be paid in this regard. In general, there is a need for proper evaluation of how the program is managed, the style of supervision and guidance of students, and the way curriculums are offered quantitatively and qualitatively. Revisiting the vision of the program is necessary to make sure that it is inspirational and fits the needs of the workplace in the Jordanian market. Students also need to be informed about the objectives, vision, and philosophy of the program.

4. Theoretically, the results of the study were to some degree compatible with the results of those studies conducted in different countries in terms of the domination of AMME. The results of the study were consistent with what O'Brien (2011) found in his study on Indian business students – that the American model still dominates Indian MBA programs, and that the soft power of AMME remains dominant and expansionist. The results were also consistent with the findings of Bieber and Martens (2011). Although a dialectical tension was found between the European and American models in the field of private enterprises and schools, AMME still had the most dominant influence.

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Appendixes

Appendix (A): Descriptive Analysis of the Questionnaire

Table (12) Descriptive Statistics

Questions	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Variance Statistic	Skewness Statistic	Std. Error
D1	325	1	5	3.82	.042	.758	.575	-.795	.135
D2	325	2	5	3.92	.044	.789	.623	-.312	.135
D3	325	1	5	3.83	.045	.806	.649	-.425	.135
D4	325	1	5	3.94	.050	.896	.802	-.507	.135
D5	325	1	5	3.80	.046	.828	.685	-.499	.135
D6	325	1	5	3.89	.046	.829	.688	-.634	.135
D7	325	1	5	3.72	.055	.989	.979	-.442	.135
D8	325	1	5	3.48	.044	.796	.633	.594	.135
D9	325	1	5	3.89	.048	.866	.751	-.678	.135
D10	325	1	5	3.75	.047	.840	.706	-.476	.135
D11	325	1	5	3.80	.050	.904	.817	-.547	.135
D12	325	1	5	3.83	.052	.941	.886	-.579	.135
C1	325	1	5	3.42	.054	.968	.936	-.299	.135
C2	325	1	5	3.40	.050	.899	.809	-.389	.135
C3	325	1	5	3.45	.051	.924	.853	-.356	.135
C4	325	1	5	3.33	.051	.919	.844	-.332	.135
C5	325	1	5	3.49	.048	.866	.751	-.373	.135
C6	325	1	5	3.51	.052	.932	.868	-.299	.135
C7	325	1	5	3.46	.050	.897	.804	-.279	.135
C8	325	1	5	3.55	.049	.889	.791	-.428	.135
C9	325	1	5	3.47	.054	.970	.941	-.366	.135
C10	325	1	5	3.33	.036	.652	.425	.956	.135
C11	325	1	5	3.73	.052	.942	.888	-.467	.135
C12	325	1	5	3.54	.048	.869	.756	-.450	.135
C13	325	1	5	3.53	.052	.941	.886	-.485	.135
L1	325	1	5	3.62	.051	.921	.849	-.450	.135
L2	325	1	5	3.58	.050	.894	.799	-.309	.135
L3	325	1	5	3.54	.048	.872	.761	-.292	.135
L4	325	1	5	3.61	.051	.916	.838	-.547	.135
L5	325	1	5	3.41	.053	.954	.910	-.306	.135
L6	325	1	5	3.46	.050	.908	.824	-.281	.135
L7	325	1	5	3.51	.046	.823	.677	-.319	.135
L8	325	1	5	3.57	.049	.892	.795	-.250	.135
L9	325	1	5	3.54	.050	.893	.798	-.174	.135
L10	325	1	5	3.45	.054	.979	.958	-.125	.135
L11	325	1	5	3.44	.055	.984	.969	-.321	.135
L12	325	1	5	3.21	.034	.609	.371	.840	.135

L13	325	1	5	3.69	.053	.951	.905	-.649	.135
L14	325	1	5	3.54	.050	.900	.811	-.444	.135
L15	325	1	5	3.55	.050	.893	.798	-.193	.135
P1	325	1	5	3.38	.056	1.001	1.003	-.218	.135
P2	325	1	5	3.42	.053	.948	.898	-.136	.135
P3	325	1	5	3.43	.051	.926	.857	-.160	.135
P4	325	1	5	3.36	.053	.963	.928	-.225	.135
P5	325	1	5	3.39	.051	.922	.849	-.250	.135
P6	325	1	5	3.56	.053	.956	.914	-.291	.135
P7	325	1	5	3.30	.054	.971	.943	-.336	.135
P8	325	1	5	3.35	.055	.988	.976	-.197	.135
P9	325	1	5	3.42	.052	.942	.887	-.419	.135
P10	325	1	5	3.43	.055	.990	.980	-.364	.135
P11	325	1	5	3.40	.051	.919	.845	-.269	.135
P12	325	1	5	3.41	.058	1.049	1.101	-.387	.135
Valid N (listwise)	325								

D: Soft power concept.   C: Curriculum content.   L: learning style.   P: Program management.

The Effects of Outbound Mergers and Acquisitions (M&As) on Chinese Automobile Corporations' Performance: A Case Study of Geely's Acquisition of Volvo

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Abstract

Pursuing M&As is an important growth strategy for many companies. This study examines whether Geely has succeeded in improving the acquirer's performance as expected over a long-time span. In particular, it: (i) assesses the short-term and long-term post-acquisition firm performance respectively; and (ii) establishes a post-acquisition performance evaluation framework for Chinese automobile companies' overseas M&As based on their motivations. By investigating the influence of acquiring Volvo on Geely's performance as a case of outbound M&A during the financial crisis, this research will serve as an example of evaluating M&As as a mechanism for corporate growth in the automobile industry of China or other emerging economies.

Keywords: corporate growth, emerging economies, Geely, mergers and acquisitions, performance evaluation

1. Introduction

Pursuing mergers and acquisitions (M&As) is an important growth strategy for many companies. The volume of global M&As after the 2008 financial crisis peaked in 2015 but experienced volatile decreases up to the present (J.P. Morgan 2019). Surviving well from the global financial crisis, China has been playing an increasingly active role in the global M&A market (Sun et al. 2012; Institute for Mergers, Acquisitions and Alliances 2019).

Notably, the success rate of Chinese outbound deals has not been satisfying so far. Chinese outbound M&As seemed to be slightly silent after 2016, with the volume falling year over year (J.P. Morgan 2020). Additionally, according to McKinsey & Company (2017), over the decade 2007-2017, about 60% of outward investments by Chinese businesses created little or no value for acquirers. Unlike multinationals in the US and major European countries, Chinese businesses are less experienced in M&A transactions, since experienced buyers usually create value and outperform occasional ones by a wide margin (BCG 2019).

Nevertheless, the young Chinese automaker Zhejiang Geely Holding Group's acquiring 100% stake of Swedish Volvo Cars from Ford for $1.8 billion in 2010 astonished the world instantly and was deemed to have created win-win outcomes for both companies successfully in a few years after the deal. Geely acquired the whole chain of Volvo, from research and development (R&D) to international supplier and marketing channels. Volvo also reported a first-time profit within one year of the deal, after three consecutive years' losses in the charge of Ford (Lai et al. 2013). Therefore, its strategic influence is quite remarkable among previous Chinese automotive cross-border acquisitions, such as Shanghai Automobile Industrial Corporation (SAIC) - Shuanglong (South Korea), SAIC/Nanjing Automobile Corporation - MG Rover (UK), and Beijing Automotive Industry Corporation - Saab (Sweden) (Huang 2009; Collinson 2013, Guo et al. 2017).

Given that it has been a whole decade since 2010 and most prior studies (Ma and Wu 2012; Lai et al. 2013; Ren 2013) were focused around two or three years after the deal, this study aims to fill in this gap by tracking the performance of Geely after the acquisition. The aim is to examine whether Geely has succeeded in improving the acquirer's performance as expected over a long-time span. In particular, this study aims to: (i) assess the short-term and long-term post-acquisition firm performance respectively; and (ii) establish a post-acquisition performance evaluation framework for Chinese automobile companies' overseas M&As based on their motivations.

To investigate the acquisition's influence on Geely's firm performance using the multidimensional evaluation framework, we have collected secondary data from three sources: annual reports, financial databases such as Bloomberg, and government websites. We found that the shareholder value decreased within the short term of the acquisition announcement, as the stock market did not respond positively in this stage. In the longer term, the acquisition of Volvo affected the profitability of Geely negatively in the first five years, but the situation reversed in recent years up to 2018.

We also found that the efficiency performance of Geely was susceptible to the vehicle demand apart from the pure managerial efficiency, and thus the acquisition's impact on it was not quite obvious. Geely managed well its long-term solvency after the acquisition despite taking over all of Volvo's debts through the acquisition. The innovative and internationalization performance of Geely was boosted significantly by acquiring Volvo, but the international presence weakened gradually in recent years. By investigating the influence of acquiring Volvo on Geely's performance as a case of outbound M&A during the financial crisis, this research will serve as an example of evaluating M&As as a mechanism for corporate growth in the automobile industry of China or other emerging economies.

2. Overview of Zhejiang Geely Holding Group

2.1 China's Automobile Industry

China's automobile industry was launched in the early 1950s, falling behind the world's car industry for over half a century. Under a planned economy, the central government determined the pattern of industrial development in China. Based on the production model of transplants from the former Soviet Union, three large state-owned enterprises (SOEs) were founded: First Auto Works (FAW), Dongfeng Motors (DFM), and SAIC (Balcet et al. 2017).

The development of the passenger car segment took place mainly after 1978 when China shifted towards a market economy through Chinese economic reform (Chu 2011). This transitional stage was featured by increasing foreign direct investments in China. Supported by the Chinese government, nearly all top 10 world automakers established joint ventures (such as SAIC Volkswagen and Changan Ford) with local SOEs.

Joining the World Trade Organization (WTO) in 2001 marked the third stage of China's automotive industry. Before this, private companies were not allowed to produce vehicles in China. It was during this period that Chinese automakers began to progressively catch up at an early stage of globalization (Balcet et al. 2017). In 2009, China overtook the US as the world's largest car market (Alon and Fetscherin 2011).

2.2 History of Geely

Geely was founded in 1986 by Li Shufu in Zhejiang Province, China, initially manufacturing refrigerator parts and motorcycles. To bring all Geely businesses into one group, Geely Group was established in 1996 and entered the automotive industry by setting up Geely Automobile Holdings Limited (Geely Auto) in 1997.

There have been three eras in the history of Geely. From 1997, Geely's vision in its 1.0 era was "producing cars that ordinary people can afford". In this stage, Geely started by producing low-end cars through reverse engineering, i.e. the process of imitating a product by disassembling its components and parts, analysing and reproducing them (Balcet et al. 2017), leading to the low cost and affordability of Geely cars. Geely Auto was granted a licence to produce vehicles in 2001 on the eve of China's entry into the WTO, becoming the first private automobile manufacturer in China.

As early as 2002, only one year after Geely being an official automaker, Li Shufu revealed his ambition by requesting his team to prepare to buy one of the international carmakers. In 2003, Zhejiang Geely Holding Group (Geely Holding) was established, with all of Geely's automotive businesses placed under it. Meanwhile, driven by fierce competition in the Chinese domestic market, Geely debuted in the export market as its first step in overseas expansion.

In 2005, Geely Auto was listed on the Hong Kong Stock Exchange. In 2006, Geely kicked off its first asset-seeking acquisition of a 19.97% stake in Manganese Bronze Holdings and established a joint venture to produce the iconic London taxi in Shanghai. In 2007, Geely announced its entry into its 2.0 era with a major strategic transformation from price to technology and performance competitive advantages, to narrow its gap with major automobile multinational corporations in terms of technology and product branding. Later in this year, Geely also announced its "Go Global" Globalization Strategy with a promise to make the "safest, eco-friendliest, most energy-efficient cars that can be driven all over the world."

In 2009 Geely acquired DSI, the world's second-largest maker of automatic transmissions. In 2010, Geely

completely acquired Volvo from Ford, becoming the Chinese first multinational automotive group. After three consecutive years' substantial losses, Volvo finally turned a profit in 2010 (Lai et al. 2013). Thanks to this deal, Geely Holding entered the Fortune 500 list in 2012 for the first time. In 2013, Geely completed the 100% acquisition of Manganese Bronze Holdings and its subsidiary London Taxi International and established China Euro Vehicle Technology (CEVT) R&D centre jointly with Volvo.

Geely announced its entry into its 3.0 era in 2014 with a new brand mission and value proposition focusing on "Making Refined Cars for Everyone." It also opened up a new strategy development pathway of new energy commercial vehicles in 2015 and announced the Blue Geely Initiative promising that 90% of its vehicles sold by 2020 would be using either hybrid or pure electric powertrains. In 2017, Geely bought a 49.9% stake in Malaysian automaker Proton, 51% control of luxury sports car brand Lotus, and Terrafugia Inc, a US flying-car developer.

In 2018, the ambitious company also acquired a 9.7% share of Daimler AG in pursuit of further partnership, becoming the single largest shareholder of Daimler AG. As of 2019, Geely ranked in 4th place by sales volume among the top 10 passenger vehicle manufacturers in China (see Figure 1). Its share of Chinese total export of passenger vehicles also increased from 3.7% in 2018 to 8.0% in 2019. In February 2020, Geely announced preliminary discussions with Volvo Cars AB, previously partially acquired in 2017, regarding a possible combination of the businesses of the two corporations into a strong global group (Geely Auto 2020; Zhejiang Geely Holding Group 2020).
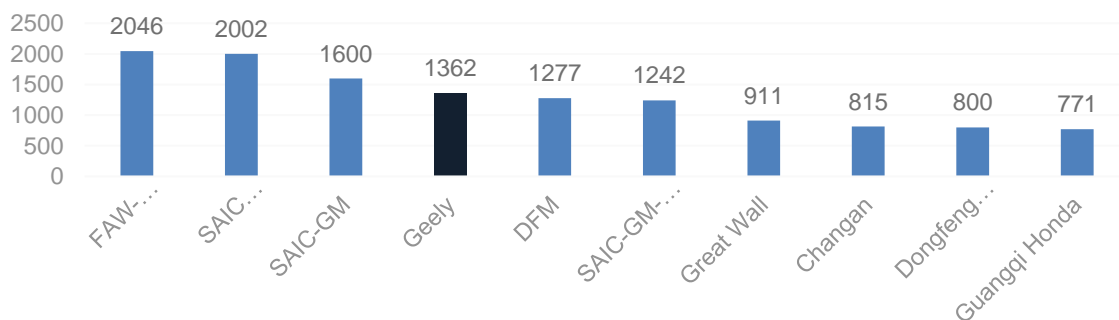
Figure 1. Top 10 passenger carmakers by sales volume in China, 2019 ('000 cars)

Source. China Association of Automobile Manufacturers (2020)

3. Relevant Literature

3.1 Waves and Types of M&As

Back in the 18th century, M&As originated in the US and started one century later in Europe (Focarelli et al., 2002). Unlike in the US and Europe, few M&A related pieces of research had been done before the last three decades in developing countries such as China, India, and Malaysia (Malik et al. 2014; Lebedev et al. 2015). In the literature (Lipton 2006; Roberts et al. 2010; Fuad and Gaur 2019), global M&As have been divided into five waves based on their types.

The first wave (approximately 1897-1903) predominantly involved horizontal acquisitions in the same sectors. Due to the completion of the national railroad system, the US companies were able to evolve into large integrated firms by virtue of the new national product market and prosperous stock exchanges (Banerjee and Eckard 1998).

With the widespread availability of bank loans and automobiles accelerating the integration, the second wave (approximately 1918-1929) was characterized by the significant growth of vertical mergers forward or backwards along the supply chains. The third wave (approximately 1955-1970) saw the large conglomerates seeking acquisitions of unrelated companies in unrelated industries.

Generally referred to as the mega-merger wave, the fourth wave (approximately 1980-1989) experienced an increase in hostile takeovers and corporate raiding by large companies. The fifth wave (approximately 1994 to present) was characterized by expanding cross-border transactions, fueled by economic globalization and

emerging technologies. It was during this period that Chinese automotive corporations' outbound M&As sprang up (Ma and Wu 2012).

3.2 Theories in Motivations of M&A

The literature elaborates on different rationales concerning motivations for M&As, including Transaction Cost Theory, Market Power theory, and Synergy theory. The study of Coase (1937) shows that lower transaction costs are regarded as the main M&A objective according to the Transaction Cost theory. The Market Power theory (Comanor 1967; Bessler and Murtagh 2002; Ongena and Penas 2009) stresses reducing competitors and achieving the market monopoly by horizontal and vertical M&A.

According to the Synergy theory, acquiring companies aim to optimize resource allocation on a global scale and improve the efficiency of both parties in three aspects: managerial, operational, and financial synergy (Trautwein 1990). Although the Synergy theory fits in most M&A cases, cross-border M&As springing up after the 2008 global financial crisis in developed countries by acquirers from emerging economies showed some unique motivations from those in previous M&A waves (Du et al. 2016).

Based on previous literature, market-seeking, strategic assets, and internationalization are the three main motives for Geely, typically in emerging market countries. Not driven by monopoly status, Chinese automobile companies are forced to expand the overseas market by harsh domestic competition. They also view M&A as a good way of avoiding trade barriers and rapidly entering the host countries for production and sales activities (Deng 2009).

Besides, the Chinese domestic market is the major goal of them, as China overtook the US to become the world's biggest auto market in 2009 (Alon and Fetscherin 2011). Since most competition in the Chinese auto market came from leading multinationals such as Audi, Mercedes-Benz, and BMW, Geely was keen to improve its competitive position and enter the domestic luxury car market by virtue of the Volvo brand.

In the automobile industry, strategic assets including intellectual property, brands, sales channels, and technologies (Deng 2009; Su and Liu 2013) are critical to the growth of firms. An important motive of acquiring Volvo is to obtain strategic assets including technology innovations, managerial capacity, human capital, and brand names (Yakob et al. 2018). Volvo's integrating safe and high technology into environmentally friendly cars fitted Geely's mission of producing the safest, most environmentally friendly, and most energy-efficient vehicles (Alon and Fetscherin 2011).

Another interesting motive of investing in developed countries by emerging economies is corporate internationalization (Sun et al. 2012). As part of China's "Go Global" strategy, Chinese automobile companies were driven to invest overseas to improve their international presence and competitive edge (Deng 2004; Du et al. 2016). Chinese government created incentives to accelerate consolidation in the vehicle industry and to support at least one Chinese vehicle manufacturer in becoming one of the global top ten automakers (Rakita and Markovic 2014). By acquiring the Volvo brand, Geely could save many years to internationalize itself (Chen and Liu 2011).

3.3 M&As and Firm Performance

The measures of M&As' effects on firm performance have varied in terms of short and long term, financial and non-financial, objective and subjective metrics. They include the event study, accounting-based measures, and management subjective assessments.

3.3.1 Event Study

A traditional study into the impact on the acquiring firm performance is the event study, first proposed by Fama et al. (1969). It assessed the outcomes of M&A by computing the daily abnormal returns caused by the unexpected event, assuming that stock prices react very quickly to new information if the market is efficient. Fama et al. examined the impacts of stock splits on share prices and provided the framework for future event studies and tests of semi-strong market efficiency.

Despite being the most widely used tool for studying M&As' effect, the event study has several limitations. Firstly, Sitthipongpanich (2011) concluded that in the circumstance of market inefficiency, the stock prices may not fully or immediately reflect all information. Secondly, unforeseen events could have a co-effect on the stock returns and thus abnormal returns are not entirely the direct market response to a specific event of interest. Thirdly, changes in investors' expectations reflected by stock prices observed in the event study may be biased due to subjective behavioural elements (Focarelli et al. 2002). Lastly, this method is proved to mainly work for the short-run stock price performance.

Having reviewed 87 research papers on M&A performance from top Management and Finance Journals, Zollo and Degenhard (2007) concluded that 41% used the short-term event study method, while only 16% used the long-term event study, as the stock value change is only significant over a short period around the M&A announcement date.

With the limitations of the event study, King et al. (2004) applied meta-analytic techniques to empirically evaluate the influence of the most commonly researched antecedent variables on M&A performance. The authors claimed that additional long-term post-acquisition performance researches were needed in addition to the event study to cast light on other dimensions of firm performance.

3.3.2 Accounting-based Measures

Another popular method is accounting-based measures, especially in M&A researches in emerging market economies (Krishnakumar and Sethi 2012). It evaluates the long-term organizational financial performance by comparing accounting data and ratios calculated from financial statements.

Major debates are surrounding the usefulness of accounting research on M&A performance. Stanton (1987) suspected the validity of accounting information as it is easily manipulated with accounting policies and earnings management. Sitthipongpanich (2011) argued that inaccuracies in financial statements might gain an inaccurate assessment of firm performance. Another difficulty lies in the combination of the parent and subsidiary companies' financial performance. In some cases, the target ceases to exist, while in other cases becomes a subsidiary of the acquirer. It is also uncertain whether the holding company is listed by itself or by a representative subsidiary within the group. This will increase the difficulty of evaluating the synergy effect of the group as a whole and comparing deals in the same industry.

Despite these limitations, many academics still adopt accounting information to assess the operational performance affected by takeovers. The figures presented in financial statements are usually deemed to be true and fair, especially for listed companies that are audited regularly. Tuch and O'Sullivan (2007) concluded the rationale of this method: for takeovers seeking growth instead of value, the final aim of earning a higher return on capital and any benefits arising from acquisitions will end in appearing in the accounting records.

The financial performance can be normally subdivided into profitability, efficiency and solvency. However, researchers have different preferences for their chosen indicators. Meeks (1977) found ROA is the best among these ratios to evaluate impacts of M&A, comparing profit margin, return on equity and return on assets (ROA). In the study of Barber and Lyon (1996), operating cash flows is regarded to be optimal in assessing firm performance after significant events including acquisitions, as earnings are easily manipulated.

In terms of the evaluation of Geely's post-acquisition performance, previous researchers (Lai et al. 2013; Ren 2013; Gao 2015; Feng and Liu 2016; Fan et al. 2018) dominantly used accounting-based measures such as profitability, solvency and operating capacity to assess the acquirer's financial situation, but few of them once used the event study to statistically examine the impact on the value of the firm.

3.3.3 Management Subjective Assessments

The management subjective assessments rate the extent to which M&As are able to realize business stakeholders' initial objectives several years after completing the transactions (Harvey 2015). Their preliminary objectives are described and quantified by financial and non-financial indicators. For Chinese outbound investments in developed countries, the acquirers normally have ambitions for operational expansion, brand image improvement, international brand awareness, managerial synergy, technological innovation capacity, and diversity of professionals (Shaker 2010; Alon and Fetscherin 2011; Chen and Liu 2011).

These non-financial purposes should also be comprehensively reflected by the indicators in the evaluation framework of the M&A success and the acquiring firms' performance. As there is hardly a consensus surrounding the definition and dimensions of firm performance, the performance measurement model is inevitably subjective (Santos and Brito 2012), especially in terms of non-financial measures. Namely, the management subjective measures might not reflect all key dimensions of post-acquisition performance or be entirely used in other cases with different M&A objectives.

Traditional firm performance measurement systems cannot be entirely employed for post-acquisition performance evaluation. The most popular among them is the balanced scorecard (Kaplan and Norton 1992) which emphasizes a balance between both financial and non-financial measures (including customer satisfaction, internal processes, and the organization's innovation and improvement activities) to achieve strategic alignment. It acted as a catalyst for further research on developing performance measurement systems (Bourne et al. 2000; Hudson et al. 2001; Santos and Brito 2012).

Neely et al. (1995) defined firm performance as a function of the efficiency and effectiveness of actions a business undertakes. According to this, they surveyed small and medium-sized manufacturing businesses in the UK and pointed out four categories of firm performance, i.e. quality, time, cost and flexibility, and their dimensions. However, individual performance measurement system designers tend to focus on different aspects of performance and the collection of dimensions.

Santos and Brito (2012) enriched the measurement model with seven financial and strategic indicators, including profitability, growth, market value, customers' satisfaction, employees' satisfaction, environmental performance, and social performance. The indicators of performance measurement system often vary with researchers. Although previous evaluation systems cannot be directly applied to the case in this study, their coverage of indicators is broad and inspiring for the design of M&A performance evaluation frameworks.

Among performance analyses of the Geely-Volvo case, Fan et al. (2018) overcame the limitation of predominantly using accounting-based measures by previous literature (Ren 2013; Gao 2015; Feng and Liu 2016) and established a two-tier evaluation framework to investigate Geely's firm performance from 2009 to 2016 in four aspects of acquisition objectives, including profitability, management efficiency, technological innovation and internationalization. They concluded that acquiring Volvo had significantly strengthened Geely's innovation capability but insignificantly improved profitability, efficiency and international presence. This research made important progress in incorporating subjective non-financial indicators but neglected the solvency of financial performance and might have missed more obvious performance trends in a longer period (Ren 2013).

In summary, Chinese automobile companies' outbound investments showed three main motives of market-seeking, strategic assets and internationalization. Surrounding the literature debates about measures of post-acquisition performance, a vast majority of researchers used the event study and a portfolio of accounting indicators. Some of them also included specialized non-financial indicators to measure the extent to which M&As had realized the acquirer management's preliminary objectives.

In the case of Geely, whilst it has been ten years since the announcement of Geely's acquisition of Volvo, there exist few studies tracing this event over a decade. Most performance analyzes were concentrated around two or three years after the acquisition. Ren (2013) suggested future research should be based on a long-time horizon to observe the case's long-term influence. Besides, many researches on the Geely-Volvo case did not use the traditional event study or introduce multidimensional non-financial indicators to evaluate the post-acquisition performance. Therefore, we will try to address these limitations by developing an evaluation framework incorporating the event study, selective financial and non-financial indicators to reflect the influence on the acquirer's short- and long-term performance in line with Geely's specific acquisition motives. To achieve this aim, our study sought to answer the following research questions:

1) How did the short-term shareholder value change around the acquisition announcement?

2) What was the long-term financial performance of the deal?

3) Did the long-term non-financial performance realize the acquisition motivations?

This case is expected to set an example of M&As in economic recession and provide experience for Chinese automobile businesses that aim to conduct cross-border M&A and accelerate global expansion in the future.

4. Method

4.1 Research Strategy

We have selected case study analysis as our research strategy. According to Yin (2018), a case study is an in-depth inquiry into a topic or phenomenon within its real-life setting. It has three advantages over other research strategies in achieving our research objectives and answering the research questions. Firstly, case study research is conducted within a certain real-life context, especially when the boundaries between phenomenon and context are not always apparent. Since performances of different M&A cases are susceptible to their specific participants and circumstances, understanding the context is fundamental to analyze in M&A researches. Secondly, interactions between a phenomenon and its context are best understood through in-depth case studies (Dubois and Gadde 2002), which allow a mixture of research methods, both qualitatively and quantitatively, to explore and interpret the effects of the situation and implications for action. Thirdly, a case study has the capacity of generating insights into a critical contemporary or historical event through in-depth and intensive research in its real-life settings (Paterson et al. 2016; Saunders et al. 2019).

The case of Geely is deemed to be a typical win-win transaction in the history of Chinese outbound M&As and global economic crises, and the strengths of the case study in answering "how" questions can provide an

in-depth understanding of the phenomena (Yin 2018). The conclusions to this case will be educational for future emerging economies' outbound investments in the automotive industry, especially during the ongoing global economic recession. In addition, as the effects of M&As on acquirers' firm performance are attributable to interactions of a number of variables, the case study should be used focusing on exploration and description with no single cause-effect link (WritePass 2017).

In the literature review section, we have reviewed three main post-acquisition performance measures and identified the gaps of evaluation methods in prior researches on the Geely-Volvo case. To address these gaps and achieve the first research objective, we will design a multidimensional performance evaluation framework consisting of the event study, accounting-based and management subjective assessment methods, based on a longitudinal time horizon.

4.2 Data Collection and Analysis

To answer our first research question (i.e. "How did the short-term shareholder value change around the acquisition announcement?"), we conducted the event study which requires a variety of data including the acquirer's daily stock prices around the announcement date, historical daily stock market indices and short-term government bond yield, to identify the event's direct effect on the stock market and analyze the deviation of shareholders' actual return from their expected normal return.

The data are secondary and were collected from major financial databases and government website (e.g. Bloomberg and U.S. Department of the Treasury). Bloomberg terminals available at Coventry University Business School's Trading Floor were used to provide reliable information including historical daily stock market indices and corporate stock prices (Coventry University 2020). As Geely Holding itself was not listed, we collected the daily stock prices of its listed subsidiary Geely Auto instead to reflect the stock market's expectation of the acquisition. The analysis of short-term stock price changes will be conducted using predefined Excel spreadsheet functions. In the event study, FTSE 100 index was selected to estimate the market return, and the 90-day US Treasury Bill rates were collected from the U.S. Department of the Treasury (2020) website to estimate the contemporary daily risk-free interest rate.

The event study is based on the market efficiency hypothesis that share prices react to new information in a timely and unbiased manner, representing the expected present value of future cash flows to shareholders (Tuch and O'Sullivan 2007). Usually, the announcement date is set as the event date; the normal returns are estimated by the Capital Asset Pricing Model (CAPM):

$$r_{i,t} - r_{f,t} = \alpha_i + \beta_i(r_{m,t} - r_{f,t}) + \varepsilon_{i,t} \tag{1}$$

Where,

$r_{i,t}$ = the return to stock i at time t

$r_{f,t}$ = risk-free rate at time t (i.e. short-term government bond yield)

$r_{m,t}$ = the return to the market (e.g. FSTE 100) at time t

α_i = intercept term

β_i = sensitivity of the return to stock i to market returns

$\varepsilon_{i,t}$ = zero mean disturbance term

A 120-day estimation period is chosen to calculate the expected returns, removing the effects before the announcement date. Afterwards, the abnormal return (AR), the difference between actual return and expected return estimated by the CAPM during the event window, is obtained as follows:

$$AR_i = (r_{i,t} - r_{f,t}) - [\alpha_i + \beta_i(r_{m,t} - r_{f,t})] \tag{2}$$

The cumulative abnormal return (CAR) is the sum of daily ARs during the event window, which is calculated by the following formula:

$$CAR_i = \sum_{t=1}^{n} AR_{i,t} \tag{3}$$

Where,

n = the number of days within the event window

The M&A effects will be ultimately measured by the deviation of AR from zero through the t-test and CAR. A positive deviation implies the M&A has a positive impact on corporate performance, while a negative deviation suggests the market's displeasure with the acquisition (Hitt et al. 1998; Bruner 2002).

To answer the second research question (i.e. "What was the long-term financial performance of the deal?"), we collected accounting data from the 2008-2019 annual reports of Geely Auto. The time horizon constitutes 2 years before and 9 years after the transaction to generate a comparison between the pre-acquisition and ex-post performance. The starting point 2008 was selected because it is the next year of Geely's announcing its entry into its 2.0 era with an increased focus on technology and quality, and its "Go Global" Globalization Strategy (Geely Auto 2020).

2008 is also a milestone year because on 1 July 2008 Geely Holding acquired the additional interests in its five major operating associates, allowing it to fully consolidate their financial results into the group's consolidated financial statements onwards. Consequently, we have excluded the distracting influence of other critical events in the history of Geely, such as going public in 2005 and establishing a joint venture with Manganese Bronze Holdings in 2006. We have also started from 2008 to ensure the year-on-year comparability. As Geely has always maintained the managerial autonomy of Volvo and did not plan a full merge until February 2020 (Zhejiang Geely Holding Group 2020), 2019 should be a proper end in our research into the current stage of Geely-Volvo acquisition performance.

Accounting-based measures were used to evaluate the long-term financial performance from three aspects, i.e. profitability, efficiency and solvency in accordance with the literature. Accounting-based measures are credible because financial statements are audited and widely used by investors for judging corporate performance (Bruner 2002). They reflect the real M&A impact on operating performance net of capital market inefficiency and mispricing bias (Krishnakumar and Sethi 2012). The analysis of accounting-based indicators will be basically through horizontal analysis method showing data changes over a longitudinal time horizon. The changing trends of these indicators will be visualized through charts and tables. Several accounting indicators (e.g. gross profit margin, operating margin, debt ratio) are calculated with the vertical analysis method, where line items on the income statement and balance sheet are expressed as a fraction of a base figure, normally total revenue or total assets, to compare companies of different sizes or performances of a single company over time (Jagels 2006; Ungureanu et al. 2013).

To answer the third research question (i.e. "Did the long-term non-financial performance realize the acquisition motivations?"), we collected non-financial data (e.g. annual transnationality indices) from the "Chinese Top 100 Transnational Corporations and Transnationality Indices" report. The report has been issued by China Enterprise Confederation and China Enterprise Directors Association for nine consecutive years. The Chinese top 100 transnational corporations are selected from all China headquartered non-financial enterprises registered and operated in more than one country, ranked by the scale of foreign assets.

Since the performance evaluation framework should be designed based on the motivations of the acquirer, there should be subjective indicators selected specifically for this case to assess the extent to which the performance outcome has realized the management expectations. Therefore, we will introduce R&D intensity and Transnationality Index (TNI) into the evaluation framework (see Table 1).

Table 1. Indicators of the evaluation performance framework

	Dimensions	Indicators
Financial performance	Stock price (short-term)	CAR
	Profitability	ROA
		Gross profit margin
		Operating margin
		Earnings per share (EPS)
	Efficiency	Asset turnover
		Inventory turnover
		Receivables turnover
	Solvency	Current ratio
		Quick ratio
		Debt ratio
Non-financial performance	Innovative performance	R&D intensity
	Brand internationalization	TNI

All ethical approvals have been obtained before conducting this research. With no primary data involved, the ethical considerations of our research have been focused on protecting research data from unauthorized access and unwanted loss, through appropriate data storage and data security strategies. To avoid the risk of storage on

external devices or online shared drives (Saunders et al. 2019), we have stored all our data through computer hard drives. According to UK Data Archive (2011), threats to digital data security may come from physical, network, and computer systems and files aspects. We have several corresponding strategies in place, including firewall, password protection of computer systems, controlled access to data files, and back-ups of important data on different media and locations.

5. Findings and Discussions

5.1 Short-term Shareholder Value Performance

In answering the first research question "How did the short-term shareholder value change around the acquisition announcement?", the event study was selected to reflect the market's expectations for the M&A success and the growth of shareholder wealth related to the acquisition (Perepeczo 2007). Normally, the M&A announcement day, 28 March 2010 (Geely Auto 2010), is set as the event date. However, since the stock was not traded on that day, the next trading day 29 March is set as the event date (i.e. time 0 in Table 3) instead. The event window is determined to be 20 before and after the event date. A 120-day estimation period has been selected to obtain the expected returns. In the estimation period, the intercept (α) and slope (β) of the CAPM are calculated to be 0.005910407 and 0.820432541.

Table 2 shows the calculations of Geely's and the market's excess returns in the CAPM, from the beginning of the estimation period to the end of the event window. The third column Pt of Table 2 is Geely Auto's stock prices. The daily risk-free interest rate (rf,t) is estimated from the 90-day US Treasury Bill annual rate divided by 365. Although Geely was listed on the Hong Kong Stock Exchange, it became a constituent of the Hang Seng Index from 13 February 2017. Thus, the FTSE 100 index is used to reflect the market share price instead.

Table 2. Calculations of the event study

Date	Time (t)	P_t (USD)	90 Day Treasury Bill rate (%)	Mktp (FTSE 100 Index)	R_i	$R_{f,t}$	$R_{m,t}$	$R_i - R_{f,t}$	$R_{m,t} - R_{f,t}$
04/09/2009	-141	0.23	0.14	4933.2					
08/09/2009	-140	0.28	0.14	4947.3	0.1967	3.83562E-06	0.0029	0.1967	0.0029
09/09/2009	-139	0.29	0.14	5004.3	0.0351	3.83562E-06	0.0115	0.0351	0.0115
10/09/2009	-138	0.28	0.14	4987.7	-0.0351	3.83562E-06	-0.0033	-0.0351	-0.0033
11/09/2009	-137	0.26	0.14	5011.5	-0.0741	3.83562E-06	0.0048	-0.0741	0.0048
14/09/2009	-136	0.25	0.14	5018.9	-0.0392	3.83562E-06	0.0015	-0.0392	0.0015
15/09/2009	-135	0.25	0.13	5042.1	0.0000	3.56164E-06	0.0046	0.0000	0.0046
16/09/2009	-134	0.25	0.10	5124.1	0.0000	2.73973E-06	0.0161	0.0000	0.0161
17/09/2009	-133	0.25	0.10	5164.0	0.0000	2.73973E-06	0.0078	0.0000	0.0078
18/09/2009	-132	0.25	0.08	5172.9	0.0000	2.19178E-06	0.0017	0.0000	0.0017
21/09/2009	-131	0.27	0.11	5134.4	0.0770	3.0137E-06	-0.0075	0.0770	-0.0075
22/09/2009	-130	0.37	0.11	5142.6	0.3151	3.0137E-06	0.0016	0.3151	0.0016
23/09/2009	-129	0.30	0.11	5139.4	-0.2097	3.0137E-06	-0.0006	-0.2097	-0.0006
24/09/2009	-128	0.33	0.10	5079.3	0.0953	2.73973E-06	-0.0118	0.0953	-0.0118
25/09/2009	-127	0.31	0.10	5082.2	-0.0625	2.73973E-06	0.0006	-0.0625	0.0006
28/09/2009	-126	0.28	0.11	5165.7	-0.1018	3.0137E-06	0.0163	-0.1018	0.0163
29/09/2009	-125	0.29	0.13	5159.7	0.0351	3.56164E-06	-0.0012	0.0351	-0.0012
30/09/2009	-124	0.29	0.14	5133.9	0.0000	3.83562E-06	-0.0050	0.0000	-0.0050
01/10/2009	-123	0.28	0.10	5047.8	-0.0351	2.73973E-06	-0.0169	-0.0351	-0.0169
02/10/2009	-122	0.28	0.10	4988.7	0.0000	2.73973E-06	-0.0118	0.0000	-0.0118
05/10/2009	-121	0.27	0.08	5024.3	-0.0364	2.19178E-06	0.0071	-0.0364	0.0071
06/10/2009	-120	0.33	0.08	5138.0	0.2007	2.19178E-06	0.0224	0.2007	0.0224
07/10/2009	-119	0.32	0.09	5108.9	-0.0308	2.46575E-06	-0.0057	-0.0308	-0.0057
08/10/2009	-118	0.31	0.06	5154.6	-0.0317	1.64384E-06	0.0089	-0.0318	0.0089
09/10/2009	-117	0.31	0.07	5161.9	0.0000	1.91781E-06	0.0014	0.0000	0.0014
12/10/2009	-116	0.31	0.07	5210.2	0.0000	1.91781E-06	0.0093	0.0000	0.0093
13/10/2009	-115	0.33	0.07	5154.1	0.0625	1.91781E-06	-0.0108	0.0625	-0.0108
14/10/2009	-114	0.34	0.07	5256.1	0.0299	1.91781E-06	0.0196	0.0299	0.0196
15/10/2009	-113	0.36	0.07	5223.0	0.0572	1.91781E-06	-0.0063	0.0572	-0.0063
16/10/2009	-112	0.36	0.07	5190.2	0.0000	1.91781E-06	-0.0063	0.0000	-0.0063
19/10/2009	-111	0.39	0.08	5281.5	0.0800	2.19178E-06	0.0174	0.0800	0.0174
20/10/2009	-110	0.38	0.08	5243.4	-0.0260	2.19178E-06	-0.0072	-0.0260	-0.0072
21/10/2009	-109	0.36	0.07	5257.9	-0.0541	1.91781E-06	0.0028	-0.0541	0.0028
22/10/2009	-108	0.35	0.06	5207.4	-0.0282	1.64384E-06	-0.0097	-0.0282	-0.0097
23/10/2009	-107	0.36	0.07	5242.6	0.0282	1.91781E-06	0.0067	0.0282	0.0067

26/10/2009	-106	0.35	0.08	5191.7	-0.0282	2.19178E-06	-0.0098	-0.0282	-0.0098
27/10/2009	-105	0.37	0.08	5201.0	0.0556	2.19178E-06	0.0018	0.0556	0.0018
28/10/2009	-104	0.38	0.07	5080.4	0.0267	1.91781E-06	-0.0235	0.0267	-0.0235
29/10/2009	-103	0.40	0.06	5137.7	0.0513	1.64384E-06	0.0112	0.0513	0.0112
30/10/2009	-102	0.37	0.05	5044.5	-0.0780	1.36986E-06	-0.0183	-0.0780	-0.0183
02/11/2009	-101	0.36	0.06	5104.5	-0.0274	1.64384E-06	0.0118	-0.0274	0.0118
03/11/2009	-100	0.36	0.06	5037.2	0.0000	1.64384E-06	-0.0133	0.0000	-0.0133
04/11/2009	-99	0.37	0.05	5107.9	0.0274	1.36986E-06	0.0139	0.0274	0.0139
05/11/2009	-98	0.39	0.04	5125.6	0.0526	1.09589E-06	0.0035	0.0526	0.0035
06/11/2009	-97	0.38	0.06	5142.7	-0.0260	1.64384E-06	0.0033	-0.0260	0.0033
09/11/2009	-96	0.39	0.07	5235.2	0.0260	1.91781E-06	0.0178	0.0260	0.0178
10/11/2009	-95	0.41	0.07	5230.5	0.0500	1.91781E-06	-0.0009	0.0500	-0.0009
11/11/2009	-94	0.44	0.07	5266.8	0.0706	1.91781E-06	0.0069	0.0706	0.0069
12/11/2009	-93	0.47	0.06	5276.5	0.0660	1.64384E-06	0.0018	0.0660	0.0018
13/11/2009	-92	0.47	0.07	5296.4	0.0000	1.91781E-06	0.0038	0.0000	0.0038
16/11/2009	-91	0.46	0.06	5382.7	-0.0215	1.64384E-06	0.0162	-0.0215	0.0162
17/11/2009	-90	0.47	0.04	5345.9	0.0215	1.09589E-06	-0.0069	0.0215	-0.0069
18/11/2009	-89	0.51	0.02	5342.1	0.0817	5.47945E-07	-0.0007	0.0817	-0.0007
19/11/2009	-88	0.47	0.02	5267.7	-0.0817	5.47945E-07	-0.0140	-0.0817	-0.0140
20/11/2009	-87	0.49	0.05	5251.4	0.0417	1.36986E-06	-0.0031	0.0417	-0.0031
23/11/2009	-86	0.50	0.05	5355.5	0.0202	1.36986E-06	0.0196	0.0202	0.0196
24/11/2009	-85	0.49	0.05	5324.0	-0.0202	1.36986E-06	-0.0059	-0.0202	-0.0059
25/11/2009	-84	0.49	0.03	5364.8	0.0000	8.21918E-07	0.0076	0.0000	0.0076
27/11/2009	-83	0.46	0.06	5245.7	-0.0632	1.64384E-06	-0.0225	-0.0632	-0.0225
30/11/2009	-82	0.51	0.06	5190.7	0.1032	1.64384E-06	-0.0105	0.1032	-0.0105
01/12/2009	-81	0.51	0.05	5312.2	0.0000	1.36986E-06	0.0231	0.0000	0.0231
02/12/2009	-80	0.55	0.06	5327.4	0.0755	1.64384E-06	0.0029	0.0755	0.0029
03/12/2009	-79	0.54	0.06	5313.0	-0.0183	1.64384E-06	-0.0027	-0.0184	-0.0027
04/12/2009	-78	0.53	0.04	5322.4	-0.0187	1.09589E-06	0.0018	-0.0187	0.0018
07/12/2009	-77	0.56	0.03	5310.7	0.0551	8.21918E-07	-0.0022	0.0551	-0.0022
08/12/2009	-76	0.59	0.03	5223.1	0.0522	8.21918E-07	-0.0166	0.0522	-0.0166
09/12/2009	-75	0.60	0.02	5203.9	0.0168	5.47945E-07	-0.0037	0.0168	-0.0037
10/12/2009	-74	0.57	0.03	5244.4	-0.0513	8.21918E-07	0.0078	-0.0513	0.0078
11/12/2009	-73	0.54	0.04	5261.6	-0.0541	1.09589E-06	0.0033	-0.0541	0.0033
14/12/2009	-72	0.57	0.05	5315.3	0.0541	1.36986E-06	0.0102	0.0541	0.0102
15/12/2009	-71	0.57	0.04	5285.8	0.0000	1.09589E-06	-0.0056	0.0000	-0.0056
16/12/2009	-70	0.57	0.04	5320.3	0.0000	1.09589E-06	0.0065	0.0000	0.0065
17/12/2009	-69	0.53	0.05	5217.6	-0.0728	1.36986E-06	-0.0195	-0.0728	-0.0195
18/12/2009	-68	0.50	0.08	5196.8	-0.0583	2.19178E-06	-0.0040	-0.0583	-0.0040
21/12/2009	-67	0.45	0.08	5294.0	-0.1054	2.19178E-06	0.0185	-0.1054	0.0185
22/12/2009	-66	0.49	0.07	5328.7	0.0852	1.91781E-06	0.0065	0.0852	0.0065
23/12/2009	-65	0.57	0.05	5372.4	0.1512	1.36986E-06	0.0082	0.1512	0.0082
24/12/2009	-64	0.56	0.11	5402.4	-0.0177	3.0137E-06	0.0056	-0.0177	0.0056
29/12/2009	-63	0.55	0.10	5437.6	-0.0180	2.73973E-06	0.0065	-0.0180	0.0065
30/12/2009	-62	0.54	0.05	5397.9	-0.0183	1.36986E-06	-0.0073	-0.0184	-0.0073
31/12/2009	-61	0.55	0.06	5412.9	0.0183	1.64384E-06	0.0028	0.0183	0.0028
04/01/2010	-60	0.55	0.08	5500.3	0.0000	2.19178E-06	0.0160	0.0000	0.0160
05/01/2010	-59	0.57	0.07	5522.5	0.0357	1.91781E-06	0.0040	0.0357	0.0040
06/01/2010	-58	0.57	0.06	5530.0	0.0000	1.64384E-06	0.0014	0.0000	0.0014
07/01/2010	-57	0.55	0.05	5526.7	-0.0357	1.36986E-06	-0.0006	-0.0357	-0.0006
08/01/2010	-56	0.54	0.05	5534.2	-0.0183	1.36986E-06	0.0014	-0.0184	0.0014
11/01/2010	-55	0.54	0.04	5538.1	0.0000	1.09589E-06	0.0007	0.0000	0.0007
12/01/2010	-54	0.53	0.05	5498.7	-0.0187	1.36986E-06	-0.0071	-0.0187	-0.0071
13/01/2010	-53	0.54	0.06	5473.5	0.0187	1.64384E-06	-0.0046	0.0187	-0.0046
14/01/2010	-52	0.53	0.05	5498.2	-0.0187	1.36986E-06	0.0045	-0.0187	0.0045
15/01/2010	-51	0.53	0.06	5455.4	0.0000	1.64384E-06	-0.0078	0.0000	-0.0078
18/01/2010	-50	0.51	0.06	5494.4	-0.0385	1.64384E-06	0.0071	-0.0385	0.0071
19/01/2010	-49	0.53	0.05	5513.1	0.0385	1.36986E-06	0.0034	0.0385	0.0034
20/01/2010	-48	0.52	0.06	5420.8	-0.0190	1.64384E-06	-0.0169	-0.0190	-0.0169
21/01/2010	-47	0.49	0.06	5335.1	-0.0594	1.64384E-06	-0.0159	-0.0594	-0.0159
22/01/2010	-46	0.47	0.06	5303.0	-0.0417	1.64384E-06	-0.0060	-0.0417	-0.0060
25/01/2010	-45	0.48	0.07	5260.3	0.0211	1.91781E-06	-0.0081	0.0211	-0.0081
26/01/2010	-44	0.45	0.08	5276.9	-0.0645	2.19178E-06	0.0032	-0.0645	0.0031
27/01/2010	-43	0.42	0.08	5217.5	-0.0690	2.19178E-06	-0.0113	-0.0690	-0.0113
28/01/2010	-42	0.45	0.08	5145.7	0.0690	2.19178E-06	-0.0139	0.0690	-0.0139
29/01/2010	-41	0.45	0.10	5188.5	0.0000	2.73973E-06	0.0083	0.0000	0.0083

Date									
01/02/2010	-40	0.45	0.10	5247.4	0.0000	2.73973E-06	0.0113	0.0000	0.0113
02/02/2010	-39	0.46	0.10	5283.3	0.0220	2.73973E-06	0.0068	0.0220	0.0068
03/02/2010	-38	0.48	0.09	5253.1	0.0426	2.46575E-06	-0.0057	0.0426	-0.0057
04/02/2010	-37	0.44	0.10	5139.3	-0.0870	2.73973E-06	-0.0219	-0.0870	-0.0219
05/02/2010	-36	0.43	0.12	5060.9	-0.0230	3.28767E-06	-0.0154	-0.0230	-0.0154
08/02/2010	-35	0.42	0.12	5092.3	-0.0235	3.28767E-06	0.0062	-0.0235	0.0062
09/02/2010	-34	0.40	0.11	5111.8	-0.0488	3.0137E-06	0.0038	-0.0488	0.0038
10/02/2010	-33	0.44	0.11	5132.0	0.0953	3.0137E-06	0.0039	0.0953	0.0039
11/02/2010	-32	0.47	0.10	5161.5	0.0660	2.73973E-06	0.0057	0.0660	0.0057
12/02/2010	-31	0.46	0.10	5142.5	-0.0215	2.73973E-06	-0.0037	-0.0215	-0.0037
15/02/2010	-30	0.47	0.10	5167.5	0.0215	2.73973E-06	0.0048	0.0215	0.0048
16/02/2010	-29	0.46	0.10	5244.1	-0.0215	2.73973E-06	0.0147	-0.0215	0.0147
17/02/2010	-28	0.47	0.11	5276.6	0.0215	3.0137E-06	0.0062	0.0215	0.0062
18/02/2010	-27	0.46	0.11	5325.1	-0.0215	3.0137E-06	0.0091	-0.0215	0.0091
19/02/2010	-26	0.45	0.12	5358.2	-0.0220	3.28767E-06	0.0062	-0.0220	0.0062
22/02/2010	-25	0.45	0.12	5352.1	0.0000	3.28767E-06	-0.0011	0.0000	-0.0011
23/02/2010	-24	0.47	0.13	5315.1	0.0435	3.56164E-06	-0.0069	0.0435	-0.0069
24/02/2010	-23	0.46	0.13	5342.9	-0.0215	3.56164E-06	0.0052	-0.0215	0.0052
25/02/2010	-22	0.50	0.13	5278.2	0.0834	3.56164E-06	-0.0122	0.0834	-0.0122
26/02/2010	-21	0.50	0.14	5354.5	0.0000	3.83562E-06	0.0144	0.0000	0.0143
01/03/2010	-20	0.51	0.14	5405.9	0.0198	3.83562E-06	0.0096	0.0198	0.0095
02/03/2010	-19	0.53	0.14	5484.1	0.0385	3.83562E-06	0.0144	0.0385	0.0144
03/03/2010	-18	0.51	0.15	5533.2	-0.0385	4.10959E-06	0.0089	-0.0385	0.0089
04/03/2010	-17	0.51	0.16	5527.2	0.0000	4.38356E-06	-0.0011	0.0000	-0.0011
05/03/2010	-16	0.52	0.16	5599.8	0.0194	4.38356E-06	0.0130	0.0194	0.0130
08/03/2010	-15	0.52	0.15	5606.7	0.0000	4.10959E-06	0.0012	0.0000	0.0012
09/03/2010	-14	0.52	0.16	5602.3	0.0000	4.38356E-06	-0.0008	0.0000	-0.0008
10/03/2010	-13	0.54	0.15	5640.6	0.0377	4.10959E-06	0.0068	0.0377	0.0068
11/03/2010	-12	0.54	0.17	5617.3	0.0000	4.65753E-06	-0.0041	0.0000	-0.0041
12/03/2010	-11	0.52	0.16	5625.6	-0.0377	4.38356E-06	0.0015	-0.0377	0.0015
15/03/2010	-10	0.53	0.15	5593.9	0.0190	4.10959E-06	-0.0057	0.0190	-0.0057
16/03/2010	-9	0.52	0.16	5620.4	-0.0190	4.38356E-06	0.0047	-0.0191	0.0047
17/03/2010	-8	0.53	0.16	5644.6	0.0190	4.38356E-06	0.0043	0.0190	0.0043
18/03/2010	-7	0.53	0.15	5642.6	0.0000	4.10959E-06	-0.0004	0.0000	-0.0004
19/03/2010	-6	0.52	0.14	5650.1	-0.0190	3.83562E-06	0.0013	-0.0191	0.0013
22/03/2010	-5	0.52	0.14	5644.5	0.0000	3.83562E-06	-0.0010	0.0000	-0.0010
23/03/2010	-4	0.53	0.14	5673.6	0.0190	3.83562E-06	0.0051	0.0190	0.0051
24/03/2010	-3	0.53	0.14	5677.9	0.0000	3.83562E-06	0.0008	0.0000	0.0008
25/03/2010	-2	0.53	0.15	5727.6	0.0000	4.10959E-06	0.0087	0.0000	0.0087
26/03/2010	-1	0.55	0.16	5703.0	0.0370	4.38356E-06	-0.0043	0.0370	-0.0043
29/03/2010	0	0.53	0.16	5710.7	-0.0370	4.38356E-06	0.0013	-0.0370	0.0013
30/03/2010	1	0.54	0.16	5672.3	0.0187	4.38356E-06	-0.0067	0.0187	-0.0068
31/03/2010	2	0.54	0.16	5679.6	0.0000	4.38356E-06	0.0013	0.0000	0.0013
01/04/2010	3	0.55	0.18	5744.9	0.0183	4.93151E-06	0.0114	0.0183	0.0114
06/04/2010	4	0.55	0.17	5780.4	0.0000	4.65753E-06	0.0062	0.0000	0.0062
07/04/2010	5	0.55	0.17	5762.1	0.0000	4.65753E-06	-0.0032	0.0000	-0.0032
08/04/2010	6	0.54	0.17	5712.7	-0.0183	4.65753E-06	-0.0086	-0.0184	-0.0086
09/04/2010	7	0.54	0.16	5771.0	0.0000	4.38356E-06	0.0102	0.0000	0.0101
12/04/2010	8	0.52	0.16	5777.6	-0.0377	4.38356E-06	0.0011	-0.0377	0.0011
13/04/2010	9	0.49	0.16	5761.7	-0.0594	4.38356E-06	-0.0028	-0.0594	-0.0028
14/04/2010	10	0.48	0.16	5796.3	-0.0206	4.38356E-06	0.0060	-0.0206	0.0060
15/04/2010	11	0.47	0.16	5825.0	-0.0211	4.38356E-06	0.0049	-0.0211	0.0049
16/04/2010	12	0.47	0.16	5744.0	0.0000	4.38356E-06	-0.0140	0.0000	-0.0140
19/04/2010	13	0.46	0.16	5727.9	-0.0215	4.38356E-06	-0.0028	-0.0215	-0.0028
20/04/2010	14	0.49	0.16	5783.7	0.0632	4.38356E-06	0.0097	0.0632	0.0097
21/04/2010	15	0.48	0.15	5723.4	-0.0206	4.10959E-06	-0.0105	-0.0206	-0.0105
22/04/2010	16	0.46	0.16	5665.3	-0.0426	4.38356E-06	-0.0102	-0.0426	-0.0102
23/04/2010	17	0.47	0.16	5723.6	0.0215	4.38356E-06	0.0102	0.0215	0.0102
26/04/2010	18	0.47	0.16	5753.9	0.0000	4.38356E-06	0.0053	0.0000	0.0053
27/04/2010	19	0.45	0.16	5603.5	-0.0435	4.38356E-06	-0.0265	-0.0435	-0.0265
28/04/2010	20	0.46	0.16	5586.6	0.0220	4.38356E-06	-0.0030	0.0220	-0.0030

We have depicted Figure 2 which shows that Geely's stock prices climbed slowly after the announcement date but experienced a significant drop from the 8th day until the end of the event window. The temporary slight increase in the share price before the announcement might indicate some abnormal trading in the acquiring firm'

s shares by anticipators or informed traders holding private information (Kedia and Zhou 2014; Mohil et al. 2020). Overall, the acquisition announcement had a positive impact on the acquirer's share price in a short term but did not stimulate the market to react dramatically. Investors tended to conservatively expect the performance of this event, with the stock price falling below $0.5 in only 9 days.
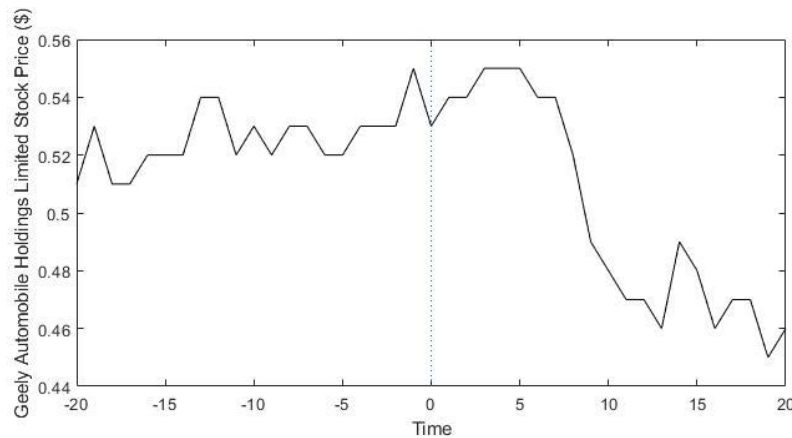

Figure 2. Geely's stock price changes

As shown in Table 3, which demonstrates the daily AR and CAR from -20 to 20 trading days around the event date and the t-test results of ARs, daily AR for Geely's shareholders floated up and down, with more negative ARs than positive ones. To present the aggregate impact on the AR, we created a graph of the CAR changing trend (see Figure 3). There were negative CARs from 10 days prior to the announcement, and much more significantly negative CARs after the announcement date. This indicated that the market was anticipating an event of which investors' anticipation negatively affected the shareholder's return, in accordance with the findings of Zhang (2017). The announcement date witnessed a comparatively greater AR of -4.41%; the t-statistic -0.6960 was also significantly different from zero (see Table 3), again suggesting the markets' passive reaction to this acquisition. To summarize, the shareholder value decreased in the short term, complying with Lebedev et al. (2015) who claimed that M&As often decrease the shareholder value of the acquiring firm in the short term. However, the long-term operating performance needs a longer time to inspect.

Table 3. Daily AR, t-statistic of AR, and CAR

| Time	AR	T-statistic	CAR	Time	AR	T-statistic	CAR
-20	0.61%	0.0956	0.61%	1	1.83%	0.2893	-10.04%
-19	2.08%	0.3281	2.68%	2	-0.70%	-0.1100	-10.74%
-18	-5.17%	-0.8165	-2.49%	3	0.31%	0.0483	-10.43%
-17	-0.50%	-0.0793	-2.99%	4	-1.10%	-0.1732	-11.53%
-16	0.28%	0.0442	-2.71%	5	-0.33%	-0.0523	-11.86%
-15	-0.69%	-0.1093	-3.40%	6	-1.72%	-0.2716	-13.58%
-14	-0.53%	-0.0832	-3.93%	7	-1.42%	-0.2250	-15.00%
-13	2.62%	0.4145	-1.30%	8	-4.46%	-0.7043	-19.46%
-12	-0.25%	-0.0397	-1.55%	9	-6.31%	-0.9963	-25.77%
-11	-4.49%	-0.7086	-6.04%	10	-3.14%	-0.4967	-28.91%
-10	1.78%	0.2807	-4.26%	11	-3.10%	-0.4899	-32.01%
-9	-2.88%	-0.4555	-7.15%	12	0.56%	0.0881	-31.46%
-8	0.96%	0.1518	-6.19%	13	-2.51%	-0.3967	-33.97%
-7	-0.56%	-0.0888	-6.75%	14	4.93%	0.7790	-29.04%
-6	-2.60%	-0.4115	-9.35%	15	-1.79%	-0.2832	-30.83%
-5	-0.51%	-0.0805	-9.86%	16	-4.01%	-0.6334	-34.84%
-4	0.89%	0.1409	-8.97%	17	0.72%	0.1137	-34.12%
-3	-0.65%	-0.1032	-9.62%	18	-1.02%	-0.1618	-35.14%
-2	-1.31%	-0.2063	-10.93%	19	-2.77%	-0.4370	-37.91%
-1	3.47%	0.5475	-7.46%	20	1.85%	0.2929	-36.06%
0	-4.41%	-0.6960	-11.87%				
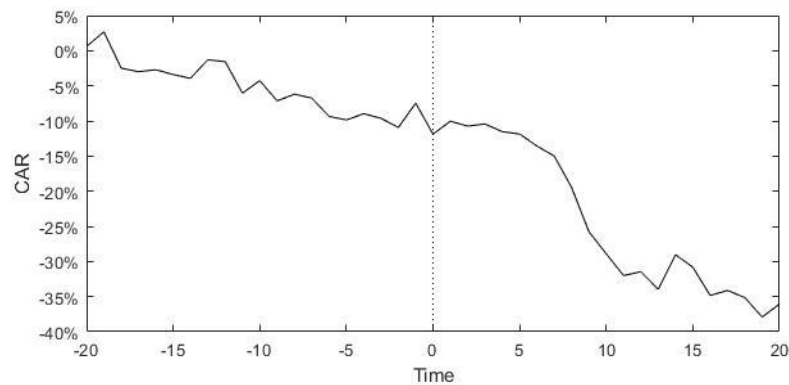
Figure 3. Trend in cumulative abnormal return (CAR)

5.2 Long-term Financial Performance

To answer the second research question "What was the long-term financial performance of the deal?", we evaluated the long-term financial performance of Geely by considering profitability, efficiency; and solvency.

5.2.1 Profitability

The sales volume of passenger vehicles fell by 10% in 2019, as a joint result of the deterioration of consumer confidence in China caused by economic uncertainties of the US-China trade dispute, the completed elimination of purchase tax subsidies for fuel-efficient vehicles, and the implementation of new emission standards by local governments in China. These external factors negatively affected Geely's profitability substantially this year. However, to investigate the effects of the case of acquiring Volvo, we should focus more on the years before 2019.

As the first layer of profitability, gross profit margin shows the profit potential of a firm before deducting miscellaneous selling, general, and administrative costs. Geely's gross profit margin increased generally stably until 2018, except in 2014, aligning with decreases of the other three ratios in the corresponding period. The fall in 2014 was primarily imputed to the 24% contemporary drop in sales revenue, resulting from the reshuffle of the group's sales and marketing system in China, and the deterioration of the political and economic environment in some major export countries. The gross profit margin shows Geely performed well in sales increase and had a health profit foundation of post-acquisition integration.

Unlike the stable gross profit margin, ROA and operating margin got even worse in four years after the acquisition but recovered gradually until 2018. We can see that the acquisition harmed the acquirer's profitability significantly in the following few years, as the ex-post integration of cross-border M&As was still a challenge for private acquirers. The target's financial problems could also offset part of the acquirer's profitability.

Nevertheless, the situation improved quickly after 2014, in which year Geely's cooperation with Volvo made remarkable progress in running a new independent R&D centre, CEVT in Sweden to deliver world-class product technologies and attributes, and facilitate considerable cost saving for both Volvo and the group. This reveals the financial benefits to Geely resulting from the synergy of technology and product quality in the long term.

We have illustrated the findings by designing Figure 4 to show that Geely's EPS climbed stably to ¥0.32 in 2013. Despite dropping to ¥0.16 affected by lower sales earnings in 2014, it rose exponentially after then, showing the positive side of this acquisition and strong profitability potential for investors.
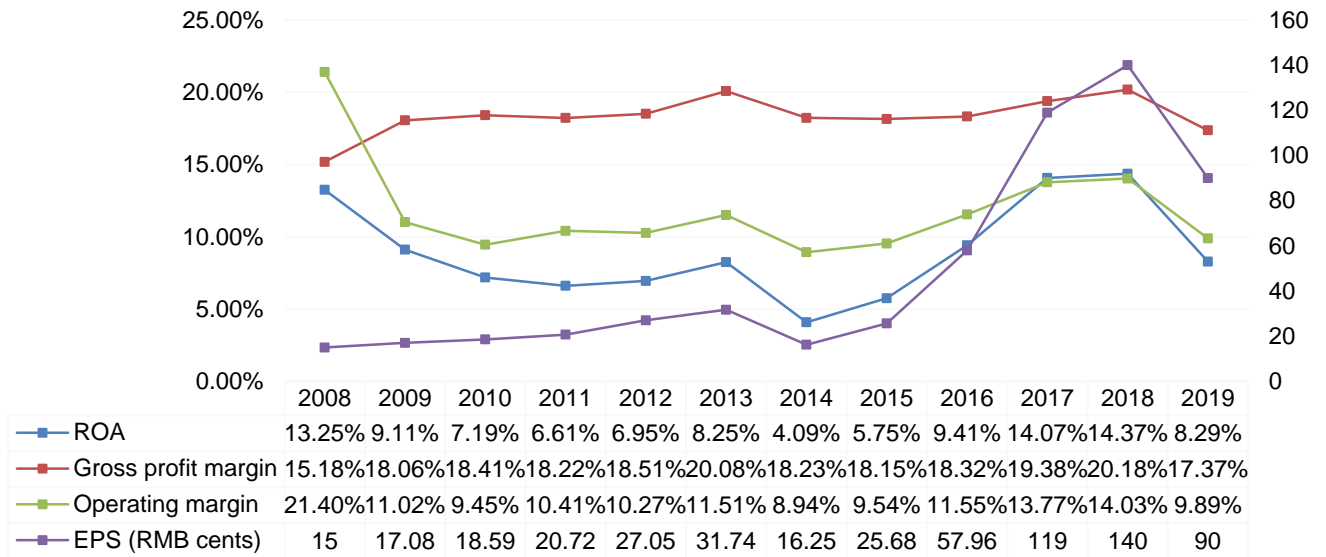
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
ROA	13.25%	9.11%	7.19%	6.61%	6.95%	8.25%	4.09%	5.75%	9.41%	14.07%	14.37%	8.29%
Gross profit margin	15.18%	18.06%	18.41%	18.22%	18.51%	20.08%	18.23%	18.15%	18.32%	19.38%	20.18%	17.37%
Operating margin	21.40%	11.02%	9.45%	10.41%	10.27%	11.51%	8.94%	9.54%	11.55%	13.77%	14.03%	9.89%
EPS (RMB cents)	15	17.08	18.59	20.72	27.05	31.74	16.25	25.68	57.96	119	140	90

Figure 4. Profitability ratios

5.2.2 Efficiency

The asset turnover ratio indicates the efficiency with which firms are using their assets to generate sales. As shown in Figure 5, Geely's asset turnover remained relatively stable below the industry average level until 2016 (IiMedia Research 2018) but rose to over 1.2 after 2017. This reveals Geely was able to improve the efficiency of utilizing assets internally and obtained from the target, which supported Feng and Liu (2016) in suggesting Geely had no over-expansion issues. As Volvo's financial data were not included in Geely's financial statements, the assets of Volvo would not affect the total assets of Geely, thus avoiding the abrupt volatility of asset turnover after the acquisition.

As credit sales account for the major part of automotive companies' current assets, the receivables turnover is critical for measuring the effectiveness of credit policies and collecting money from customers. The changing trend of receivables turnover was similar to that of asset turnover. Specifically, the receivables turnover fell relatively greatly in 2011, with the 23.22% increase in receivables being more than 4.31% increase in revenue compared with in 2010. This increase mainly came from the rising trade receivables from related companies controlled by the substantial shareholder of Geely, and the acquisition might also decrease the acquirer's ability to collect its accounts receivable to some degree. From 2014, however, the receivables turnover performed increasingly well, due to the significant increase in sales and cost of sales.

The inventory turnover is a comprehensive indicator of how efficiently a firm manages ordering, manufacturing and inventory levels. More importantly for car dealerships, it measures how rapidly they are selling the existing inventory of cars. Geely's inventory turnover experienced an annual decrease from 2010 and then peaked at 20.45 in 2016. The decreasing trend might imply either weak sales or overstocking, leading to lower liquidity and additional cost for storage. This disproved the findings of Lai et al. (2013) that Geely had appropriately dealt with the large pile of stocks resulting from the acquisition. The peak in 2016 was mostly due to the unexpected increase of revenue by 78.3%, as strong domestic sales volume growth in China overtook the weaker exports. Accordingly, Geely should be conscious of the insufficient inventory risk in the case of a high inventory turnover ratio.
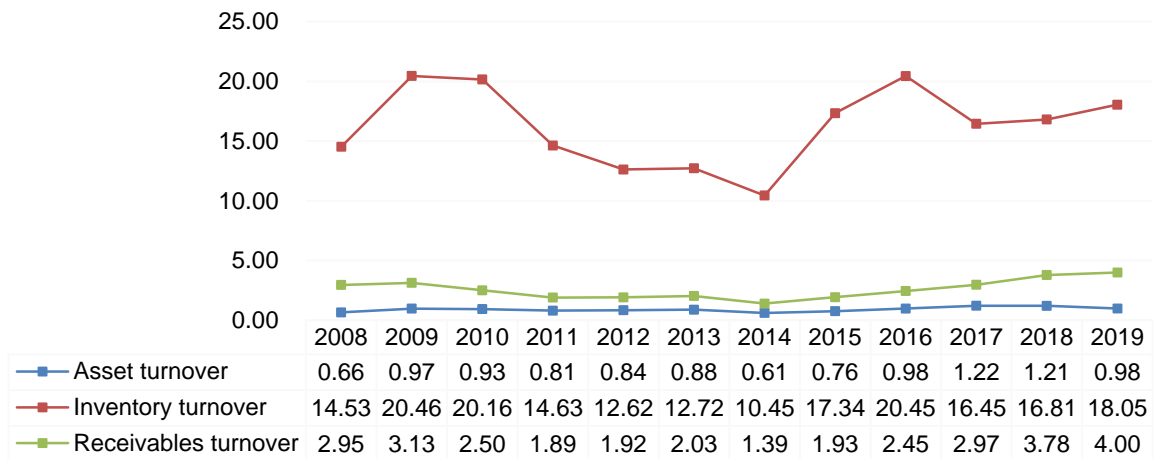
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Asset turnover	0.66	0.97	0.93	0.81	0.84	0.88	0.61	0.76	0.98	1.22	1.21	0.98
Inventory turnover	14.53	20.46	20.16	14.63	12.62	12.72	10.45	17.34	20.45	16.45	16.81	18.05
Receivables turnover	2.95	3.13	2.50	1.89	1.92	2.03	1.39	1.93	2.45	2.97	3.78	4.00

Figure 5. Efficiency ratios

5.2.3 Solvency

Given that Geely completed the acquisition of Volvo by bearing all of its debts which is one of the most critical risks for Chinese private acquirers (Feng and Liu 2016), the ability to meet its short- and long-term debts and financial obligations is essential for assessing the post-acquisition performance.

The changing trends of current and quick ratios were quite similar. They experienced an obvious drop by roughly 15-16% in the first year of acquisition, indicating the short-term solvency negatively affected by abruptly taking on all debts of Volvo through the acquisition. After three-year increases due to well digesting the target's assets, from 2015 however, the current and quick ratios fell continuously back to the initial levels preceding the acquisition year. This suggested the liquidity benefit of this acquisition had faded away.

The debt ratio is a good measure of a company's long-term solvency. As shown in Figure 6, this ratio decreased steadily after the end of 2011 to an appropriate range of 40-60% (Lai et al. 2013), indicating Geely had a greater portion of assets funded by equity rather than debt. In 2012-2013, for example, the decrease in debt ratio was mainly due to a combination of the full exercise of all warrants and the partial conversion of convertible bonds, and improved cash reserve for repayment of borrowings upon maturity. Therefore, Geely went smoothly in terms of managing credit financing after the acquisition.
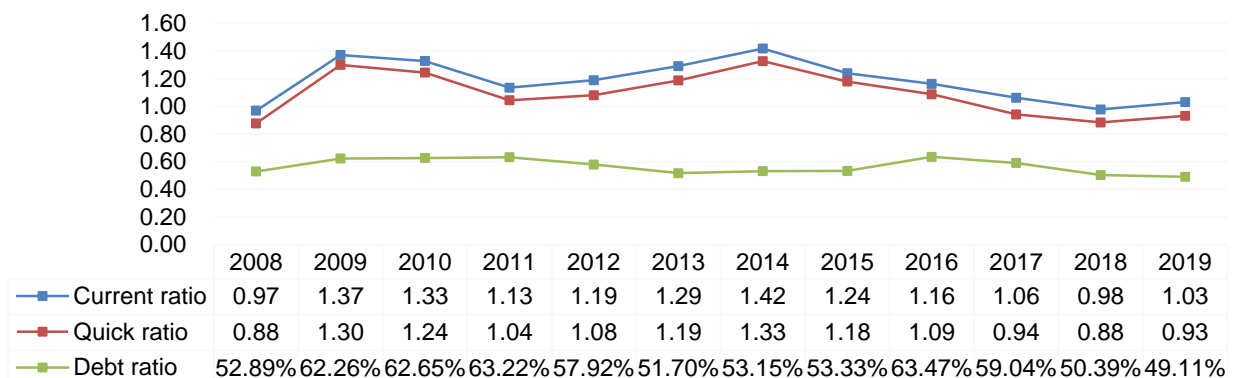
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Current ratio	0.97	1.37	1.33	1.13	1.19	1.29	1.42	1.24	1.16	1.06	0.98	1.03
Quick ratio	0.88	1.30	1.24	1.04	1.08	1.19	1.33	1.18	1.09	0.94	0.88	0.93
Debt ratio	52.89%	62.26%	62.65%	63.22%	57.92%	51.70%	53.15%	53.33%	63.47%	59.04%	50.39%	49.11%

Figure 6. Solvency ratios

5.3 Long-term Non-financial Performance

Our third research question is "Did the long-term non-financial performance realize the acquisition motivations?" In the light of Geely's acquisition motives (i.e. market-seeking, strategic assets, and internationalization) discussed before, we have divided its non-financial performance into innovative performance and brand

internationalization and will evaluate the acquisition's non-financial motivation achievements in these two aspects.

Accessing the competitive strength of technological innovation is one of the main motives for acquiring Volvo. The fast-changing automobile market also pushed Geely to continuously develop new products adopting advanced technologies to be competitive in terms of design, performance, and price. Therefore, the continued success of Geely, in turn, largely depends on its R&D capabilities.

In Figure 7, the absolute R&D costs showed an overall upward trend, disproving the findings of Hitt et al. (1998) that acquisition activities reduce a firm's commitment to continued R&D funding. The R&D intensity, which is calculated by dividing the total R&D costs charged to profit or loss by the total revenue, increased to 2.57% in 2015, meaning the R&D investment in every single unit of sales increased during this period due to the establishment of CEVT. This proves the findings of Liu and Zou (2008) that importing foreign technology and investing in domestic R&D positively influence domestic innovation. Despite dropping to 1.59% in 2017, the R&D intensity recovered quickly to 3.15% in 2019. This suggests that the strong R&D advantage brought about by the acquisition can diminish but Geely is increasingly seeking to strengthen its homegrown innovation capabilities in a long term.

Noticeably, the R&D intensity did not rise obviously in the first year of acquisition. This might be attributable to the delay of the technological cooperation with Volvo and the post-acquisition resource integration. Concurrently, it also concerns Geely that the R&D efforts probably could not be applied to products that will be accepted by the market or promptly to take advantage of the opportunities presented in the market.

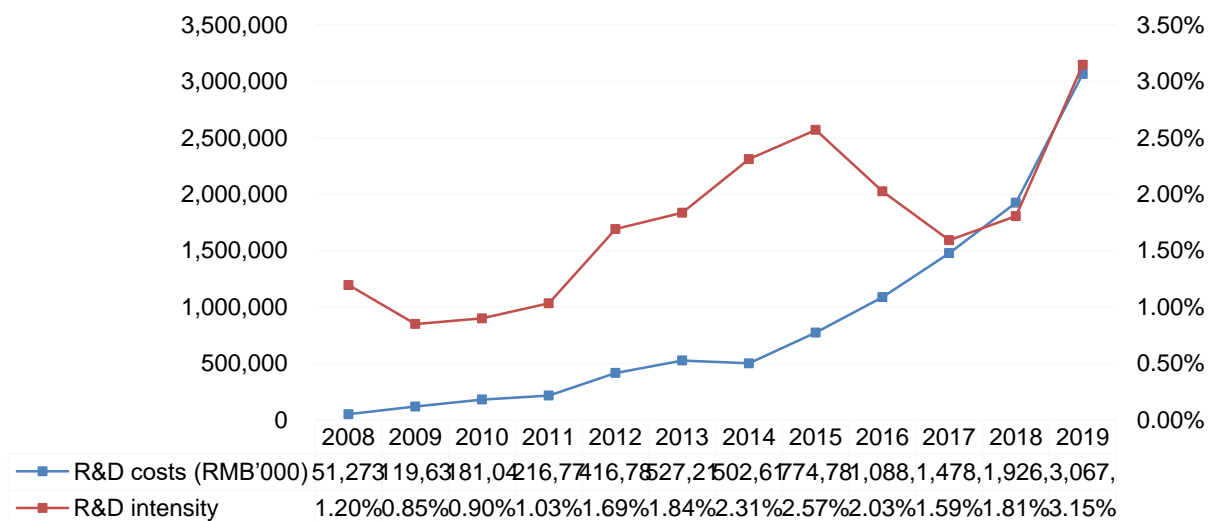|	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
R&D costs (RMB'000)	51,273	119,63	181,04	216,77	416,78	527,21	502,61	774,78	1,088,	1,478,	1,926,	3,067,
R&D intensity	1.20%	0.85%	0.90%	1.03%	1.69%	1.84%	2.31%	2.57%	2.03%	1.59%	1.81%	3.15%

Figure 7. Innovative performance

The extent that the Geely-Volvo acquisition has achieved its brand internationalization motivation is evaluated by the TNI, annually issued by China Enterprise Confederation and China Enterprise Directors Association from 2011. It is calculated as the arithmetic mean of three ratios of foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment, as developed by the United Nations Conference on Trade and Development. As the indicator was not available before 2011, we cannot compare the internationalization of Geely with its pre-acquisition performance.

As shown in Table 4, Geely outperformed a vast majority of Chinese corporations in internationalization, with the average TNI of those on the list being much lower than the average level (around 60-65%) of global top 100 transnational corporations. Geely's TNI had always ranked first between 2011 and 2016 but dropped to the fifth from 2018. Although its foreign assets and foreign sales increased quickly in recent three years (see Figure 8), they were not able to surpass those of other multinationals in the proportions to total amounts. Consequently, we can see that the internationalization benefit for Geely of acquiring Volvo maintained for quite a long time but weakened gradually with the strong growth of other domestic multinationals. While leading the international

presence of Chinese firms, Geely was simply equal or inferior to the average performance of global top 100 transnational corporations and could still improve its growth internationally.
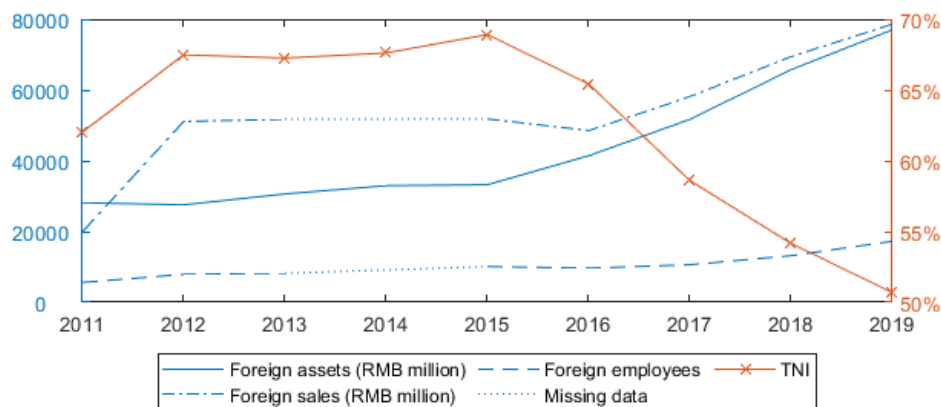

Figure 8. Brand internationalization

Table 4. Internationalization performance of Geely Holding

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Ranking on list	9	9	10	10	13	19	19	14	13
Foreign assets (RMB million)	70,332.8	68,852.4	76,565.1	82,395.7	83,050.9	103,503.9	129,202.9	164,290.8	192,505.2
Foreign sales (RMB million)	49,847.2	127,760.5	129,278.0	N/A	129,513.4	121,319.6	145,296.9	173,487.3	196,461.0
Foreign employees	14,042	19,800	20,530	N/A	25,260	24,112	26,546	32,932	43,107
TNI	62.03%	67.48%	67.25%	67.61%	68.91%	65.43%	58.60%	54.16%	50.69%
TNI ranking	1	1	1	1	1	1	4	5	5
Chinese top 100 average TNI	13.37%	12.93%	13.98%	13.60%	13.66%	14.40%	14.85%	15.80%	15.96%

In summary, the modest share price changes, negative AR and CAR indicated the market's passive reaction to the acquisition of Volvo which depressed the shareholder value in the short term of the announcement. The acquisition did not significantly increase the profitability of Geely within the first five years, but the situation reversed in recent years.

As the efficiency performance was susceptible to the external factor of vehicle demand apart from the pure managerial efficiency, the acquisition's impact on it was not that obvious. Although the liquidity benefit of this

acquisition had faded away, Geely managed well its long-term solvency after the acquisition despite taking over all of Volvo's debts through the acquisition.

In terms of the deal's non-financial achievements, Volvo did boost Geely's innovative capability and international presence substantially through technological partnership, expanded overseas market, and brand image influence. However, with the acquisition's effect diluted after 2015, the brand internationalization performance of Geely weakened in recent years.

6. Conclusion

This study aims at tracing the post-acquisition performance of the acquirer (Geely) to examine whether this astonishing deal at that time succeeded in improving the buying group's performance as expected over a long-time span. In particular, it develops a post-acquisition performance evaluation framework for the Chinese automobile industry's overseas M&As; and assesses the short-term and long-term post-acquisition firm performance respectively.

We found that the modest share price changes, negative AR and CAR indicated the acquisition did not significantly increase the shareholder value. However, the short-term stock price changes cannot reflect the acquisition synergy impact on firm performance.

In terms of the long-term financial performance, the acquisition of Volvo did not bring much profitability to Geely instantly in the first five years, after which, however, the profitability of the group improved more quickly than before. Geely compromised some operating and net profits initially to strive for resource integration with Volvo, while the profitability of its main business activities was not largely affected due to the steady gross profit margin. The EPS grew quickly after 2015, indicating that the acquisition was rewarding for shareholders especially when the synergy effect started paying off.

Besides, the acquisition had a slightly negative impact on the acquirer's operating efficiency in the short term but recovered gradually later on. Geely should particularly focus on monitoring the volatile inventory turnover level to improve the efficiency of the group. The acquisition also did not bring many benefits to the short-term liquidity of Geely, while the long-term solvency performance of Geely remained relatively healthy after the acquisition. Geely still has room to improve its liquidity by managing the working capital.

Regarding the long-term non-financial performance, there was a one-year delay in huge improvements of R&D in proportion to sales. This means the technological cooperation with Volvo needed some time to take actions such as establishing R&D centres. Although the R&D intensity experienced a two-year fall from 2016 to 2017, it increased quickly in general with the annual R&D costs, revealing that Geely was seeking to generate its homegrown sustainable innovation capabilities apart from the support from Volvo.

As the Transnationality Index was not released before 2011, we cannot compare Geely's pre-acquisition internationalization with its current performance. Nevertheless, according to the available data, Geely performed well in the five years after the acquisition, but its international presence became decreasingly competitive in recent years. Therefore, Geely has to seek its international expansion more independently.

Our main contribution is that we have designed an evaluation framework aligning with the acquirer's multidimensional acquisition motives. The framework consists of the traditional event study and accounting-based measures that are most widely adopted in the M&A-related literature. Additionally, the framework also introduces two non-financial branches of the acquisition performance and corresponding indicators, in terms of innovation performance and brand internationalization. All of the above make this study among the few pieces of research integrating both the event study and non-financial indicators into the mainstream accounting-based analysis by Chinese domestic researchers of post-acquisition performance in the Geely-Volvo case. The case of Geely is expected to set an example of M&As in the ongoing economic recession and provide experience for Chinese private automobile enterprises that seek cross-border M&As and accelerate global expansion in the future.

Like any other studies, our study has limitations. The consolidated annual reports of the acquirer Geely Holding were not available. This increased the difficulty of evaluating the overall synergy effects after acquisition. However, this was overcome to a large extent by using the annual reports of its listed subsidiary, Geely Auto's annual reports instead to reflect the synergy benefits, as Geely Auto contains the acquirer group's only three auto brands (i.e. Geely Auto, Lynk & Co, and Geometry) that are developed independently or jointly with Volvo. In other words, the other auto brands within the group were obtained by acquisitions. Therefore, the acquirer's listed entity, Geely Auto, could be most directly affected by the acquisition in our case study, in terms of for example sales, R&D, and brand internationalization.

Additionally, our study focused only on one single case of a Chinese automobile company acquiring another Swedish car manufacturer. The case study strategy determines the limitation that the findings and experience in this study might not be generalized to all Chinese automobile enterprises' cross-border M&As.

Future studies should replicate and extend this study to include other cases of automobile enterprises in China and/or other emerging markets. Future studies should also use patenting frequency, which refers to the number of newly granted patents per year (Granstrand and Holgersson 2012), to evaluate the innovation performance in technology-motivated M&As.

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Towards a Generic Model of Human Resource Management

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Abstract

This theoretical basic research paper was written in order to accomplish three research objectives: (1) to perform a brief description of selected popular models of Human Resource Management (HRM) developed by various scholars or authors; (2) to revisit and review the model of HRM developed by me in 2009; and (3) to introduce a generic model of HRM with an adequate theoretical base. It revealed that at least five popular models exist in the literature of HRM and they were briefly reviewed. The relevant review done with regard to the model developed locally as the first model of HRM in 2009 revealed that it is an internally focused but comprehensive and distinct model with a necessity of incorporating forces which exist in internal and external environments. Finally, a generic model of HRM which is composed of seven interrelated components such as internal environment, external environment, HRM fields and functions, HRM outcomes, organizational outcomes, HRM academic and professional factor, and feedback through evaluation was developed and presented by using several common theories, perspectives, arguments and logical beliefs. Hopefully the generic model will be a significant value addition to the existing local as well as international body of knowledge of HRM which is a highly recognized academic discipline and an established practice.

Keywords: human resource management, HRM model, generic model

1. Introduction

I (the author of this paper) originated a simple but distinct definition of HRM in 2009 (first it was published in 1995 in Singhala language) and it is: *"HRM is the effective and efficient utilization of human resources to achieve goals of an organization"*. Viewing from 12 definitions given by various authors 10 common characteristics of HRM were identified and they are: (*1) HRM fucuses on managing people; (2) it is managing people at work or employees who make up an organization; (3) it exists within an organization; (4) it generally attempts to serve for the organization where it is practiced, employees working for it and society at large; (5) it is the human side of Business Administration; (6) it is a traditional functional field of Business Administration; (7) it was traditionally termed as Personnel or Personnel Management; (8) it has a set of activities that focuses on effective use of employees for the accomplishment of organizational goals; (9) it is mainly concerned with human relationships within an organization; and (10) it has policies, practices and systems influencing employees* (Opatha, 2009).

HRM is a recognized academic discipline as well as a recognized profession in Sri Lanka and in the world too. It provides many solutions to create and enhance success and progress of success of organizations; and it is the field that is concerned with improving the standards of living of people at work (Opatha, 2019[1]). Opatha (2009) presents five reasons of why HRM is of very importance for an organization. They are: (1) Human resources are the most important resource that managers utilize to achieve goals of an organization; (2) Quality of other functional fields of management heavily depends on quality of HRM in an organization; (3) HRM is a vital responsibility of every manager in an organization; (3) HRM contributes to organizational success and then societal success; and (5) Management of employees is more difficult than managing other resources. A comprehensive study based on a content analysis of 30 textbooks with regard to the case for teaching HRM in management education done by Opatha (2019[2]) revealed 13 common reasons which underline how much HRM is important to us. These thirteen common reasons in the order of importance are: (1) Organizational success; (2) Sustainable competitive advantage and organizational improvement; (3) Every manager's vital responsibility and contribution to societal success (two reasons); (4) Enhancing professional life success; (5) Enhancing personal

life success; (6) Enhancing quality of organizational life for employees, uniqueness of human resources, and contribution to the natural environment (three reasons); (7) organizational survival, other functional field dependency, and legal compliance (three reasons); and (8) HRM profession's growth.

It is true that there is no generally accepted model of HRM in the literature which can be taught to students of HRM and which can be applied by HRM professionals in industries in Sri Lanka and perhaps in the developing context. The increased understanding of modeling HRM in detail acquired by the lecturer will lead to increase his or her structuring dimension of lecturing behaviour, which has a significant positive impact on student satisfaction of learning (Opatha, 2020). My observations of HRM teachings performed by academics and professionals in Sri Lanka uncover that different models, particularly foreign ones are being utilized by some academics and professionals and of course no models of HRM which represent an overview of HRM are being utilized by others. A careful examination of the textbooks on HRM reveals that there are some textbooks which do not present a model of HRM and a certain number of books do present. There is a need of developing a model of HRM which is a relatively more comprehensive, richer, understandable, and teachable one that will be more useful for HRM academics and professionals, at least in Sri Lanka and in the developing context. Also, I have a personal scholastic need and a social obligation to develop and present such a model to the readers of this paper and particularly to my students to enhance their learning of HRM by being the first Professor in HRM in Sri Lanka and the first Senior Professor of HRM (Chair) in Sri Lanka.

I established three objectives for writing this theoretical research paper. They are:

1. To perform a brief description of selected popular models of HRM developed by various scholars or authors.
2. To revisit and review the model of HRM developed by me in 2009.
3. To introduce a generic model of HRM with an adequate theoretical base.

2. Method

This research paper is non-traditional by being descriptive and prescriptive. This research paper is theoretical as it is based on the ideas and perceptions. Indeed, this is a research study done by using two non-scientific methods such as authority mainly and intuition to a certain extent. Authority is a non-scientific method of acquiring knowledge and it involves seeking answers from authority or experts on a specific subject (Davis & Cosenza, 1985; Nazario-Romero, 2016). As this research paper aims at forming an essential foundation for modeling the subject of HRM by making an original theoretical contribution to the existing body of knowledge of HRM, it is considered as a basic study. In order to achieve the first objective, a relevant literature survey was done by using the desk research strategy. Textbooks and scholar books on HRM published by relevant authorities were utilized. The available textbooks and scholar books were first examined for exploring the availability of models of HRM. Not all but only some textbooks and scholar books had models and only five models of HRM were selected for the purpose of reviewing because of their popularity and lucidness. My writing with regard to the model was used for achieving the second objective of the paper. Arguments and strengths from the selected models, my logical beliefs, and some generally accepted relevant theories and perspectives were utilized in order to achieve the third objective which leads to the major contribution of this paper.

3. Popular Models of HRM

I define a model of HRM as a framework that theoretically describes and explains how a system of HRM works. It is instrumental for understanding how various components or elements of HRM interrelate, depend on each other and work to produce certain results. Here a model of HRM means a framework that presents an overview of HRM.

The Matching Model by Devanna, Fombrun & Tichy is a popular model of HRM and it was developed in 1984 by Devanna, Fombrun, & Tichy who were academics at the Michigan Business School, USA. An alternative name for this model is the Michigan Model of HRM. The model presents four components which include: (1) Mission and Strategy: Mission is the reason for being of an organization. Strategy includes both the process by which the objectives of the organization are chosen from the set of all feasible objectives that are available to the organization and the process by which organizational resources are used to carry out those objectives; (2) Organization Structure: This means the way of designing the organization to carry out works to achieve organizational objectives including division of labour, job designing, departmentation, delegating authority etc.; (3) HRM: This means systems of recruiting and developing people to do jobs defined by the organization's formal structure, and evaluating people's performance and rewarding it; and (4) Environmental Pressures: These include economic forces, political forces, and cultural forces which have effects on the above mentioned three components.

The model stresses that HRM is an integral part of Strategic Management (SM) which consists of mission and strategy, organization structure, and HRM. The model points out that HRM is affected by mission and strategy and organization structure and also HRM does affect mission and strategy and organization structure, implying that the four components are interrelated and inter-depended. A major point or idea given by the model is that HRM plays a critical role in strategy formulation and implementation being an integral part of SM. Another major point is that HRM needs to be matched with mission and strategy and organization structure. There are environment pressures which affect SM including HRM. This point can be considered as the third point deriving from the model. The model is a general model showing the linkage between SM and HRM, and however, it does not indicate certain specific functions of HRM.

The Harvard Model of HRM by Beer, Spector, Lawrence, Mills, & Walton is another popular model of HRM. This model was developed by Beer, Spector, Lawrence, Mills, & Walton being academics at the Harvard University in 1984; and this model is alternatively called the map of the HRM territory (Beardwell & Claydon, 2007). The model presents five components which include stakeholder interests, situational factors, HRM policy choices, Human Resource (HR) outcomes, and long-term consequences. These five components are interrelated in a larger system and in the model, there is feedback that means that long-term consequences impact stakeholder interests and situational factors. An example is that increased profit which is a measure of organizational effectiveness impacts shareholders in the way that increases their satisfaction. HRM policy choices include employee influence (industrial relations and employee involvement); human resource flow (employee resourcing and HR development); reward systems (reward management); and work systems (motivation, control and work systems) (Vickerstaff, 1992). According to the model, there are stakeholders and situational factors which affect HRM policy choices, which subsequently result in HR outcomes, which ultimately lead to long-term consequences.

Major ideas of the model are: (1) When HRM policy choices are made stakeholder interests are to be taken into consideration; (2) There is a need of locating HR policies in a wider environmental context that is having external forces and internal forces; (3) HRM activities generate two types of results, i.e., HR outcomes and long-term outcomes; and (4) HRM is for well-being of employees, success of the organization, and well-being of the society. The labelling of the components of HRM policy choices may not be consistent with traditional labelling of HRM functions. Job satisfaction, job involvement, lack of counter-productive behaviour, attendance can be considered as important HR outcomes though they have not been included specifically in the model.

The Model of HRM by David Guest is a well-known model of HRM, and David Guest from London School of Economics developed this model of HRM in 1987. According to his thinking and proposing HRM comprises a set of policies designed to maximize organizational integration, employee commitment, flexibility and quality of work, and within this model, collective industrial relations have only a minor role (Guest, 1987). This model can be viewed as a theory of HRM (Legge, 1995) and it theorizes that policies lead to HR outcomes (which are strategic planning/implementation, commitment, flexibility/adaptability, and quality) then lead to organizational outcomes (which include high job performance, high problem-solving, successful change, low turnover, low absence, low grievance level, and high cost-effectiveness). In the model basically HR policies represent HRM functions, and Guest (1987) identified HR outcomes as goals of HRM.

The Guest model of HRM is a significant contribution to understand and explain a particular approach to managing people at work. Some of the major points of the model are (adapting from Guest, 1987): (1) HRM activities (so called policies) need to be designed and implemented in order to achieve four goals such as integration, commitment, flexibility, and quality; (2) The achievement of the four goals will lead to organizational outcomes, i.e. high job performance, high problem-solving, successful change, low turnover etc.; (3) If HR policies can be integrated into strategic plans, if they cohere, if line managers show the importance of HR cognitively and behaviourally, if there is an identify of interest (what is good for the organization is perceived by its employees too as good for them), organizational strategic plans get implemented successfully. The model does not directly consider some organizational outcomes such as profits, market share, legal compliance, and customer service quality. Ethicality of employees as a goal of HRM seems to have not been considered.

Jackson and Schuler presented a framework for managing HR through strategic partnerships in 2003. The Framework for Managing Human Resources through Strategic Partnerships by Jackson & Schuler is considered by me here as an important model of HRM even though most of the general textbooks on HRM do not have a discussion on it. A major reason for such a non-discussion is more likely that the model was developed as a unique one exclusively for the relevant textbook. According to the authors HRM refers to all of the activities that an organization uses to affect the behaviours of all the people who work for it; and because the behaviours of

employees influence profitability, customer satisfaction, and a variety of other important measures of organizational effectiveness, managing HR is a key strategic challenge. The framework presents a discussion of what an organization needs to consider in managing HR effectively. I believe that this framework is comprehensive and very useful. It has five components, i.e., stakeholder satisfaction, HRM activities, organizational environment, global environment, and the HR profession. All the five components have effects on each other. Most importantly the framework stresses that HRM does not occur in a vacuum but it occurs in a larger context internally, locally, and multi-nationally.

Managing HR through strategic partnerships means performing HRM activities in the way that makes stakeholders, particularly key ones satisfied. Jackson & Schuler (2003), by presenting the framework, define success as effectively serving the interests of primary stakeholders, and theorize that their interests define an organization's fundamental objectives which, in turn, drive its approaches to managing employees.

The HR profession is a special component in this model of HRM which has not been seen in other models. According to Jackson & Schuler (2003) understanding the HR profession is essential for successful managing HR in an organization as it provides HR professionals who have the right expertise (knowledge and skills) to design and implement HRM systems without which managing HR does not become effective. Some major points of the model are (adapting from Jackson & Schuler, 2003): (1) HRM activities can be formal policies and daily practices. Formal policies represent statements of expectations and aspirations; (2) HRM activities do not occur in a vacuum and they are shaped by various internal forces, which, in turn, get shaped by forces in the external global environment; (3) Change is an ongoing process in the organization and HRM activities play a central role in supporting the organization's ongoing process of change; (4) It is a must that line managers in all fields of organizational management get involved in HRM; and (5) Professional HRM expertise is essential for the design and implementation of effective HRM systems. The model does not consider HRM academics as a separate factor or along with the HR profession. HRM academics indeed have a positive impact on originating new concerns for HRM and formulating solutions for various HRM issues being faced by a particular organization or organizations in industries in general.

The ARDM Model of HRM by Ivancevich is the next model of HRM presented here. Ivancevich (2010) introduced this model called the ARDM model for HRM. The ARDM (A = acquiring, R = rewarding, D = developing, and M = maintaining and protecting) HRM model presents four major components, i.e., external environmental influences, internal environmental influences, human resource processes, and desirable end results, and explain the interrelationships among them. The model emphasizes some of the major external and internal environmental influences that directly or indirectly affect the match between HRM activities and people (Ivancevich, 2010). It is a mention in the model that it is not possible to include every important environmental influence, HRM activity, or criterion for effectiveness, and instead, the model provides an orderly and manageable picture of what HRM activities (HRM functions were labelled as HRM activities) intend to accomplish. It is possible to see four words (in fact four verbs) such as 'Diagnose, Prescribe, Implement, and Evaluate' in the model. When an employee problem (example: an employee is not properly performing his or her job) occurs, that needs to be solved. In solving the HR problem, the HR manager is required to diagnose the problem (to identify its cause or causes), then prescribe (to make a solution), then implement (the made solution is activated), and finally evaluate (to assess the effectiveness of the made solution in solving the problem). Hence, the ARDM model can be applied by the manager to making decisions.

Major points of the model are: (1) There are four main HR processes, i.e. acquiring HR, rewarding HR, developing HR, and maintaining and protecting HR; (2) Focus of each of these four major HR processes is on people and results; (3) HR activities have to be designed and implemented in the way that they lead to desirable end results (socially responsible and ethical practices, competitive high quality product/s, competitive high quality service/s); and (4) A set of relevant factors needs to be focused in HRM. The model does not provide specific HRM functions though it presents four major areas of HRM.

4. Revisiting the Model of HRM by Opatha

Opatha, the author of this research paper, presented an original model in 1995 in his book titled *SEWAMANDALA KALAMANAKARANAYA (Personnel Management)* in Singhala medium. Later I published the same with few additions in the book titled *Human Resource Management: Personnel* in 2009. Refer to Figure 1. This is the model of HRM developed by me as an endeavour to pioneer Sri Lankan literature of HRM. As a matter of fact, this is the first model of HRM developed in Sri Lanka. The model consists of four components, i.e., HRM functions, objectives, strategic goals, and generic purpose. I used the term 'function' for the term 'activity', hence HRM activities (labelled by other authors) were labelled as HRM functions. The model presents

a comprehensive list of HRM functions starting with job design and ending with labour relations. Altogether, eighteen HRM functions exist in the model. These functions are interrelated (from the arrows shown in Figure 1 this is visible) and some functions (example: successful performance of selection function depends on successful performance of recruitment function) are interdependent.
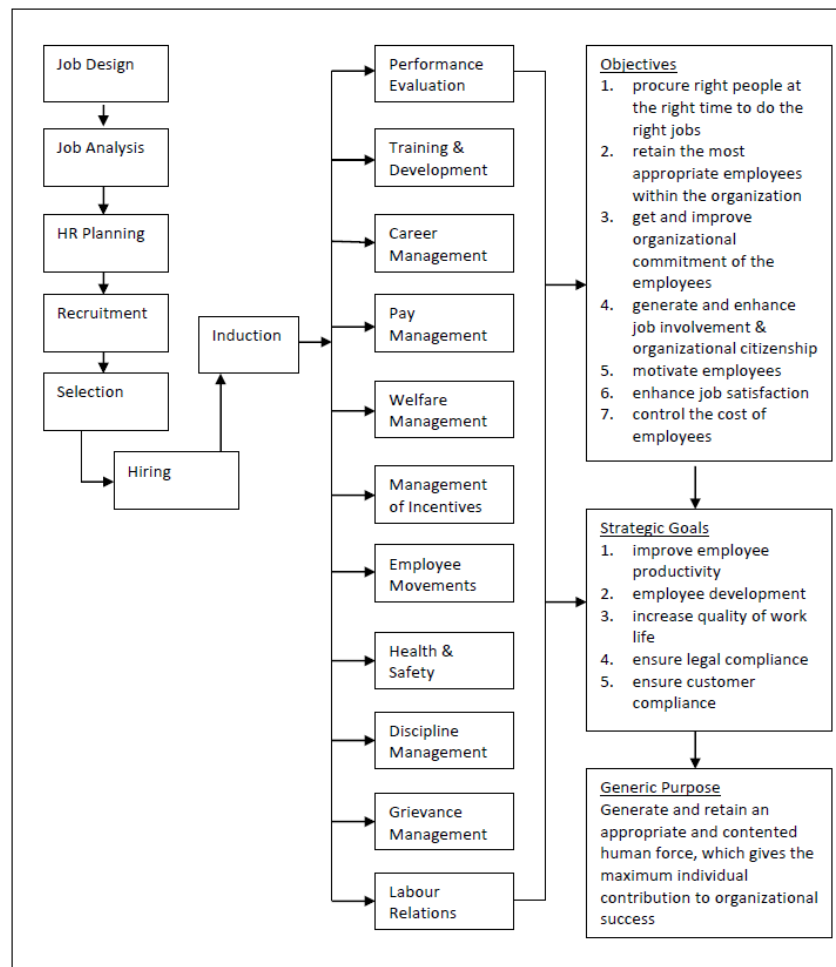

Figure 1. Opatha's Model of HRM

Source: Opatha (1995); Opatha (2009)

Opatha (2009) theorizes that generic purpose of HRM, i.e., *to generate and retain an appropriate and contented human force, which gives the maximum individual contribution to organizational success,* needs to be accomplished by achieving strategic goals of HRM and objectives of HRM, and in order to achieve them, a series of functions called HRM functions is to be performed. Managing people at work in an organization consists of 18 functions called HRM functions which need to be performed in order to achieve objectives of HRM, and then goals of HRM. Accomplishment of objectives and goals of HRM will finally result in realizing the generic purpose of HRM which is in simple "to generate and retain right employees who give maximum contributions to achieve organizational success".

The model presents four major points which are: (1) A sequential process exists from job design to induction. It implies that job design has to be done first and then job analysis and then human resource planning and so on; (2) In respect of functions from performance evaluation to labour relations, usually a sequential process does not exist. It implies that these functions can be performed simultaneously or there are no pre-requisites or post-requisites; and (3) HRM functions contribute to achieve objectives of HRM and strategic goals of HRM; and (4) Achievement of objectives and strategic goals of HRM leads to achieve generic purpose of HRM.

I consider this model as comprehensive, and indeed it is an internally focused model meaning that it does not include environmental aspects, both external and internal. In reality there are forces which exist in the business

environment and they influence and moderate the way of managing employees in an organization. For example, a demand from a group of people that comes to the organization to stop environmental pollution caused by the organizational work influences the relevant management to start and implement seriously a program that makes the employees of the organization green. I consider this model as useful owing to the four major points which were mentioned in the above paragraph. My experience of using this model for teaching HRM to thousands of undergraduate and postgraduate students was highly positive. By the time of writing this paper I possess 34 years of active teaching experience.

5. A Generic Model of HRM

I hereby introduce an advanced model of HRM for which I call Generic Model of HRM. This model takes into consideration of many dynamics of managing people at work in an organization. Though the model can be considered as an advanced model I present it here in the way that is simple and distinct as well. Refer to Figure 2.
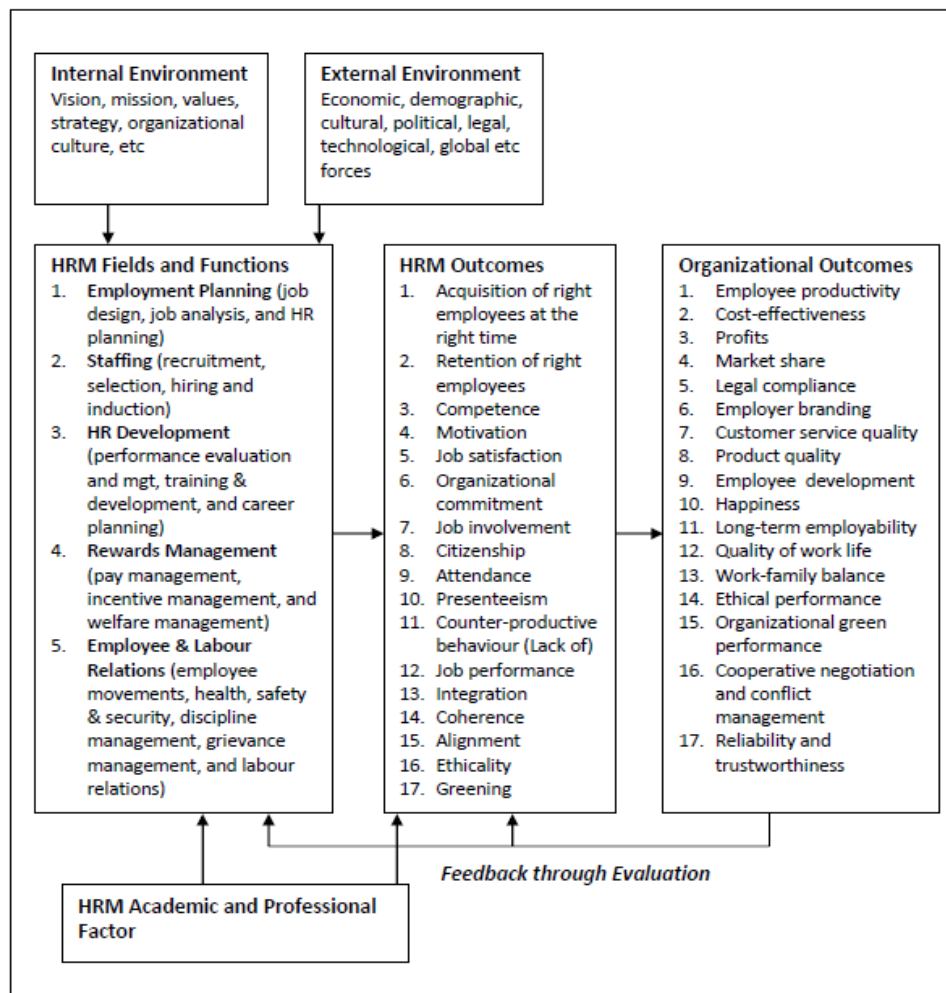
Figure 2. A Generic Model of HRM

HRM outcomes will result in organizational outcomes which represent organizational success. Organizational success may alternatively be called organizational effectiveness, business performance, or organizational performance (Ramawickrama, Opatha, & Pushpakumari, 2017). One of the popular theories in management is Stakeholder Theory or Approach (Freeman & McVea, 2001; Greenwood & Simmons, 2004). If a question "For whom is HRM?" is asked, the answer needs to be ideally "for all stakeholders". Stakeholders are the parties or individuals who can affect and are affected by the performance of the organization. Primary stakeholders of an organization are owners (who have invested their money to start the organization), customers (who purchase the products of the organization to meet their various needs), employees (who give their competencies, time, effort etc to perform various jobs of the organization), other organizations such as suppliers (who provide various

inputs needed by the organization to transform to produce goods or services) and unions (that have organized labour to protect relevant job or occupational interests), and society (people in general and the natural environment). The natural environment can be considered as a separate unique constituent as it is the planet. The natural environment includes lands, forests, plants, animals, and other natural phenomena; and people and organizations utilize various inputs from it as resources and therefore, they depend on the planet (Opatha, 2019[3]). Jackson & Schuler (2003, p.17) write:

"The principle that effective management requires attending to all relevant stakeholders is as true for managing human resources as for other management tasks. Human resources practices cannot be designed solely to meet the concerns of employees. Nor can they be designed by considering only their consequences for the bottom line. Organizations that are the most effective in managing people develop HR systems that meet the needs of all key stakeholders."

Is it possible to meet the needs of all key stakeholders simultaneously? This is an important question in this context. There are two opposing ways of looking at the role of stakeholder management, i.e., zero sum and symbiosis (Dess, Lumpkin, & Fisner, 2008). Zero Sum is a perspective that looks at stakeholders as competing for the organization's resources which are indeed limited. Gain obtained by one stakeholder group will become a loss of another stakeholder group (Dess, et al, 2008). Examples: (1) if employees get higher pay, that will reduce profits for shareholders; (2) If the company gives a donation to a charity, that will take money for the organization reducing profits for owners (Opatha, 2019[3]). Thus according to this perspective, there will be conflicting demands. Symbiosis is a perspective that looks at stakeholders as parties who depend on each other for their success and well-being. Each group needs other groups for its success and survival, and managers acknowledge the interdependence among employees, suppliers, customers, shareholders, and the community at large (Dess, et al, 2008). Each group must reduce its greed and selfishness so as to get mutual gain to a significant extent. Close relationship should exist among the groups (Opatha, 2019[3]). According to this perspective, the organization can get mutual gain through stakeholder symbiosis. Thus, in order to develop this model of HRM, symbiosis perspective was adopted. According to a theory of HR Co-creation proposed by Hewett & Shantz (2021), HR and stakeholders optimize value through collaborative efforts to innovate in the design and use of HR practices to satisfy needs of multiple stakeholders in better way.

As far as the proposed generic model is concerned, success can happen at two levels, i.e., HRM level and organization level. Success at HRM level is represented by HRM outcomes. Organizational outcomes do represent success at organizational level. Thus, organizational success is the extent to which the specific organizational outcomes have been realized. Jackson and Schuler (2003) define success as effectively serving the interests of key stakeholders.

17 specific organizational outcomes have been mentioned in the model and they relate to the interests and needs of primary stakeholders, i.e., owners & investors, customers, employees, society (including the natural environment), and other organizations such as suppliers and trade unions. Specific outcomes from 1 to 6 relate to satisfaction of owners and investors. Specific outcomes numbered 7 and 8 relate to customer satisfaction. Four specific outcomes from 9 to 12 relate to employees. Specific outcomes numbered 13, 14, and 15 relate to the needs of the society (including the natural environment). The needs of other organizations are related by specific outcomes numbered 16 and 17. Indeed items 1 and 5 relate to employees too. It is asserted that HRM can serve all these stakeholders.

HRM functions get changed or shaped by forces which are in the internal environment and the external environment. According to Institutional Theory pressures emanate from the internal and external environments, and an organization as a social entity seeks approval for its performance in socially constructed environments (Jackson & Schuler, 1995). Institutional theory suggests that external pressures shape organizational action, and regulatory and social pressures are critical (Arulrajah & Opatha, 2016). One internal force is strategy which is what top managers of the organization expect to accomplish in the long run. If strategy of an organization that is in super market industry includes an expansion of business such as starting a new shop in a new location it has a direct impact on HR planning, recruitment, selection, hiring, induction, and training. A new group of employees will have to be estimated, recruited, selected, hired, and inducted. Also the new staff will have to be trained. One external force is competition. An organization may face intense competition in labour market. When a large number of organizations compete for certain human resources, a greater attention has to be given to retaining high performers within the organization through appropriate actions such as a new career development programme and a new job redesign programme. To give a detailed analysis of various forces both in internal environment and external environment is beyond the objectives of this paper.

Feedback through evaluation is an integral component of the model of HRM. Degree of successful performance of each HRM function needs to be measured in order to determine how well and how far it has been carried out. Furthermore, degree of accomplishment of each of HRM outcomes needs to be measured. For betterment of HRM in the future it is essential to get right answers for questions such as (1) Have HRM functions been carried out in the planned way or not? (2) Can they be improved further? (3) If yes, how can they be improved? (4) Have HRM outcomes (goals in another way) been accomplished? and (5) To what extent have they been accomplished?

Hence, feedback through measurement becomes essential. After measuring, deviations can be known and then remedial actions can be taken to make things better. Many years ago, a classic author of HRM (then Personnel Management) namely William F. Glueck (1979) explained the importance of evaluating the personnel functions and he utilized a term, i.e., Personnel Audit for evaluation of the personnel function. One of the most important functions of HR professionals is to evaluate talent management and development techniques and identify opportunities for the purpose of effective management of human capital (King, 2016). It is appropriate to mention here several approaches of HRM evaluation which include HR Scorecard (Opatha, 2009; Dessler, 2018), HR Audits (Werther & Davis, 1996), HR Surveys (Schmitt & Klimoski, 1991), HR Experiments (Sekaran & Bougie, 2016), HR Qualitative Studies (Bryman & Bell, 2011), and HR Analytics (Bhattacharyya, 2017; Opatha, 2020).

In the model, there is a component namely HR academic and professional factor. In this particular contextual factor, there are university academics who do new significant contributions to the existing body of knowledge of HRM and professionals who deal with professional institutes of HRM. For example, when a new book that contains new concepts and principles to enhance certain phenomena in the organizations was published by a well-known appropriately and highly qualified academic, HR manager and his or her staff of the organization may decide to adopt and adept the ideas of the book in managing employees. Consequently, new HRM systems get commenced.

Thus, HRM is a vast management phenomenon and it has certain distinct functions (may be called activities) to be carried out by HR manager and other managers. Successful performance of these HR functions will lead to accomplishment of HRM outcomes. Then, the accomplishment of HRM outcomes results in organizational outcomes. Furthermore, these HRM functions are shaped by various forces in the internal environment and external environment. It is essential to do feedback through measurement for making successful performance of HRM functions better and increasing the degrees of accomplishment of HR outcomes. HRM academic and professional factor contributes to formulation, addition or dropping of certain HRM systems or practices.

An attempt was made to adapt the General System Theory to underpin the proposed generic model of HRM. According to Wright & Snell (1991) the general system theory has a discussion of inputs, processes, and outputs. At this model, the inputs are various forces which exist in the internal environment and the external environment as well. HRM fields and functions are to be considered as processes. HRM outcomes and organizational outcomes become the outputs. For the purpose of developing an expanded underpinning, the Resource-based View of the Firm is adapted. According to Barney (1991), the resource-based view makes it clear that sustained competitive advantages can only be found in the rare, imperfectly imitable and non-substitutable resources which are present in the firm. Competitive advantage is only possible to happen in situations of firm resource heterogeneity and firm resource immobility (Wright & McMahan, 1992). The resource-based view of the firm is a perspective that firms' competitive advantages are due to their endowment of strategic resources that are valuable, rare, costly to imitate, and costly to substitute (Dess, et al, 2008). Through sound performance of HRM functions it is possible for the organization to acquire, develop, and maintain employees who are valuable, rare, difficult to imitate, and difficult to substitute. These unique employees enable the organization to realize various HRM outcomes and organizational outcomes.

HRM literature (Hendry, & Pettigrew, 1986; Schuler, 1992; Kleiman, 2000; Mello, 2002; Anthony, Kacmar, & Perrewe, 2010; Stewart & Brown, 2014) provides a useful perspective called Strategic Perspective. The strategic perspective mainly focuses on (1) utilizing human resources and HRM as a source of sustainable competitive advantage (Kleiman, 2000; Mello, 2002); (2) HRM is integrated with the strategy and strategic needs of the organization such as vision, mission, and goals (Anthony et al, 2006); (3) HRM policies and functions cohere within themselves and with other functional fields of the organization (Opatha, 2009); and (4) HRM strategies are aligned with competitive business strategies (Stewart & Brown, 2009). Certain HRM outcomes such as integration, alignment, and coherence come from the strategic perspective.

Finally, another perspective called Sustainability Perspective is considered as a significant underpinning for the

generic model of HRM proposed by me. Sustainability perspective drives from the paradigm of Triple Bottom Line introduced by Elkington (1994, as in Johnson, 2007), framework of Sustainable HRM introduced by De Prins in 2011 (as in Rompa, 2011), the writing by Cohen, Taylor, & Muller-Camen (2012), and the writing by Kramar (2013). Greening which derives from sustainability perspective is a critical employee requirement to be created and enhanced within every employee in every organization (Opatha, 2013; Opatha & Arulrajah, 2014; Opatha and Kottawatta, 2020). Opatha (2019[3], p. 31) defines: *"Sustainable HRM is that part of HRM which is concerned with Planet-related matters, Society-related matters and Profit-related matters. It refers to the policies, procedures, rules, practices, and systems of managing employees which contribute to achieve sustainability."* As a result of this perspective, I included presenteeism (Werapitiya, Opatha, & Fernando, 2016), ethicality (Silva, Opatha, & Gamage, 2016), and greening as HRM outcomes; and profits, employer branding, happiness, work-family balance, ethical performance, and organizational green performance as organizational outcomes.

6. Conclusion

I decided not to use certain generally accepted research methods for this research paper as it is a non-scientific one, but an original theoretical research paper. Being a basic or pure paper, this paper was written to achieve three research objectives. The first one was: "To perform a brief description of selected popular models of HRM developed by various scholars or authors". 34 textbooks and 07 scholar books which were readily available to me were examined and five models were selected owing to their international popularity and personal interest. The Matching Model by Devanna, Fombrun & Tichy; the Harvard Model of HRM by Beer, Spector, Lawrence, Mills, & Walton; the Model of HRM by David Guest; the Framework for Managing Human Resources through Strategic Partnerships by Jackson & Schuler; and the ARDM Model of HRM by Ivancevich were described.

The second research objective of this paper was: "To revisit and review the model of HRM developed by me in 2009". This model consists of 18 functions of HRM, objectives of HRM, strategic goals of HRM, and the generic purpose of HRM. The model shows the sequential order and the network of relationships among the components. Finally, a brief review was performed and it was argued that the model is an internally focused model as it does not include environmental aspects, both external and internal. However, it is indeed useful and valid.

The third research objective was: "To introduce a generic model of HRM with an adequate theoretical base". A generic model of HRM was developed and presented in a simplified and lucid way and it is composed of seven components with a logical network of relationships. The seven components include internal environment, external environment, HRM fields and functions, HRM outcomes, organizational outcomes, HRM academic and professional factor, and feedback through evaluation. 17 HRM outcomes were specified and 17 organizational outcomes were specified. Common theories and perspectives such as stakeholder theory, symbiosis, general system theory, the resource-based view of the firm, institutional theory, strategic perspective, and sustainable perspective were used to provide a sufficient underpinning to the generic model of HRM developed in this paper. In addition, arguments and empirical observations given and made by other scholars were utilized. In fact, logical beliefs of the author of this paper were instrumental in developing the model. It is expected that the model of HRM developed in this paper gives a significant original contribution to the existing body of knowledge of HRM, not only the local knowledge but the global knowledge too. To perform empirical studies based on the model is indeed useful for providing empirical evidence and substantiation. Correlational studies and field experiments by using a set of variables deriving from the model are suggested generally.

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Public Policy and Youth Employment: An Empirical Study of Cameroon's Experience

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Abstract

The aim purpose of this paper is to assess the contribution of public policies on youth employment in Cameroon. To do this, we used the multinomial Logit model that is being followed up for our employment equation. The maximum probability method is the estimation technique used and applied to data extracted from the EISS database (2011). Three main results emerge from this study: (1) young people who wish to self-employment do not have adequate training and the technical and financial support offered to them by the government is insufficient; (2) the incentives proposed by the State to private operator to encourage them to recruit young people do not always contribute to this objective and (3) the massive recruitments carried out by the State fail to pay off all unemployed young people. In this situation, the Cameroonian state should further strengthen the professionalization of training and, above all, guide training offers in the areas that present opportunities in our country. It also needs to strengthen the facilities afforded to private companies to encourage them to recruit more young people. We also suggest that the Cameroonian government provide more technical and material support to young people who are seeking it and, on the other hand, to raise more funds for the bankable projects presented by these Last.

Keywords: interlocking multinomial Logit model, maximum probability method, public policies, youth employment

JEL Classification: H52, H53, J18; J23, C35, C51

1. Introduction

At the end of January 2014, at the initiative of the International Development Research Centre (IDRC) and Thinks Tank, an international conference was held on the issue of youth employment in Sub-Saharan Africa. It brought together development partners, national and regional decision-makers. Indeed, statistics produced by specialized institutions show that the issue of youth employment spares no regardless of its level of development. For example, and for example, in France, the youth unemployment rate reached 24% in 2017. In Sub-Saharan Africa, it is higher and varies, according to the AfDB in 2016, between 30% and 40%.

The situation in Cameroon follows this general trend as young people find it difficult to access decent employment. Unemployment and underemployment of young people are reaching very high levels. According to the results of the Employment and Informal Sector Survey (EISS 2011), about 23.8% of young people aged 17 to 35 are unemployed, especially in urban areas (46%). According to the ILO, overall underemployment is about 89%. Rural youth are the most affected, with about 94% under-employed compared to 85% of urban youth, with an increased number of highly skilled youth. However, this last tranche is the major major target.

In response, the Government of Cameroon undertook several actions, including the creation in 1990 of the National Employment Fund (NEF), whose role is to promote employment by facilitating the meeting between offers and applications. In December 2004, a ministerial department was created and entirely dedicated to employment and vocational training. In order to ensure transparency in the labour market and transform the informal sector, the National Observatory for Employment and Vocational Training (NOEVT) was set up and the Integrated Support Project for Actors in the Informal Sector (ISPAIS) was implemented. In all regions of the

country, experimental projects for disadvantaged young people are operational, such as the Youth and Associative Life for Social Insertion (YALSI) programme. In order to integrate young people, MINJEC has implemented the Rural and Urban Youth Support Programme (RUYSP) and the Youth Socio-Economic Integration Project through the creation of micro-enterprises for the Manufacture of Sports Materials (PIFMAS).

Aware of the place of young people in the total population (36.28%), the dynamism of this age group (17-35 years) and its ability to match current technological developments, the Government of Cameroon has undertaken these various actions with the aim of significantly reducing the unemployment of these young people and ensuring the socio-economic development of Cameroon. But despite all these different actions, the expected results are below expectations. Thus, the government's concern about the evaluation of these policies is legitimate. As a result, several questions emerge: what are the main challenges faced by young job seekers? Do the various actions defined by the Government take these difficulties into account? Are these actions accessible to all young people? Which of these actions is most favourable to the employment of cameroonian youth?

In view of the above and in the light of the literature that points out that public action interventions for youth employment concern coaching, financial support, labour taxation, the minimum wage and the performance of the training system (World Bank, 2012; Nicoletti & Scarpetta, 2005; Nunziata, 2002; Nickell, 1997), this study aims to ascertain whether all the measures initiated by the Cameroonian Government promote youth employment. Specifically, we are talking about assessing the effects of these measures on access to employment or not on the one hand and on the type of employment on the other. The originality of this study is based on the methodology adopted. It is based on the use of an embonomial multinomial logit model that has the advantage of taking into account both levels of evaluation.

After this introduction, which is the subject of the first section, the rest of the article is organized in the following way. The second section is devoted to a brief review of literature. The third presents the characteristics of the labour market and the various public policies in favour of youth employment in Cameroon. Methodology, data and estimation techniques are presented in the fourth section. The fifth section presents and analyzes the results. The sixth concludes and suggests some economic policy recommendations.

2. Public Policy and the Labour Market: A Selective Review of Literature

Faced with the persistence of problems of access to employment for young people, economists of all theoretical currents have tried to revise their interpretations. The neoclassicals have proposed new explanations of unemployment, either in terms of dysfunction as in the standard theory, or in terms of the rationality of the unemployed. Keynesians continued to explain unemployment by insufficient demand. Since the 1990s, in the search for key measures to facilitate access to employment in general and access to employment for young people in particular, the role of public policy has increasingly been considered in analyses. Our readings show that these public actions in the labour market have three main orientations. The first group of programmes focuses on the demand side of the labour market and the second on the supply side, while the third group aims to improve the functioning of the labour market.

On the applicant side, governments have attempted to encourage recruitment by reducing the cost to employers of providing employment (Crépon & al., 2012). The analysis of a reduction in the cost of labour centred on a particular category (for example, young workers) leads to the distinction of three main mechanisms. The impact on employment may first result from a micro-economic substitution effect, the extent of which depends on the elasticity of substitution between the different factors of production (youth work, the work of experienced people and capital). Also at the micro-economic level, the lowering of the cost of a factor has a mechanical impact on the cost of production of the company. The latter can pass this decrease on to its selling price, and thus see the demand addressed to it increase. At the same time, price adjustments can lead to substitution effects at the macro level, passing through the relative prices of different products according to their relative intensity in different factors of production: for example, a fall in the cost of youth labour should lead to an increase in the relative demand for goods and services whose production is intensive in young work (and thus , symmetrically, a decline in the relative demand for capital intensive goods and services of experienced people). However, in order to fully appreciate the overall impact of such a measure on employment (not only low-skilled), it would also be necessary, beyond the effects we have just mentioned, to take into account the effects of macroeconomic "closure", and in particular those related to the financing arrangements of the measure.

Empirical studies show that the issue of the relationship between labour costs and youth employment was far from unanimous in the economist community. The debate focused in particular on the effects of the minimum wage. In the United States, the decline in the federal minimum wage (in relative and real terms) during the 1980s, and its sharp increase between 1989 and 1991, had not had a significant impact on employment (Card & Krueger,

1997).

In addition to the minimum wage, other studies have considered the reduction of social security contributions. Whether it is work based on forward-looking assessments (Laroque & Salanié, 1999), computable general equilibrium models, estimated microsimulation models based on wage and participation equations (Laroque & Salanié, 1999) or retrospective evaluations (Crépon & al., 2012), the results are those of a significant positive effect of the reduction of social contributions on total employment.

For labour offerers, public policy involves several actions (Ryan, 2001). First, education policy measures are based on the idea that youth unemployment is due to a problem of inadequate or inadequate training. The main objective of these schemes is to bring education systems closer together in order to improve the adaptation of skills to the needs of the productive apparatus. This group includes alternating training contracts: apprenticeship contract, adaptation contract and qualification contract (Sabina Issehnane, 2009; Nickell, 1997). Research has suggested that higher levels of education and cognitive skills are associated with economic growth (Hanushek & Woessmann, 2012) and the employment of a larger share of young people in the modern non-agricultural wage sector (Lee & Newhouse, 2012). If increased educational attainment is not associated with a greater accumulation of skills, schooling will have a limited effect on overall growth and the composition of employment.

Second, governments can intervene directly in the labour market by creating non-market jobs and facilitating the conditions of creation, particularly in the field of new technologies. Indeed, the development of new technologies has increased the dependence of the countries of the South, as they have been created and patented in developed countries. Moreover, it is essentially the multinational companies that hold the rights. In recent decades, the demand for new technologies has gained new dynamism and contributed to the creation of new jobs. However, many of these jobs are in developed countries, although they now tend to be more evenly distributed as a result of the increasing internationalization of production processes controlled by large companies. New technologies generally lead to labour savings. This should not lead us to refuse them, but rather to seek to put in place an active policy of ownership and development of their applications, exploiting the progress that often manifests itself at the national level.

Finally, assisted merchant contracts are part of deregulation policies. The political economy model of unemployment argues that radical labour market reform is needed to combat structural unemployment. Some studies conclude that the level of unemployment compensation and its duration have a significant impact on unemployment (Scarpetta, 1996; Nickell, 1998). Similarly, a number of empirical studies find that heavy taxation of labour tends to increase the unemployment rate (Bassanini & Duval, 2009; Nickell, 1997), although other studies are less conclusive in this regard (Scarpetta, 1996; Elmeskov & al., 1998; Nunziata, 2002). In addition, some macro-term studies identify a favourable effect on overall labour market expenditure (MTPA) spending on active labour market policies and an adverse effect of homeownership, but they do not agree on the extent of these effects (Scarpetta, 1996; Green & Hendershott, 2001, Nickell & al., 2005).

Regarding measures to improve the functioning of the labour market, (Nickell, 1997) confirms in a study examining the effects of institutions on fluctuations in the employment rate on several countries in Europe that the factors influencing mainly the duration of unemployment benefits, unionization rates, coordination between employers and employees, taxation on labour, the minimum wage and the performance of the training system. Similarly, the World Bank states that labour market regulation provides important social protections for workers in terms of: employment contracts, severance pay, unemployment benefits, dismissal grounds, trade union rights, or the scope of collective bargaining.

3. Some Stylized Facts about the Labour Market in Cameroon

Two main concerns are ours in this section. The first relates to the socio-professional situation of young people in Cameroon. The second refers to the variety of actions initiated by the Cameroonian Government on behalf of these young people.

3.1 A Labour Market Dominated by High Youth Unemployment

The labour force participation rate is one of the indicators that allows us to assess the dynamics in the labour market. Its fluctuations give an indication of the market's ability to open up or close to job creation. In addition to this indicator, we also have the unemployment that characterizes the labour market in Cameroon.

3.1.1 High Unemployment among Cameroonian Youth

According to the results of the Employment and Informal Sector Survey (EISS, 2011), about 23.8% of young people aged 17 to 35 are unemployed. This rate hides disparities by gender, age, region of residence and degree.

By gender, women are more affected (26.3%) men (19.6%). Comparing these rates with those of overall unemployment (18.8% for women and 11.6% for men) there is a greater discouragement among women in finding a job. At the regional level, in addition to the major metropolises, notably Douala and Yaounde with about 40.4%, young people from the Adamaoua and South-West regions are the most affected by unemployment with rates above the national average. It should also be noted that the phenomenon is more pronounced in urban areas where the average rate is 27.4% compared to 14.3% in rural areas. The rise in educational attainment does not appear to be a parade against unemployment. The unemployment rate is generally higher among those with the higher level. Indeed, it is 13.7% among those holders of the BAC/GCEAL/BEP, 22.8% for those with BTS/DUT/DEUG/NHD, 15.7% for licensees/BD and 10.4% for master's/DEA/Master/MBA holders.
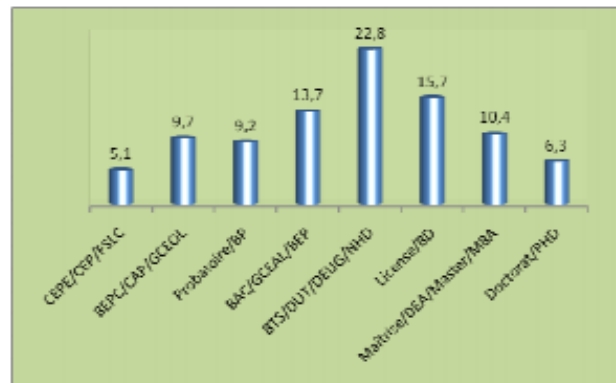

Figure 1. ILO unemployment rate according to the highest degree (%)

Source: EISS 2 database (INS, 2011)

The majority of these unemployed are first-time job seekers. In fact, they are 59.5% first-time applicants compared to 40.5% for those who have already held a job. Moreover, unemployment is long-term, with 56.4% of them looking for work for more than a year, with an average duration of unemployment of 34.3 months. This is higher in rural areas (46.2 months) than in urban areas (31.2 months).
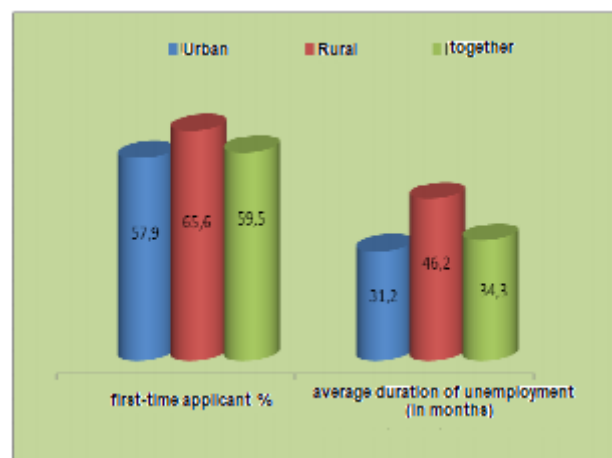

Figure 2. Characteristics of the unemployed

Source: EISS 2 database (INS, 2011)

3.1.2 Preference of These Unemployed for Formal and Well-Paid Employment (This Is the Public Offer)

The majority of unemployed people, for job security reasons, have a preference for employment in the public or formal private sectors. Among the unemployed, 65.9% prefer to be employed in the public or formal private

sector, 21.6% are in self-employment and 12.4% are indifferent. Compared to the level of education, almost 8 out of 10 unemployed at the higher level prefer a salaried job, compared to those at the secondary level, who are 26.2% in favour of self-employment. It is therefore not out of the question that some, already active in the informal sector, are candidates for public policy.
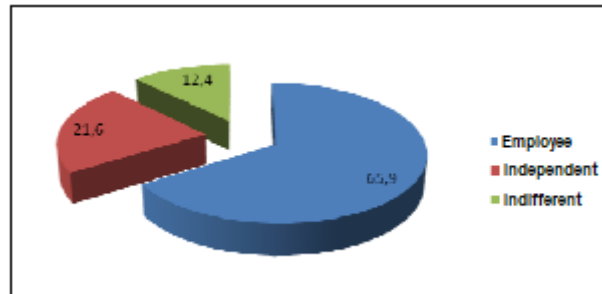

Figure 3. Jobs sought by graduates aged 17 to 40 (%)

Source: EISS2 database (INS, 2011)

For young Cameroonians in the [17-35] age group with at least one degree, the average wage claims are 119,412 CFA francs per month, 156,323 CFA francs per month for men and 99,484 CFA francs for women. These wage claims grow with the diploma. In fact, they go from about 70,728 CFA francs for those with the CEP or a diploma equivalent to 400,000 CFA francs among those with a Doctorate to 201,416 CFA francs for those with a BTS or equivalent degree. On the other hand, regardless of the degree, men have consistently higher wage claims than women.
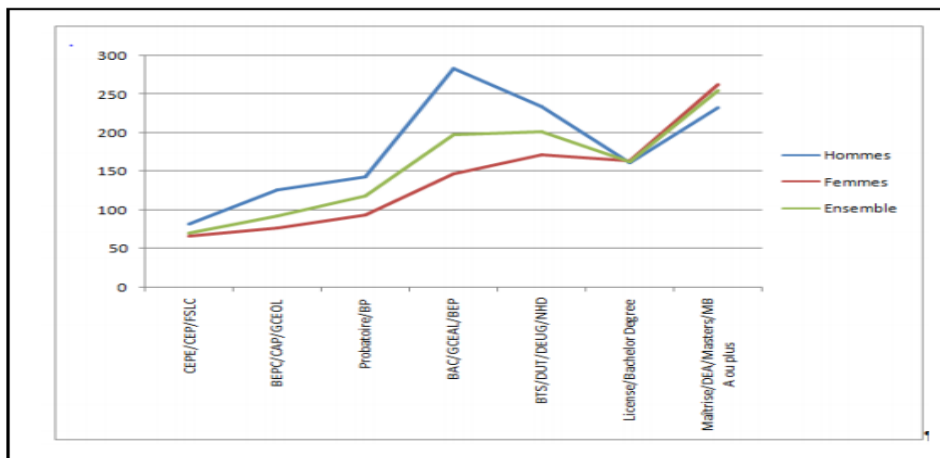

Figure 4. Wage claims among those in school aged 17 to 35, in thousands of FCFA, by gender

Source: EISS2 database (INS, 2011)

3.2 Public Policies for Youth Employment

Economic theory points out that public policies in favour of employment can be grouped into two main categories: active and passive policies. This second group of measures is to make unemployment bearable by the unemployed by guaranteeing them an income and to reduce the unoccupied labour force. These include unemployment insurance, the compensation of the unemployed, which aims to provide some income security for people who are not employed. Unable to implement these measures, the Government of Cameroon has opted for active policies aimed at improving young people's access to paid employment and encouraging their autonomy. The first group of programmes focuses on the demand side of the labour market and the second on the supply side, while the third group aims to improve the functioning of the labour market.

3.2.1 Cameroonian State Actions on Behalf of Labour Force Actors

Knowing that the demand for work in the Cameroonian labour market is the work of public and private actors, we present here the measures taken by the government to boost it.

- Measures for private demand

The Cameroonian government has taken a number of actions to remove barriers to private sector development and business creation, and to enable the private sector to act as a driving force for growth and economic development. These actions focus on the liberalisation and simplification of administrative procedures and taxation. The Cameroonian government has also undertaken, with the help of external partners, to provide the SME landscape with new support instruments more in line with the new liberal economic orientations. Specific actions are also being taken towards SMEs and are coordinated within the Priority Sme Promotion Programme (PSPP). This programme aims, among other things, to promote the private sector through the creation and development of SMEs, to create jobs and to strengthen the capacity of women, young people and people with disabilities to start businesses.

The new investment code provides incentives for businesses to create new jobs. Thus, the SME scheme is granted to companies that create at least one permanent job for Cameroonians increments of less than or equal to five (5) million CFA francs of investments planned by the company and of which at least 35% of the capital is held by Cameroonians or Cameroonian legal entities. These measures, which enable the development of private enterprises, will ultimately encourage the recruitment of young people into private companies. We have the case of companies working in different sectors of activity that recruit young people, notably the Breweries of Cameroon, Orange Cameroon, MTN, to name but a few.

- Measures for public demand

These measures include the recruitment in 2011 of 25,000 public officials between the ages of 17 and 40 in the Public Service. This decision, which is very far-reaching politically and socio-economically, has been welcomed by all populations. They see it as a beginning to solve the thorny problem of unemployment, especially that of young graduates, some of whom have been desperate for employment for more than a decade; Direct recruitment competitions in the various public administrations open to young people aged 17 to 35; the development of the partnership with the socio-professional circles provided by the Ministry of Higher Education; Advocacy for youth employment and internships in public and private services provided by the Ministry of Youth and Civic Education; Etc.

3.2.2 The Actions of the Cameroonian State in Favour of the Actors of the Labour Offer

Knowing that competence is the key to employment, the Cameroonian government has invested in both university and vocational training for young people. While vocational training is a long-standing concern of the Cameroonian government, its regulation and diversification were strengthened by Law 76/12 of 08 July 1976. These texts officially create initial and continuing vocational training. This legislation, which was deemed outdated, has adjusted to the new socio-economic context. A new policy on orientation and vocational training is being developed to address a number of issues, including measures to support adjustment, ways and means to reform and optimise the infrastructure of the training system, the choice of training methods and means, the financing of vocational training, new vocational training courses to be developed. , the renovation of learning, etc.

Beyond competence, the Cameroonian government has in recent years created several programmes to facilitate the self-employment of young people. The actions of these structures concern, among other things, financial, technical and material support to young people who wish to start their own business. These structures include the Rural and Urban Youth Support Programme (RUYSP); Youth Insertion Fund (YIF); National Youth Insertion Fund (NYIF); Youth Insertion Project by the creation of micro-companies for the Manufacture of Sports Equipment (PIFMAS); Integrated Informal Sector Actor Support Project (IISASP); Multi-media Development Relay Project (MDRP); Young Farmers' Settlement Support Program (YFSSP); Development of entrepreneurship and youth self-employment; Piloting and coordinating the activities of youth coaching structures; Commonwealth Youth Credit initiative; Annual Employment and Career Orientation Show; Strengthening professional integration; Socio-professional integration of girls and women (SIGW); Improved Rural Family Income (IRFI); Quantitative increase in the supply of vocational training, etc.

3.2.3 Cameroonian State Actions to Improve the Functioning of the Labour Market

Similarly, the definition of the policy for promoting private investment is the responsibility of MINDIC through the direction of industrial development. This directorate is also responsible for the evaluation and adaptation of

the investment code, monitoring the activities of the National Investment Corporation (NIC), the National Office of Industrial Free Zones, industrial promotion or investment organizations, etc. The establishment of an incentive framework to attract private investment has been made effective by the Investment Code, the Free Zones Act, the Labour Code, the creation of an Investment Code Management Unit and the National Office of Free Zones and tax-customs reform.

It is clear from the above that the Cameroonian government has defined and implemented several measures in favour of youth employment. All these actions demonstrate the government's commitment to providing employment for young Cameroonians. But by looking at the number of candidates applying for these different offers, both private and public, we can safely say that young Cameroonians are quite interested. But these measures remain insufficient because not all young people who apply are always positive. As proof, direct recruitment competitions in large schools such as the 180-seat open ENAM receives nearly 6000 applications. This leads us to say that there is necessarily an imbalance between the different offers and the number of applicants. The state's limited offer is justified by the lack of means to pay these new workers. On the other hand, the low recruitment by private companies can be justified either by the lack of coincidence between the training of young people and the qualifications required, or the absence or inadequacy of the facilities granted by the State to them in order to encourage them to recruit more young people or the gloom of the economic situation which does not stimulate the employment of a large quantity of labour. Despite all these measures, it is clear that the expected results are not always achieved, as a large proportion of young Cameroonians are still unemployed. We are therefore talking about assessing the effects of these various measures taken by the government on the youth employment situation.

4. Study Methodology

In this section we present the interlocking multinomial logit model and the justification for its choice on the one hand, the data and variables of this model on the other.

4.1 Introducing the Interlocking Multinomial Logit Model and Justifying Its Choice

Historically, the study of models describing the modalities taken by one or more qualitative variables dates from the 1940s-1950s. The most striking works of this period are undoubtedly those of Berkson (1944, 1951). It was from the 1970s that these models were used to describe economic data, including the work of McFadden (1974) and Heckman (1976). Most of these used simple dichotomy models (Logit and Probit models). But when the variable to be explained has more than two modalities, dichotomous models become inappropriate, justifying the use of multinomial logistics models (Guadagni & Little, 1983).

However, this type of model assumes proportional substitution frameworks (ownership of the independence of irrelevant alternatives, IIA), i.e. the ratio of probability choices of two alternatives (Pj/Pk) is not dependent on the presence or absence of other alternatives in the model. If the IIA test is inconclusive, an alternative model to the multinomial logit model (LM) should be used. The natural alternative to the latter is a multivariate probit model, the estimate of which is however complex in the current state of knowledge. Another more operational model has been developed to partially relax the strong IIA hypothesis; it is the interlocking multinomial logistics model (Guadagni & Little, 1998).

This interlocking multinomial logit (LME) model is a combination of standard logit models that differs from the latter in that the components of the alternative choice error do not necessarily need the same distribution. In addition, the LME model admits, more general alternative frameworks. The idea of this model lies in a grouping of similar alternatives within subsets or subgroups, with the aim of creating a hierarchical structure of alternatives (Ben-Akiva & Lerman, 1985; Train, 2003) which does not necessarily require that the process of individual choice be sequential. The error terms of alternatives within a (same) subset are correlated to each other, while those of alternatives in different subsets are not correlated. Thus, the IIA hypothesis is maintained within each subset, but the variance may differ between the different subsets. The interlocking multinomial logit model process thus accommodates a violation or partial loosening of IIA ownership. This model can be considered a two-tiered (or more) choice problem.

In this study, we are talking about assessing the impact of public policies on youth employment in Cameroon. However, we know that in the search for employment, young people face the difficulties that are observed at two levels. The partition of these difficulties into sub-sets or sub-groups is thus easily achievable, since one can naturally distinguish the situation of absence of employment from all other difficulties which are all employment situations. Thus, if a young person cannot find a job, then he is unemployed. On the other hand, if he gets a job, he works either as an employee of the public sector, the private sector or as a self-employed person (self-employment). This hierarchical structure of our model can be reproduced in the form of the following
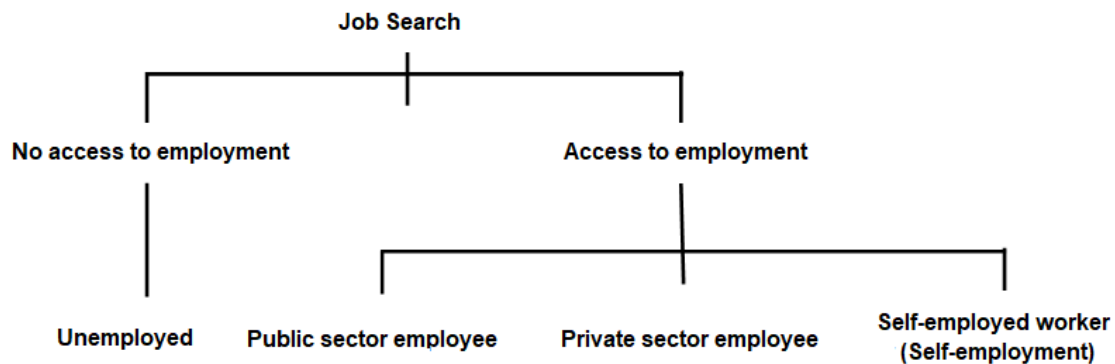
decision tree:

Figure 5. Multinomial logit model nestled for job search in Cameroon

Source: Authors

Let's look now at how it will be mathematically specified. Like the multinomial logit model, the mathematical specification of the nested multinomial logit model reflects the probability that a young person will be in either sector knowing that they have landed a job, and are assessed using the following equation:

$$Prob(Y_i = j/p) = \frac{exp(\beta'_j z_i)}{\sum_{k=1}^{3} exp(\beta'_k z_i)} \tag{1}$$

The difference between the LM and LME models occurs in the process of assessing the likelihood of being unemployed rather than having access to employment. This probability becomes:

$$Prob(Y_i = 0) = \frac{exp(\beta'_0 z_{i0})}{exp(\beta'_0 z_{i0} + exp(\lambda.I_i))} \tag{2}$$

With $I_i = ln(\sum_{k=1}^{3} exp(\beta'_k z_i))$

In this formulation, the zi0 vector corresponds to a set of variables specific to the explanation of access to employment or not. These may differ from the explanatory variables of obtaining employment in a sector (zi). The term Ii represents the inclusive value to the sector concerned (public, private or self-employment). In this formulation, if equal to 1, the LME model is reduced to a standard LM model. Thus, it is by allowing the term to differ from the unit that the LME model releases the IIA hypothesis through the different "branches" of the decision tree. It is maintained between choices belonging to the same subgroup, but is relaxed between subgroups. The probability of getting a job in a particular sector is written as follows:

$$Prob(Y_i = j) = Prob(Y_i = j/p) * \left(1 - Prob(Y_i = 0)\right) \tag{3}$$

The parameters of the LME model thus defined can be estimated by the usual techniques of maximum likelihood.

It is hypothesized that residues ε in the stochastic utility function have independent distributions of the type GEV (generalized extreme-value). It should also be noted that it is also possible to estimate an LME model sequentially using a step-by-step method (Maddala 1983). It is then estimated at first the 'j' in the equation (1), and then the inclusive value ii is calculated. Finally, we can calculate the '0' through the equation (2). However, this method results in some loss of effectiveness in this case. However, it is very useful in evaluating large models for which the maximum likelihood method becomes difficult to use. The setting can be used to test the

IIA hypothesis. Indeed, a test of the zero hypothesis - 1 will be an effective test of the relevance of the latter in the LM model.

4.2 LME Data and Variables

The data used in this work are extracted from the EISS database, i.e. the Informal Sector Employment Survey conducted in 2011 by Cameroon's National Statistical Institute (NSI). The survey base used consists of the consolidation of Cameroonian households. Renter counts the requirement of the study, individuals no age is greater than 35 years or less than 17 years were not selected in the survey database. This restriction resulted in a total population of 13110 individuals scattered throughout the national territory (see Table 5 in appendix). In order to take into account the countries of the region, the Cameroonian territory has been divided into 12 regions: Far North, North, Adamaoua, East, South, West, Southwest, Central except Yaounde, Coastal except Douala, and the cities of Douala and Yaounde are considered to be separate regions and assimilated respectively to the departments of Wouri and Mfoundi. The data used in this work are extracted from the EISS database, i.e. the Informal Sector Employment Survey conducted in 2011 by Cameroon's National Statistical Institute (NSI). The survey base used consists of the consolidation of Cameroonian households. Renter counts the requirement of the study, individuals no age is greater than 35 years or less than 17 years were not selected in the survey database. This restriction resulted in a total population of 13110 individuals scattered throughout the national territory (see Table 5 in appendix). In order to take into account the countries of the region, the Cameroonian territory has been divided into 12 regions: Far North, North, Adamaoua, East, South, West, Southwest, Central except Yaounde, Coastal except Douala, and the cities of Douala and Yaounde are considered to be separate regions and assimilated respectively to the departments of Wouri and Mfoundi. We know that one of the objectives of statistics is to observe phenomena in a homogeneous group of individuals. Thus, the exerbene Douala and Yaounde of the respective provinces Littoral and Centre will reduce the bias on the calculated indicators because these two cities are the most populated.

The multi-sector model of access to employment that we will implement is a discrete choice model. As a result, it first requires a change in the shape of the data usually used for estimating "classic" models. Indeed, the characteristics of individuals are no longer presented "on a single line", but in the form of panel data requiring each individual to write a line of characteristics for each choice available to him. This form, although more complex, has two significant advantages. On the one hand, it allows, if necessary, to choose different explanatory variables depending on the alternative that one wishes to explain. On the other hand, it allows consideration of attributes related to the different choices that the individual can make. This means that it allows different variables to be taken into account, for the same individual, depending on the choice he or she makes.

This specific form of data can be particularly interesting for the study of access to employment. Indeed, it can be considered that the different possibilities offered to each individual are not necessarily explained by the same variables. Thus, it can be argued that non-access to employment is most often linked to variables specific to the socio-economic structure and characteristics of the individual, while access to an employment sector depends on the actions defined and implemented by the Government and on the other hand to the potential of the young person.

Our model therefore requires the use of several variables that we can group in the following way:

➢ a Variable dependent on the equation of the first level or top level. It identifies the alternatives at this level, namely the two options available to young people who are looking for work: having access to a job or not;

➢ a variable dependent on the second-level or bottom-level equation. An "employment-type" variable that identifies the different opportunities available to young people who have found a job ;

➢ variables of access to employment or not (first level or top level). These variables are mainly related to the specific characteristics of the young person (age, education level, gender, social capital); institutional (favourable youth employment policies) and economic (economic) environment in the country;

➢ explanatory variables of the choice of an employment sector (second level or bottom-level). These variables mainly relate to the individual characteristics of different employment sectors. Here we can remember the various public policies defined and implemented for young people (massive recruitment of young people to the civil service, the facilities granted to private companies that recruit young people, the technical and financial support provided to young people who wish to settle for themselves); the competent characteristics of young people (type of training, qualification area, entrepreneurial ability, professional experience, concern for stable situation).

5. Results and Interpretations

Before presenting the results of the estimates of our interlocking multinomial logit model using the maximum likelihood method, we highlight the variables selected for this model our data from descriptive statistics.

5.1 Descriptive Statistics of Our Variables

Our variable dependent on the top level consists of two modalities: either the young person has access to employment or not (unemployment). Table 6, appendix, shows that the majority of our sample is unemployed (62.01%) compared to only 37.91% of those who are employed. Table 7 in appendix shows our variable dependent on the second level. We find that the majority of young people who work are public sector employees (16%), followed by private sector employees (15%). We find that young people who move in on their own account account only 6.91%. This situation can be explained by several factors including insufficient financial resources, the inability to set up a good project or the complexity of the procedures for setting up a business.

These dependent variables are explained by a set of independent variables whose average values and standard deviation (in parenthesis) are presented in the table below according to the level of equation on the one hand and the different employment sectors on the other.

Table 1. averages and standard deviations (in parentheses) of the variables in our analysis for different segments of the labour market

Variables	Employment sectors				
	Unemployed	Public sector employment	Private sector employment	Self employment	Together
General characteristics of the young person, environment institutionnel et économique du pays					
environnement institutionnel et économique du pays					
Ages	26,44 (5,24)	22,05 (0,78)	24,58 (0,49)	33,64 (1,21)	25,12 (5,36)
Ages squared/100	7,26 (2,76)	4,86 (0,34)	6,04 (0,24)	11,33 (0,81)	6,59 (2,76)
Sexes (1 = male)	1,45 (0,49)	1,55 (0,49)	1,55 (0,50)	1,48 (0,48)	1,52 (0,49)
Marital status (1 = married)	2,12 (1,59)	1,72 (1,46)	2,04 (1,60)	2,51 (1,54)	1,98 (1,53)
Highest diploma (1=GCE AL)	2,32 (1,63)	2,68 (1,54)	2,77 (1,83)	2,66 (1,94)	2,57 (1,68)
Social capital (1=yes)	1,84 (0,40)	1,74 (0,50)	1,79 (0,48)	1,93 (0,24)	1,81 (0,43)
Employment policy (1=yes)	0,3 (0,08)	2,00 (0,56)	1,97 (0,68)	1,95 (0,80)	1,97 (0,59)
Economic conditions (1=good)	0,5 (0,1)	1,88 (0,41)	1,13 (0,38)	1,82 (0,38)	1,88 (0,33)
Specific skills, psychological status of the young person and various public actions in his favour					
Type of training (1-professional)	1,58 (0,62)	2,78 (0,42)	1,87 (0,33)	1,55 (0,58)	1,63 (0,64)
Qualification area (1-management)	1,49 (0,57)	2,04 (2,01)	1,60 (0,60)	1,39 (0,57)	1,59 (0,58)
Entrepreneurial capacity (1-yes)	1,07 (0,41)	2,14 (3,02)	1,62 (0,58)	2,48 (0,56)	2,68 (0,49)
Concern for stable situation (1-yes)	1,12 (0,69)	1,98 (0,41)	2,67 (0,49)	1,51 (1,45)	1,73 (1,73)
Work experience (1-yes)	1,18 (0,63)	1,48 (0,58)	2,04 (1,93)	1,51 (0,34)	1,76 (0,42)
Minimum income	188840 (17,19)	222475 (1,02)	258563 (3,20)	210545 (0,35)	195241 (1,73)
Investment structure (1-yes)	1,89 (0,88)	1,11 (0,65)	1,67 (0,58)	1,18 (0,40)	1,21 (0,41)
Direct recruitment actions (1-yes)	1,79 (0,61)	1,86 (0,57)	1,63 (0,66)	1,03 (0,54)	1,90 (0,29)
Technical, financial and material support (yes)	1,92 (0,87)	1,21 (0,67)	1,21 (0,42)	1,87 (0,23)	1,98 (0,13)
Subsidies and tax exemptions (1-yes)	1,62 (0,48)	1,25 (0,12)	1,97 (0,31)	1,21 (0,23)	1,70 (0,45)
Number of individuals (percentage of total)	7122 (0,62)	1858 (0,16)	1770 (0,15)	721 (0,07)	11471 (1)

Source: author calculations from EISS database, 2011

5.2 Results of our Estimates

Tables 2 and 3 below give the results from the LME and LM models respectively. It should be noted at the outset that in these two tables, the coefficients are interpreted differently from those of a "usual" multinomial logistics model. In the latter, the coefficients are interpreted as the effect of a unit increase in the variable on the chances of making a particular choice rather than the "excluded" or "reference choice" choice for which the coefficients are arbitrarily kept at zero for technical reasons. Here, the factors on access to employment are interpreted as the marginal effect of a unitary variation of the variable considered on the non-employment (unemployment) rather than the obtaining of that job. The coefficients on access to an employment sector give the marginal effects of a unitary variation of the variable considered on access to an employment sector.

Knowing that the primary advantage of the LME model is to release, at least partially, the strong IIA hypothesis specific to the LM model, a Hausman-McFadden specification test of the IIA hypothesis was conducted on the LM model. The result of this test does not disprove the IIA hypothesis. The possible "superiority" of the LME model will therefore have to be measured in hindsight since the IIA hypothesis is not yet formally questioned. The I parameter in the LME model could be used to test the IIA hypothesis (see above, equation (2)); a test of hypothesis I-1 may indeed be an effective test of the relevance of the latter in the LM model (and therefore of the possible interest of using an LME model). This result is much more interesting. The parameter I has a significant different value of the unit (2,124) and above all the zero hypothesis I - 1 is rejected at 1%.It can be concluded that in this case, the LM model is not an appropriate tool for assessing the explanatory factors of access to employment. The results suggest that the proposed alternatives in the employment sectors are closer substitutes. For the sake of rigor other tests to verify the superiority of the LME over the LM can be performed.

Tables 2 and 3 below show that the results obtained from the LME model are interesting in that they provide a large number of significant variables, both in the explanation of access to employment and in the explanation of access to employment and in the analysis of access to different employment sectors. The chosen specification option, which is to assume that access to employment depends on the individual characteristics of the young person, institutional and cyclical factors, while the orientation towards an employment sector depends on the intrinsic skills of the young person and the integration mechanisms proposed by the government, seems to allow for a better explanation of the different situations. Indeed, variables such as age, gender, highest degree, social capital, institutional and cyclical head of household can be considered to influence obtaining employment, but not necessarily access to a particular sector of employment. On the other hand, the variables related to the young person's skills and the various offers of the State will rather play on his orientation towards a sector if he ever has the chances to get a job.

Table 2. Results of the Interlocking Multinomial Logistics Model (ML) Estimates of our Employment Equation

Variables	Employment sectors			
	Unemployed	Public sector employment	Private sector employment	Self employment
General characteristics of the young person, the institutional and economic environment of the country				
Ages	-0,36 (-0,02)**	---	---	---
Ages squared / 100	0,24 (0,05)***	---	---	---
Sexes (1 = man)	-0,89 (-0,45)**	---	---	---
Highest diploma (1 = License)	0,47 (0,02)***	---	---	---
Social capital (1-yes)	-0,89 (-0,32)**	---	---	---
Employment policy (1=yes)	-0,34 (-0,06)**	---	---	----
Economic Conjuncture (1=favorable)	-0,52 (-0,08)*	---	---	---

Specific skills, psychological status of the young person and various public actions
in his favour

Type of training (1=academic)		---	0,78	-0,46	-0,03
Qualification area (1=management)		----	-0,29	0,78	0,32
			(-0,12)**	(0,42)**	(0,30)**
Entrepreneurial capacity (1=yes)		----	-0,28	-0,32	0,72
			(-0,10)**	(-0,11)**	(0,31)***
Concern for stable situation (1=yes)		----	0,58	-0,47	-0,35
			(0,44)***	(-0,26)	(-0,31)**
Work experience (1=yes)		---	0,45 (0,26)	0,61	0,45
				(0,22)	(0,41)
Minimum income		---	0,59	0,82	0,47
			(0,29)*	(0,23)	(0,23)
Investment structure (1=yes)		---	-0,28	0,34	0,29
			(-0,41)***	(0,22)***	(0,12)***
Direct recruitment actions (1=yes)		---	0,45	-0,36	-0,32
			(0,26)***	(-0,22)**	(-0,13)**
Technical, financial and material support (1=yes)		---	-0,25	-0,31	0,41
			(-0,48)**	(-0,13)**	(0,21)***
Subsidies and tax exemptions (1=yes)		---	-0,21	0,38	0,22
			(-0,23)**	(0,33)***	(0,18)***
Inclusive value λ		2,124			
		(1,12)***			

-2Log Likelihood = -645,148	P^2(sig P $)^1$ = 387,87 (0,000)
R ^{2} adjusted^2 = 0,401	**N**
= 11471	

Source: author calculations from EISS database, 2011

Table 3. Results of the Multinomial Logistics Model (ML) estimates of our employment equation

	Secteurs de l'emploi			
Variables	Unemployed	Public sector employment	Private sector employment	Self employment
Caractéristiques générales du jeune, environnement institutionnel et économique du pays				
Ages	-0,31 (-0,04)**	---	---	---
Ages squared /100	0,29 (0,09)*	---	---	---
Sexes (1 = man)	-0,88 (-0,48)*	---	---	---
Highest Diploma (1=Licence)	0,35 (0,01)*	---	---	---
Social capital (1=yes)	-0,84 (-0,40)	---	---	---
Employmen policy (1=yes)	-0,3 (-0,08)*	---	---	----
Economic conjuncture (1=favorable)	-0,5 (-0,1)	---	---	---

Specific skills, psychological status of the young person and various public actions in his favour

Type of training (1=academic)	---	-0,62 (-0,10)**	-0,42 (-0,12)*	-0,06 (-0,37)*
Qualification area (1=management)	----	0,31 (0,12)*	0,62 (0,42)*	0,18 (0,11)*
Entrepreneurial capacity (1=yes)	----	-0,38 (-0,11)*	-0,20 (-0,13)	0,67 (0,26)
Concern for stable situation (1=yes)	----	0,62 (0,14)	-0,33 (-0,19)*	-0,49 (-0,25)
Work experience (1=yes)	---	0,38 (0,24)**	0,76 (0,29)**	-0,58 (-0,56)*
Minimum income	---	0,65 (0,28)	0,87 (0,26)*	0,23 (0,35)
Investment structure (1=yes)	---	-0,19 (-0,54)*	0,46 (0,36)*	0,28 (0,10)*
Direct recruitment actions (1=yes)	---	0,49 (0,71)**	-0,35 (-0,15)*	-0,08 (-0,11)**
Technical, financial and material support (1=yes)	---	-0,51(-0,47)*	-0,31 (-0,12)*	0,47 (0,23)*
Subsidies and tax exemptions (1=yes)	---	-0,23 (-0,24)*	0,37 (0,32)*	0,21 (0,21)

-2Log Likelihood = -663,848			P ^{2}(sig P $)^1$ =
	278,24 (0,001)		
R ^{2}	**adjusted^2**	=	0,354
N = 11471			

Source: author calculations from EISS database, 2011

Notes for Tables 2 and 3: the values in parentheses represent the student's t; *** = significant at 1%, ** = significant at 5%, * = significant at 10%; (1) test of the likelihood ratio calculated according to RV = 2 (L1-L0) where L1 corresponds to the -2 Log Likelihood of the unconstrained model and L0 corresponds to the -2 Log Likelihood of the constrained model; it follows a chi ^{2}law at N- (2k-1) degrees of freedom, k being the number of variables; (2) this is an adjusted pseudo-R ^{2}equal to: 1 - (L1 / L0)

The age of individuals increases the chances of participation in the labour market in a very significant way. The negative sign means that increasing age decreases the chances of getting a job. This is all the more true for the Cameroonian case, especially in the recruitment of the public service, since the age limit for participation in a competition is 32 years. The quadratic aspect of the age-access to employment relationship is demonstrated by the negative sign and the strong significance of the age-related coefficient divided by one hundred. The coefficient of "sex" of individuals shows that being a man, all other things being equal, increases the chances of getting a job. The variable "highest degree" has a positive and significant sign at 1%. This means that a highly educated young person is more likely not to get a job. This is due to the fact that most employers in Cameroon who are looking at reducing costs prefer to recruit young people who do not have enough degrees since the remuneration will also be lower. The coefficient of the variable "social capital" is negative and significant at 5%. This result reflects the reality of Cameroon since obtaining a job is very often conditioned by the existence of a strong relationship network that supports the young person's candidacy. The variable "employment policy" has a negative and significant sign at 5%. This means that the young person who benefits from the government's facilitating measures does not find himself unemployed. Also, when the economic situation is favourable, the obtaining of employment is guaranteed if we take note of this coefficient.

With regard to access to one sector of employment, we observe that young people who have received academic training are more likely to work in the public sector, their chances in other sectors are negative; the significance of these coefficients ranges from 1% to 5%. Also, the fact that a young person has a management qualification significantly increases his chances of being in the private sector by simultaneously reducing his chances of being employed to the public. Having entrepreneurial skills greatly increases the chances of self-employment, at the expense of the chances of accessing the other two segments. Young people who are concerned about stable employment significantly increase their chances of ending up in the public sector at the expense of the other two

sectors. Young people with work experience are more likely to work in the private sector than in the other two sectors. The values of these coefficients and their level of significance tell us about the effects of individual skills on access to any other sector of employment in Cameroon.

We are currently analysing the effects of public policies on youth employment. Young people who benefit from the support of investment structures (such as the NEF, BMO, etc.) increase their chances of accessing the private sector more than to self-employment and decrease the chances of access to the public sector. Young people who benefit from direct recruitment measures significantly increase their chances of accessing the public sector, particularly in the public sector, at the expense of the private sector and self-employment. Also, young people who receive technical, material and financial support from structures such as ISPAIS, RUYSP, etc. significantly increase their chances of self-employment and decrease their chances of being employed in the public and private sector.

Finally, tax exemptions and government subsidies increase the young person's chances of accessing the private sector rather than self-employing and reduce the young person's chances of being employed in the public sector. These results show us that the various public policies defined and implemented by the Cameroonian government are bearing fruit. But the low value of these coefficients indicates that these measures are not effective.

Comparison of marginal effects from the two estimated models, allows for a more direct comparison of the results of the LME and LM models. It appears that there are significant discrepancies between the two estimates. The marginal effects on access to employment do not show the notable differences for the two models. The differences are more or less pronounced when one considers the marginal effects of public policies on the choice of an employment sector. The role of direct recruitment action, for example, is more pronounced on the LME than on the LM. This succinct comparison of the marginal effects estimated by our two models, which reveals a number of significant discrepancies, is in the direction of a more careful consideration of the possibility of implementation of models releasing the IIA hypothesis.

Table 4. Marginal Effects in LME and LM Models

Variables	Employment sectors						
	Unemployed		Public sector employment		Private sector employment		Self employment
	LME	LM	LME LM		LME	LM	LME	LM
General characteristics of the young person, the institutional and economic environment of the country							
Ages	-1,48 -0,23		---		---		---
Ages squared /100	+0,89	+1,9	---		---		---
Sexes (1 = man)	-2,83 -1,48		---		---		---
Marital status (1 = married)	-0,05	0,01	---		---		---
Highest diploma (1=BAC)	+0,38 *+0,23*		---		---		---
Social capital (1=yes)	-2,12 -1,28		---		---		---
Employmen policy (1=yes)	-0,47 -0,16		---		---		----
Economic conjunture (1=favorable)	-1,52 *-0,58*		---		---		---

Specific skills and psychological state of the young person, different public actions on behalf of young people						
Type of training (1-professional)	---	-2,12 -3,12	-2,24	- 3,14	-2,26	-2,39
Qualification area (1-management)	----	+5,75 +6,81	+4,79	+2,32	+3,35	+2,37
Entrepreneurial capacity (1-yes)	----	-4,24 - 2,58		-1,72	- 0,97	+2,45 +1,26
Concern for stable situation (1-yes)	----	+5,67 +1,19	-0,35	-1,25	-0,65	-0,25
Work experience (1-yes)	---	+1,34 +2,21	+1,67	+0,84	-1,58	-2,56
Minimum income	---	+2,68 +8,20	+4,87	+1,22	+2,48	+ 3,11
Investment structure (1-yes)	---	-3,79 -2,03	+1,23	+ 2,10	+0,88	+1,12
Direct recruitment actions (1-yes)	---	+3,87 +1,15	-2,50	-4,15	-3,08 -6,11	
Technical, financial and material support (yes)	---	-1,24 -0,45	-2,37	-2,13	+2,27 +1,22	
Subsidies and tax exemptions (1-yes)	---	-2,32 -1,24	+1,95	+ 1,72	+2,02 +1,25	

> Italic values correspond to non-significant variables in the models concerned; they are therefore reproduced only as an indication and cannot give rise to any interpretation.

Source : calculs auteurs à partir de la base EISS, 2011

6. Conclusion

The aim of this article was to assess the effects of public policies on youth employment in Cameroon. To do this, we first conducted a literature review which allowed us to see that state interventions are a group of passive and active policies. The latter focus first on measures relating to education policy because the idea is that youth unemployment is due to a problem of inadequate or inadequate training. Second, governments can intervene directly in the labour market through mass recruitment. Finally, incentives (tax exemptions, various subsidies) to private partners to encourage the recruitment of young people. To evaluate these public policies in Cameroon, we used the interlocking multinomial logit model, which not only corrects the limitations of the multinomial logit model, including IIA ownership, but also considers multi-level alternatives. The chosen estimation technique is the maximum likelihood.

After conducting the Hausman-McFadden specification test of the IIA hypothesis on the LM model, the result of this test did not allow us to disprove the IIA hypothesis. We found the result satisfactory by testing the parameter I which did have a significant different value of the unit (2,124) and especially the zero hypothesis I-1 which was rejected at 1%. This justifies the use of the LME. Our estimates show that the various public policies defined and implemented by the Cameroonian Government allow young people to be integrated into different sectors, but not substantially. Many young people are still looking for a job because they have not had the chance to join the civil service despite the massive recruitments carried out by the State, they are unable to benefit from recruitment in private companies or to settle on their own account. Faced with this situation, the Cameroonian State should further strengthen the professionalisation of training and, above all, direct training offers in areas that present opportunities in our country, including agriculture, computer engineering and agri-food. Similarly, the government needs to strengthen the facilities granted to private enterprises to encourage them to recruit more young people, it must improve the business climate that is conducive to the growth of these enterprises, which

will eventually enable the recruitment of young people. It should also increase investment in ICT infrastructure to enhance the opportunities offered by their use. Finally, we suggest that the Government of Cameroon provide more technical and material support to young people who are seeking it and, on the other hand, to mobilise more funds for the financing of bankable projects presented by these young people.

Note In Cameroon's policy of vocational integration of young people, the State considers anyone between the ages of 17 and 35. However, from the point of view of the World Bank and other entities such as the European Union, it is the age group [15-25] that is chosen.

[1] Under employment

[1] Products derived from innovation and technological change, for example

[1] The first applications were then mainly carried out in the field of biology, sociology and psychology

[1] The Anglo-Saxon term is "independence of irrelevant alternatives" (IIA). It is sometimes presented more explicitly as the "red-bus/blue-bus problem": in a three-choice model of transport, it implies that the relative probabilities between the choice of car or red bus are always specified in the same way, whether the third possible choice is a blue bus or the train. This property also means that the percentages (predicted by the model) of individuals choosing each of the alternatives will decrease in proportion to their initial importance if an additional choice is introduced into the model (regardless of that choice).

[1] Three tests of the IIA hypothesis, based respectively on the use of a Lagrange multiplier, a likelihood test or a Wald statistic, were proposed by McFadden (1987).

[1] As McFadden (1984) and Amemiya (1985) and Greene (1997) point out. Although the model is now computable, it still poses quite a lot of difficulties in interpreting the coefficients.

[1] The first to present this model was Ben-Akiva (1973).

[1] The situation we are defining here is obvious. However, when this is not the case, it is possible to store the alternatives in subgroups. Thus, when the IIA hypothesis holds (or is respected) between two alternatives, they can be stored in the same subset or subgroup.

[1] In a way, the coefficient is a measure of the "independence" of the choices of the subgroup consisting of the three opportunities in the employment sectors compared to the previous possibility, that of non-access to employment

[1] The latter, two of them, were also proposed by McFadden (1984). This is a test based on the statistic of the Lagrange multiplier and another implementing a test of the probability ratio.

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Appendix

Annexes

Table 5. Respondents' Region of Residence

	Workforce	Percentages	Cumulative percentages
Douala	2007	15.31	15.31
Yaoundé	1778	13.57	28.87
Adamaoua	843	6.43	35.31
Center	998	7.61	42.92
East	866	6.61	49.53
Far north	1453	11.08	60.61
Littoral	791	6.03	66.64
North	965	7.36	74.00
North west	874	6.67	80.67
West	1088	8.30	88.97
South	721	5.50	94.47
South west	725	5.53	100.00
Total	13110	100.00	

Source: author calculations from EISS database, 2011

Table 6. Do you have a job?

	Workforce	percentages	Cumulative percentages
Yes	4349	37.91	37.91
No	7122	62.09	100.00
Total	11471	100.00	

Source: author calculations from EISS database, 2011.

Table 7. Types of Employment

	Workforce	Percentages	Cumulative percentages
Public sector employees	1858	16,00	16,00
Private sector employees	1770	15,00	31,00
Self-employment	721	6,91	37,91
Unemployed	7122	62,09	100,00
Total	11471	100,000	

Source: author calculations from EISS database, 2011.

COVID-19 Pandemic Strategies in Tourism Activity as Guidelines for Ex-Yugoslavia Countries Tourism Recovery

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Abstract

Tourism economy is severely affected by COVID-19 pandemic, and if it is not adequately handled, the industry will suffer further negative consequences, resulting in economic failure. This study attempts to formulate post-COVID-19 recovery strategies for Destination Management Organizations (DMO) in six ex-Yugoslavia (Ex-Yu) countries. In order to achieve this, firstly, an overview of popularity of tourist sights in the Ex-Yu is given, benchmarking pre-COVID-19 to the current pandemic scenario; secondly, global best case practices of post-COVID-19 recovery strategies in Tourism economy are analyzed, drawing paralles with Ex-Yu countries.

To understand the effect of the global pandemic on the international tourism and in Ex-Yu countries, statistical data from reputable and authentic data sources was collected and analyzed. The research findings prove that effective, long-term strategies are necessary to recover the industry from the negative effects of the pandemic.

This pandemic has left such an impact on this industry, that it will be a challenge to overcome the consequences, some of them for years to stay. Therefore, governments and international organisations, as well as private companies, must establish a long-term plan for the industry so that it does not fail again, as it did in this case, in order to continue on the path of growth. At various stages, methods should be consistent and complementary. Thus, recovery strategies need to respond to challenges in a way that ensures a planned and effective recovery of the industry.

Keywords: tourism economy, tourism, best case practices, Ex-Yugoslavia countries, post-COVID-19 recovery

1. Introduction

Tourism economy in 2020 was marked with restrictions and travel cancellations, closed companies and agencies, all due to COVID-19 pandemic outbreak. The ongoing crisis, which strongly impacted travel and tourism, still presents an unpredictable outcome. Until 2020, tourism economy has made significant progress and the document „Tourism and the Sustainable Development Goals – Journey to 2030" provided progressing and future recommendations. Regrettably, it was hard to predict that an outbreak of a disease such as COVID-19 could devastate the global economy and bring global travel to a halt. Now it is essential to work on post-COVID-19 recovery strategies in tourism in order to reduce the negative consequences and speed up the industry's recovery.

The economies in the Ex-Yu countries depend on varying degrees on tourism. On average, its contribution to the region's GDP is over 10% (RCC, 2020b). The pre-COVID-19 importance of the tourism economy in the six Ex-Yu countries is explored in more detail in Xu & Agačević (2020) and reported in the Table 1.

In 2018, the global average contribution of Tourism (direct, indirect and induced) to world GDP was 10.4%, according to the WTTC 2018 report (WTTC 2018). If taken as a benchmark for the Ex-Yu countries, it can be observed how, in terms of contribution to GDP, tourism was somewhat relevant for N. Macedonia and Serbia, with room for growth, while BIH and Slovenia followed the global average, and Croatia and Montenegro resulted in being heavily reliant on their tourism economy, with values that double the global average, prior to the pre-COVID-19 pandemic.

Globally, tourism has suffered a deep and radical transformation in 2020. The numbers of visits and profit plunged, but it allowed people to discover new locations within their own countries. New tourist behaviour

trends emerged, along with new, government-supported, strategies for sustaining the local tourism. Local DMOs have to re-educate themselves on these new emerging trends and strategies in order to surivive and recover in the post-pandemic times.

Table 1. Ex-Yu countries' nominal GDP, total contribution of Travel and Tourism to GDP and yearly growth in EUR million (1,000,000)

Ex-Yu country	Nominal GDP*			Total T&T contribution to GDP*			T&T growth in %	
	2016	2017	2018	2016	2017	2018	16/17	17/18
BIH	15,332	16,628	17,374	1388	1594	1694	14.84	6.27
Croatia	46,305	49,013	51,659	8635	9493	10,097	9.92	6.37
Montenegro	3954	4299	4604	819	889	983	8.55	10.57
N. Macedonia	9877	9992	10,699	630	700	772	11.11	10.29
Serbia	38,325	40,300	42,888	2399	2620	2765	9.21	5.53
Slovenia	40,357	43,278	45,948	4823	5279	5699	9.46	7.96

This article analyses case studies of various strategies used worldwide in order to lower the negative impact of the pandemic on tourism economy. After pinpointing the best practices among these case studies, a set of recommendations for DMOs is offered. The logical thread is that cases of countries successfully coping with the challenges tourism economy have better chances for revival of the industry after the pandemic and should be used as an example for Ex-Yu countries' DMOs.

2. Methodology and Research Method

The research method is based on a systematic review of archival primary sources and secondary sources in order to find, collect, reorganize and analyze the data pertinent to the research question. In general, the quantitative data were obtained from archival censuses and analysis conducted by government Statistical Agencies, Ministries of Tourism, World Tourism Organization (UNWTO), World Travel and Tourism Council (WTTC) or Tourism research institutes. For each country, the primary sources containing quantitative data research and statistical analysis conducted by local governments have been preferred as most reliable sources. For Bosnia and Herzegovina, the BiH Agency for Statistics (2021) was consulted as the primary source; for Croatia, the primary sources were the Ministry of Tourism of Republic of Croatia (2021) and Croatian Bureau of Statistics (2021); for Montenegro, the Statistical Office of Montenegro (2021) and the Government of Montenegro (2021) were primary sources; for North Macedonia, the primary sources was the Republic of North Macedonia State Statistical Office (2021); for Slovenia, the Republic of Slovenia Statistical Office (2021) was the primary source; for Serbia, the primary source was the PBC Statistical Office of the Republic of Serbia (2021). The aim of this method was to obtain sufficient data to provide statistically valid and conclusive answers to the proposed research topic.

Concerning the various case studies pertaining to COVID-19 recovery strategies in tourism economy, existing data published by various governmental and non-governmental organizations dealing with tourism was collected and analyzed. Information used in this research was also derived from academic papers, industry white papers and news outlets.

3. Results

3.1 Impact on International Tourism

International tourism was specifically struck in 2020, and it dropped 70% in the first eight months of 2020 (UNWTO, 2020). Domestic tourism has mitigated the negative consequences on the local tourist operators and „saved what could be saved" of the season. It is the main driver of the recovery process, but full recovery of the industry is hardly possible without international tourism. According to OECD, recovery to pre-crisis levels is not expected before 2023 (OECD, 2020). Table 2 portrays the economic dependence of different countries on the tourism economy (World Bank, 2020). Countries with a high level of dependence on this industry should urgently work on recovery strategies in order to save their economies.

Table 2. Tourism Dependency by Tourism contribution to GDP, WTTC 2019 (World Bank, 2020)

Region	Severe; >20% GDP in T&T	High; 10-20% GDP in T&T	Medium; 5-9% GDP in T&T	Low; <5% GDP in T&T
East Asia & Pacific	Cambodia, Fiji, Macao SAR, Philippines, Vanuatu	Australia, China, Hong Kong SAR, Malaysia, New Zealand, Singapore, Solomon Islands, Tonga, Thailand, Kiribati	Brunei Darussalam, Indonesia, Japan, Vietnam, Lao PDR, Mongolia	Rep. of Korea, Papua New Guinea, Myanmar
Europe & Central Asia	Albania, Croatia, Georgia, Greece, Iceland, Montenegro	Armenia, Austria, Bulgaria, Cyprus, Estonia, Italy, Portugal, Slovenia, Spain, Turkey	Azerbaijan, Belarus, Bosnia and Herzegovina, Czech Republic, Denmark, Finland, France, Germany, Hungary, Kyrgyz Republic, Ireland, Kazakhstan, Latvia, Lithuania, Luxembourg, Moldova, North Macedonia, Netherlands, Norway Romania, Serbia, Slovak Republic, Sweden Switzerland, Tajikistan, Ukraine, United Kingdom	Belgium, Ireland, Poland, Russia, Uzbekistan
Latin America & the Caribbean	Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines	Chile, Costa Rica, Cuba, Dominican Republic, El Salvador, Honduras, Mexico, Nicaragua, Panama, Uruguay	Argentina, Bolivia, Brazil, Ecuador, Guatemala, Haiti, Peru, Trinidad and Tobago, Venezuela	Colombia, Guyana, Paraguay, Puerto Rico, Suriname
Middle East & North Africa		Bahrain, Jordan, Malta, Lebanon, Morocco, Tunisia, United Arab Emirates	Algeria, Egypt Arab Rep. Iran Islamic Rep., Iraq, Israel, Kuwait, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Yemen Rep.	Libya
North America		Bermuda	Canada, Unites States	
South Asia	Maldives	Sri Lanka	India, Nepal, Pakistan	Bangladesh
Sub-Saharan Africa	Cabo Verde, Sao Tome and Principe, Seychelles	Botswana, Comoros, Cote d'Ivoire, Gambia, Lesotho, Madagascar, Mauritius, Namibia, Rwanda, Tanzania	Benin, Cameroon, Central African Republic, Ethiopia, Ghana, Kenya, Malawi, Mali, Mozambique, Niger, Senegal, South Africa, Sudan, Eswatini, Togo, Uganda, Zambia, Zimbabwe	Angola, Burkina Faso, Burundi, Chad, Congo Dem. Rep., Gabon, Guinea, Nigeria, Sierra Leone

The first and the main lesson from COVID-19 pandemic is that governments and other actors need to invest more in preparations for crisis responses. Countries now need comprehensive recovery strategies, which will be focused on sustainability and resilience. Short-term strategies serve as "instant help package" for countries, and they should include actions to deal with challenges such as:

- Maintaining liquidity and viability of tourism businesses, and preventing closures;

- Significant decline in tourist visits;

- Limiting the loss of jobs and skills from the tourism sector;

- Weak consumer confidence and sentiment to travel in domestic and international markets;

- Maximising demand in the domestic market;

- Ensuring that tourism businesses can adapt to social distancing requirements (e.g. through purchase and installation of additional hygiene equipment or installing online booking systems);

- Lack of air capacity due to suspension of air routes;

- Fall in demand for specific market segments or products (e.g. business travel or cruises);
- Reacting to the effects of possible successive waves of the coronavirus (ETC, 2020).

Once the border restrictions are lifted, it is necessary to harmonise travel safety protocols. Much of the tourism industry's post-COVID-19 success will depend on the robustness, quality and resilience of health and safety protocols that will inevitably govern the industry going forward (Kampel, 2020). This means that countries need to cooperate and exchange the information to harmonise the conditions and encourage the development of tourism. Financial packages will make a short-term solution, but as far as long-term plans are concerned, there is no perfect solution. Long-term recovery measures should focus on business support, developing new marketing campaigns or predicting future demand (ETC, 2020), while empowering domestic tourism as the main driver of the progress. Travellers will be more health-conscious in the future, so health and safety measures will be important if countries want to build the image of their destinations as "responsible tourist attractions". The UNWTO published a strategic guide for a responsible recovery of the tourism sector. It presents six lines of action: public health, social inclusion, biodiversity conservation, climate action, circular economy, as well as governance and finance (ETC, 2020).

According to the European Travel Commission, recovery strategies should include:

- Stimulating demand in the domestic market;
- Stimulating demand from neighbouring markets, easily reachable by road;
- Supporting tourism businesses in adapting to new social distancing and hygiene measures;
- Supporting businesses in sectors that had been particularly affected by public health restrictions or the decline in international visitors, such as the meetings industry, spas and wellness centres;
- Promoting products and experiences associated with nature, health & wellbeing, outdoor activities;
- Supporting DMOs with strategic guidance and funding in meeting the needs of local businesses and local communities (ETC, 2020).

National Tourist Organisations were interviewed about the differences in their strategic approach to tourism, and the results were presented in the Table 3 (ETC, 2020).

Table 3. Level of agreement with different strategic approaches to tourism in light of the COVID-19 epidemic (ETC, 2020)

Interview question / statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
COVID-19 is a turning point for making tourism in our country more environmentally friendly	11%	47%	16%	26%	0%
Rebalance of strategic priorities and budgets in favour of environmentally friendly/community-based initiatives	21%	32%	37%	10%	0%
Restore the levels of tourism arrivals to those seen in recent years	26%	37%	21%	11%	5%
Mass tourism will be essential to achieving the level of growth seen before	10%	0%	42%	16%	32%
Spend more resources on sustainable areas then traditional activities such as promotion	32%	5%	37%	21%	5%
Prioritising stimulus measures around certain sustainable tourism criteria	26%	37%	26%	11%	0%
Prioritise local destinations that need visitor spending the most	26%	11%	58%	5%	0%
Reduce / withdraw funding from sectors / businesses that are responsible for high carbon emissions	32%	0%	42%	16%	11%
Work with relevant stakeholders to find new ways to reduce the negative impacts of tourism	32%	53%	5%	5%	5%

3.2 Tourism in Ex-Yugoslavia Countries

In the countries of Ex-Yugoslavia, travel restrictions were imposed and all countries had different policies. It led to an increase in "staycations" and development of local tourism. Inbound Tourism directly contributes 15% to overall GDP of the Western Balkans, and it supports a multitude of jobs and industries, accounting for around 550 000 jobs in 2019 (RCC, 2020a). Consequentially, in line with global trends, there was an increase in "staycations" and development of local tourism, meaning some locations that were not highly known or popular

destinations attracted higher numbers of tourists.

The following tables present selected locations in Ex-Yu countries, some highly known (or "popular") and others less so, with the summary of the impact that the new COVID-19 tourism trends had on their "popularity", and the travel restrictions these countries put in place.

Table 4. BiH, travel restrictions, selected tourist destinations pre-COVID-19 popularity and impact of pandemic on visits

Country	Bosnia and Herzegovina (BiH)
Travel restrictions in place	The borders of BiH are open for foreigners given that they provide a negative PCR test no older than 48 hours, whereas citizens of Croatia, Montenegro and Serbia are allowed to enter BiH without any testing, provided that they are entering directly from one of these countries (OECD, 2021)
Location	Sarajevo, the Capital of BiH; a globally fairly well-known destination
Pre-COVID-19 popularity	Very popular: from January to July 2019, the number of tourist arrivals amounted to 358,906 and recorded an increase of 15.7%, compared to the same period last year. In the period from January to July 2019, the total number of tourist nights is a record 786,203 and records an increase of 30.2% compared to the same period (Sarajevo.ba, 2019).
Visits during the pandemic	Highly under-visited: the 2020 season can be considered a failure. Reservations of domestic and foreign tourists were cancelled. A total of 81.1% of respondents reported cancellations ranging from 61% to 100% (AlJazeera, 2020).
Location	Neum, a fairly popular summer location, sharing the Croatian coastline
Pre-COVID-19 popularity	Average popularity: especially when compared to the neighbouring locations in Croatia. It is a small coastal town with the capacity of around 7000 beds, and has gained popularity in recent years (VMO, n.a).
Visits during the pandemic	Highly visited: closed borders with Croatia and Montenegro resulted in profit for Neum, the only coastal city in BiH. Besides the locals, it became a popular location for tourists from Serbia (Dimitrijević, 2020).
Location	Jahorina, mountain where Winter Olympic Games 1984 were held
Pre-COVID-19 popularity	Growing Popularity: gained popularity in recent years. In 2018, a record number of almost 175,000 skiers was recorded; revenues from ticket sales reached more than EUR 2.5 million and exceeded revenues from the entire last season by 75%.
Visits during the pandemic	Highly visited: as many EU ski resorts remained closed due to the COVID-19 pandemic, tourists who had previously gone skiing to France, Italy or Austria flocked to Jahorina, which currently has significantly better booking than the previous season.

Table 5. Croatia, travel restrictions, selected tourist destinations pre-COVID-19 popularity and impact of pandemic on visits

Country	Croatia
Travel restrictions in place	Partially open for foreigners and foreign tourists, following traditional seasonal trends: open during high/summer season and closed during low/winter season.
Location	Dubrovnik; ancient city-state; a globally highly known destination
Pre-COVID-19 popularity	Highly popular: in 2019, about one and a half million more tourists visited Croatia than in 2018, recorded as a 5% increase in tourist arrivals. Dubrovnik is the most popular location in the country and the most visited city (Ministry of Tourism of Republic of Croatia, 2019).
Visits during the pandemic	Strongly under-visited: there was a drop in arrivals and overnight stays of as much as 66% (HrTurizam, 2020).
Location	Plitvice Lakes National Park, globally known destination
Pre-COVID-19 popularity	Constant popularity: in 2019, there was no excessive tourist influx in the most famous national park. In the first half of the year, 625,000 tickets were sold, the same as last year's first half (Kovačević, 2019).
Visits during the pandemic	Highly visited: from May 11 to 24, the Park registered more than 45,000 visitors, a record number. The maximum attendance in accordance with the prescribed measures and capacities was recorded (Prodan, 2020)

Table 6. Montenegro, travel restrictions, selected tourist destinations pre-COVID-19 popularity and impact of pandemic on visits

Country	Montenegro
Travel restrictions in place	Open for citizens, partially open for foreigners and tourism. Foreign nationals seeking to enter Montenegro need a negative PCR test for the SARS-CoV-2 virus taken within the previous 72 hours.
Location	Coastline; a well-known summer destination on Mediterranean coast
Pre-COVID-19 popularity	Highly popular: Montenegro is one of the fastest-growing tourist destinations, it has 3rd world ranking by the tourism growth in the 2018 forecast (WTTC, 2018a)
Visits during the pandemic	Under-visited: revenues of the tourism industry in July 2020 in Montenegro amounted to roughly EUR 10 million, while same month last year it amounted to EUR 280 million, which is a decrease of about 96 %. In July 2019, all types of accommodation registered 3.7 million overnight stays, while 2020 brought about 200 thousand.

Table 7. North Macedonia, travel restrictions, selected tourist destinations pre-COVID-19 popularity and impact of pandemic on visits

Country	North Macedonia
Travel restrictions in place	The Republic of North Macedonia has officially reopened for international tourism on July 1st, 2020 and is now allowing tourists from all countries, restriction free. In the first part of 2020, strict measures discouraged tourists
Location	Due to country's small size, mostly the Capital and Ohrid Lake
Pre-COVID-19 popularity	Stable Popularity: in 2019, North Macedonia received 1,184,963 tourist arrivals out of which 757,593 foreign. In recent years, it experiences a regular increase of visitors (MAKSTAT, 2019a)
Visits during the pandemic	Somewhat visited: guidebook company Lonely Planet has named North Macedonia as one of the world's best tourist destinations in 2020 due to its "untouched natural wonders"(Marusic, 2019). However, the number of tourists in North Macedonia decreased by 18.3% year-on-year in the first quarter of 2020 (MAKSTAT, 2021)

Table 8. Serbia, travel restrictions, selected tourist destinations pre-COVID-19 popularity and impact of pandemic on visits

Country	Serbia
Travel restrictions in place	Open for local tourists; partially open for foreigners and foreign tourists. Country-wide restriction measures.
Location	Belgrade the Capital of Serbia; a well-known destination
Pre-COVID-19 popularity	Highly popular: the number of tourists in Belgrade in the period January-November 2019 was 1,107,694. Out of that, there were 943,280 foreign tourists (RZSS, 2020).
Visits during the pandemic	Under visited: due to strict restriction measures, during 2020, a total of 1,820,021 tourists stayed in Serbia, 51% less than in 2019. In the same period, foreign tourists realized the most overnight stays in Belgrade, 576,687 overnight stays, or 73% less than in the period January-December 2019. (Danas.rs, 2021).
Location	Zlatibor mountain; regionally well-known summer destination
Pre-COVID-19 popularity	Popular: The index of tourist visits and overnight stays on Zlatibor was growing. In the first five months of 2019, registered 8.7% more arrivals than in the same period in 2018, while the number of tourists who visited Zlatibor in May was higher by as much as 14.6% compared to last year (Pesic, 2019).
Visits during the pandemic	Highly visited: Zlatibor was the most visited mountain in Serbia in the first eight months of 2020, with 491,000 overnight stays. Greater popularity is expected in the winter season 2020/2021.

Table 9. Slovenia, travel restrictions, selected tourist destinations pre-COVID-19 popularity and impact of pandemic on visits

Country	Slovenia
Travel restrictions in place	Entry to Slovenia is permitted with no restrictions and quarantine from countries that are on the green or orange list with no border crossing limitations. People coming from countries or territories on the red list are subject to 10-day quarantine unless they submit a negative COVID-19 test.
Location	Small size and mostly Natural locations narrow the case study
Pre-COVID-19 popularity	Stable Popularity: in 2019, 6.2 million tourist arrivals and 15.7 overnight stays, which is 5 % more arrivals and 0,5 % more overnight stays than in 2018 (Republic of Slovenia Statistical Office, 2019)
Visits during the pandemic	Somewhat salvaged: In July 2020 tourist accommodation establishments recorded a rapid growth in tourist overnight stays compared to previous months of 2020; while domestic tourists generated almost 1.4 million overnight stays, foreign tourists generated slightly over 670,000. Still, tourism in 2020 fell for about 50%. (Republic of Slovenia Statistical Office, 2021)

3.3 Ex-Yu Countries Tourist Overnight Stays: Global Pandemic Data

Concerning the Ex-Yu countries, several of them had lockdowns in different months, so while the overall data trends follow the global fall of inbound tourists, individual months are directly conditioned by lockdown measures. Also, regarding domestic tourists, one would expect the trends to follow other countries, but, unfortunately, only several countries had a proactive campaign to promote local destinations, other countries are a reflection of a more "organic", self-generated recovery, thanks to local freelancers and small local tourist agencies that quickly adapted to the new market conditions. While there are considerable difficulties in collecting data during the pandemic, the relevant ministries and statistical bureaus have published some reports, mostly until November 2020. The data concerning domestic and foreign visitors, or overnight stays, depending on availability, has been reported here, with the purpose of illustrating the impact that COVID-19 pandemic has on Ex-Yu countries tourism trends. Some graphs are extracted from official reports that offered them while others have been pieced together from monthly data in statistical databases.

The following graph on 2019-2020 tourist overnight stays month-by-month comparison (Figure 1.) for BiH has been constructed based on data obtained from Bosnia and Herzegovina Agency for Statistic report (2021a).
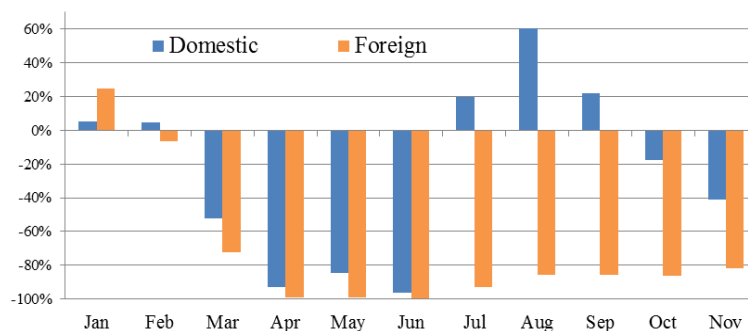
Figure 1. BiH 2019-2020 overnight stays fluctuation, month by month, in percentages

Observing the foreign overnight visitors trend, an almost complete halt of visitors is noted in April, May and June, when major lockdowns were in place across Europe, including BiH. The numbers picked up a little during the summer months, with first openings, but barely reached 10-15% of 2019 values. Domestic overnight stays, on the other hand, while following the total local lockdown trend, did pick up greatly during the summer, after the lockdown was lifted, outperforming 2019 by 60% in August. Unfortunately, it must be noted that there was no recovery mechanism or promotional plans by the Tourism boards or any involvement and merit by the government. These positive growth numbers can be explained by 2 main factors: 1) spontaneous "stayvacations", especially given BIH's small population density and availability of natural destinations, minimizing Health & Safety risks and self-reliant freelancer guides maximizing their effort to survive the economic hardship brought by the pandemic and being flexible to last minute, small number, out-door tours; 2) BiH locals prefer to travel abroad during the summer, therefore the lockdown accentuated the gap with 2019. The autumn period is not favourable for outdoor activities except for passionate hikers and mountaineers, therefore the strong reduction in domestic overnight stays is justified.

It is clear that Croatia is very heavily dependent on foreign tourism and majority of population along the coastline lives of tourism. Croatian Tourism Bureau is proactive and there are constant promotional campaigns. Croatia also had a moderate success in promoting local tourism in 2020. According to the Tourism Board data, Croatia achieved 7.8 million arrivals in 2020, roughly 37% compared to 2019, and 54.4 million overnight stays, around 50% of 2019's total. Foreign tourists were 43.1 million (45% compared to 2019) while domestic tourists accounted for 11.3 million overnight stays or 82% compared to 2019. The director of Croatian Tourist Bureau, Kristjan Staničić, in an interview, attributed this success to the "Croatia full of Life" and "Croatia full of Magic" campaigns and announced a new campaign for 2021: "Croatia Full of New Beginnings". Croatia's 2019-2020 tourist overnight stays month-by-month comparison graph has been extracted from Croatian National Tourist Board (2021) and proposed here (Figure 2).
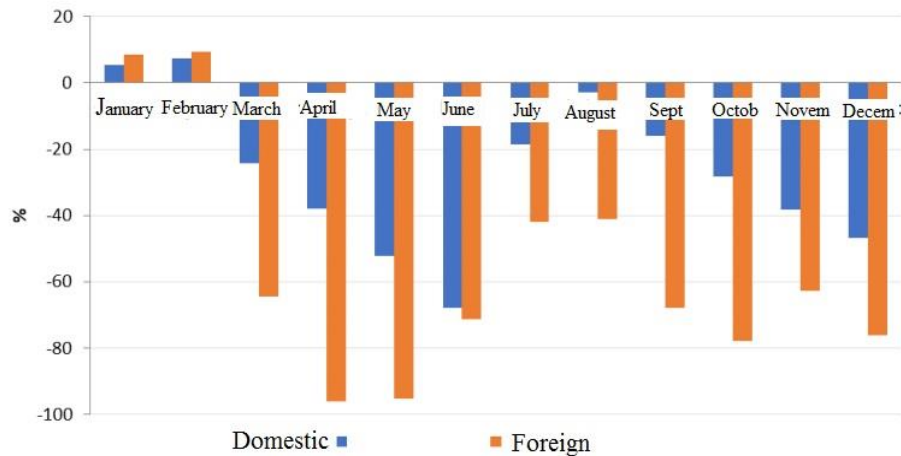
Figure 2. Croatia 2019-2020 overnight stays fluctuation, month by month, in percentages

From the graph, we can see how the domestic overnight stays almost reached previous years' values, while foreign overnight stays plummeted heavily. By considering data from previous parts and understanding the volumes and significance of foreign tourists for Croatia, these results actually constitute quite a success in curbing the damage brought by the April-May lockdowns. It would not be wrong to affirm that Croatia's 60% of 2019's August 25 million visitors still equals more than 10 times the total of other five Ex-Yu countries. Since Croatia is mostly a summer destination, and with new travel restrictions in place, the reduction of foreign overnight stays is quite expected. Domestic overnight stays trend is also logical. While it follows the lockdown curve, the percentages indicate the local population was practicing "staycations. The lack of summer spike, which is found in BiH, for example, is easily explained by the fact that locals tend to stay put in summer given their heavy reliance on employment in tourism economy. In fact, the peak high season values are almost identical to 2019. Overall, considering the regional pandemic trends and several lockdowns, Croatia's effort in targeting both locals and foreigners has been quite fruitful.

The Figure 3. shows Montenegro 2019-2020 tourist overnight stays.
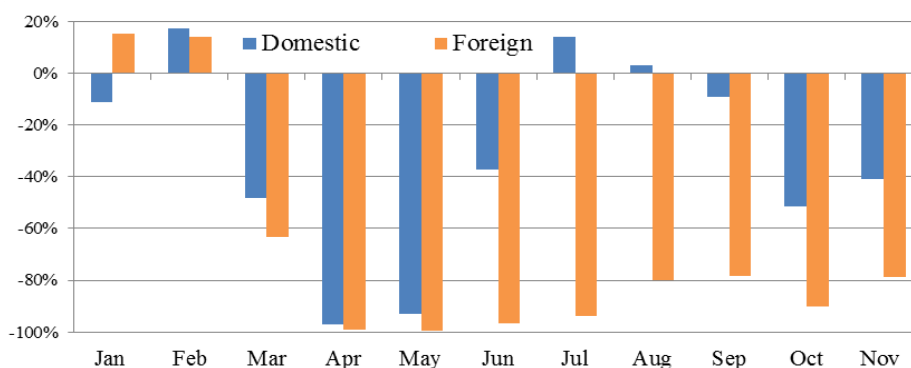
Figure 3. Montenegro 2019-2020 overnight stays fluctuation, month by month, in percentages

The month-by-month comparison has been constructed based on data obtained from Montenegro Statistical Office monthly reports (MONSTAT, 2021). Montenegro has had quite a critical scenario during the April-May lockdown, since the pandemic was not handled very well by the government. There was no particular effort to promote tourism abroad, and the slight improvements during summer are simply the reflection of the fact that Montenegro did not require any sort of COVID-19 testing of tourists from neighbouring countries. Since Montenegro is mainly a summer vacation destination and it shares the coastline with Croatia, it makes sense that the trends of two countries are somewhat similar in domestic overnight stays, since in summer the local population is mostly involved in tourism economy. Also, Montenegro's total population in 2019 was 622,140, so that 10% increase in 2020 August domestic overnight stays actually translates as several thousand visitors margin.

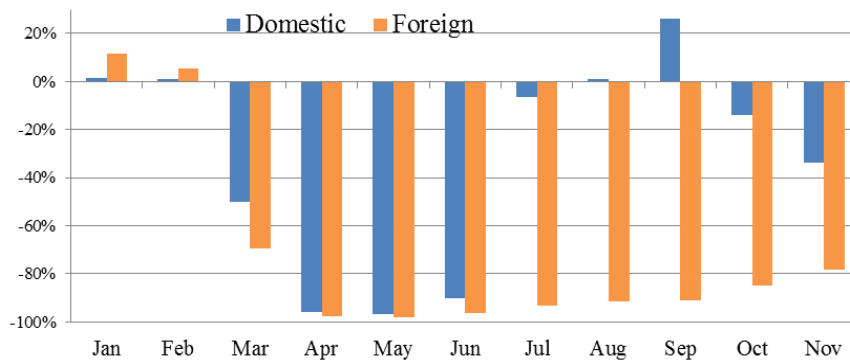As the case with Croatia, the overall reduction in both domestic and foreign tourist in autumn was to be expected.

Figure 4. N. Macedonia 2019-2020 overnight stays fluctuation, month by month, in percentages

N. Macedonia's graph on 2019-2020 tourists overnight stays comparison, month-by-month (Figure 4.), has been constructed based on data obtained from North Macedonia State Statistical Office (MAKSTAT, 2021). Observing the above graph, it is clear how N. Macedonia has suffered the April-May lockdown even more than other countries. In fact, N. Macedonia's June has also seen only 5-10% of 2019's overnight stays. Since it is not a very popular destination, and there were no particular programs to promote the tourism abroad, foreign overnight have remained at all-time record lows. Interestingly enough, the domestic tourism picked up during summer, much similar to BiH scenario.

On one side, N. Macedonia has natural and outdoor tourism resources and population density similarities to BiH; on other side, in June, N. Macedonia's government did provide stimuli to local tourism. The Minister of Economy, Kreshnik Bekteshi, announced the launch of the platform "Home is home," with the list of citizens who can receive vouchers to encourage domestic tourism (Sloboden Pecat, 2020). To aid the hotel industry, activities related to trainings, conferences, and seminars in domestic hotels were encouraged. Events and conferences were co-financed by 50 percent of the costs or up to 30,000 Macedonian Denar (about 549 U.S. dollars) per applicant. Overall, N. Macedonia has managed to mitigate the impact to its tourism economy in areas where it had some control, i.e. domestic tourists, while the situation with foreign tourist remained critical across the entire 2020, picking up slowly towards the end of the year, since the lockdown measures eased.

Serbia 2019-2020 tourist overnight stays data (Figure 5.) is obtained from Statistical Office of the Republic of Serbia (PBC, 2021).
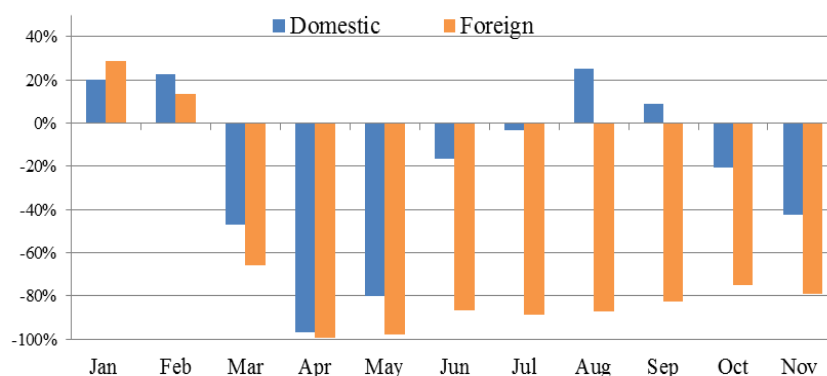
Figure 5. Serbia 2019-2020 overnight stays fluctuation, month by month, in percentages

Serbia's trends are quite similar to the ones of its neighbouring BiH, Montenegro and N. Macedonia. April-May lockdown has taken its toll, with plummeting numbers in both foreign and domestic overnight stays. The foreign tourists numbers hardly improve, averaging a negative growth of 80% compared to 2019. Serbia is not a popular summer destination, so this kind of scenario was to be expected without some degree of heavy investment,

promotion and government support for travel and tourism marketing campaigns, as was the case in Croatia. Similar to its neighbours, the domestic numbers go up once the local lockdown is lifted, with summer values that see a positive growth, again for reasons similar to BiH: Serbia is not really a popular summer destination and its population usually travels abroad; with borders closed, the travellers that would travel abroad are forced to travel locally, accentuating the gap with previous year. Director of Tourism Association of Serbia, Marija Labović stated that villages, mountains and spa destinations were highly popular, resulting in high number of domestic visitors, with some locations being fully booked and added that focus on domestic tourists as TTG is vital for the next year (RTS, 2020).

Slovenia's data on 2019-2020 tourist overnight stays (Figure 6.) has been obtained from Republic of Slovenia Statistical Office (2021).
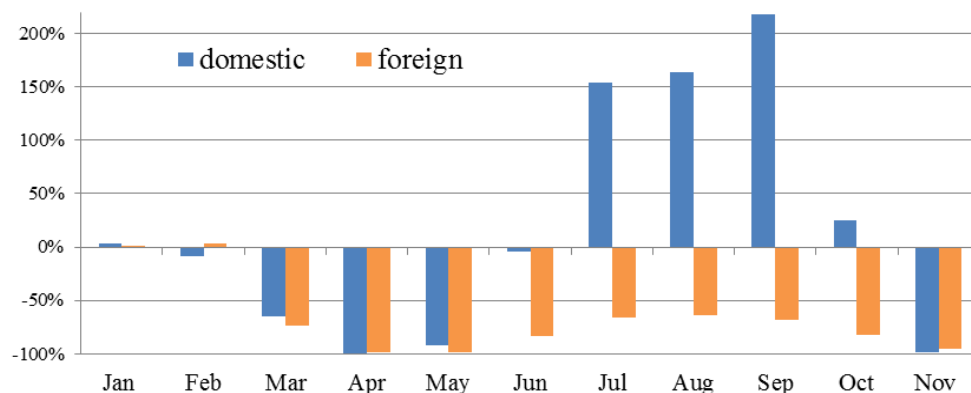
Figure 6. Slovenia 2019-2020 overnight stays fluctuation, month by month, in percentages

Slovenia has a similar trend to Croatia's in regards to foreign overnight stays trend. The total lockdown in April-May all but deleted inbound tourism. Summer values have picked up, reaching values of roughly 40% of 2019. This is also relatable to Croatia, given the two countries' vicinity and Slovenia's geographical position that favours visitors from central EU. As for the surprising spike in domestic overnight stays after the lockdown, it is probably the merit of strong promotional campaigns and stimuli towards the local population. Slovenia, similarly to Croatia, has a developed tourism economy with solid content and high-quality attractions.

On 14 May 2020, the Slovenian Tourist Board (2020) presented the Slovenia-wide promotional campaign "The Time is now. My Slovenia", inviting Slovenians to spend a short or long holiday at their nearest destination in Slovenia, while discovering its hidden nooks and crannies and experiencing exceptional adventures and the hospitality of domestic tourism service providers. The campaign is being carried out in cooperation with many partners: the tourism industry, destinations, key institutions of Slovenian tourism, product associations, ambassadors and influential individuals, the media and other institutions.

Government stimulus was also an important factor, as Slovenia rolled out seven packages in 2020. In December, Economy Minister Zdravko Počivalšek stated that the way forward will be outlined in the 2020-2023 recovery plan and that shareholders are also coming up with projects to draw on EU funds, concluding that the sector will return to record-breaking results (STA, 2020).

Among ex—Yugoslavia countries the case of Slovenia can be considered the most fitting one, as it checks all steps, from acting within travel constraints brought about by COVID-19 pandemic, identifying suitable, less known locations and attractions for potential domestic tourists, while setting up a branding campaign and coordinating with all relevant actors and interest holders on the territory.

From the above tables, it can be observed how across all Ex-Yu countries there, all of the well-known destinations suffered to some degree, because of the pandemic; some locations managed to "salvage" a part of high season, either thanks to government stimuli or to organic effect of "stayvacations", or the combination of both. Nevertheless, it is clear how the level of pre-COVID-19 popularity of a location does not play a major role in the pandemic scenario. Therefore, new approaches are necessary in order for DMOs to adapt to the post-pandemic scenarios, which will surely contain elements of the new tourist trends as the "new normal".

3.4 International Best Case Practices

According to "Interreg Europe" (2020) report, the Province of Teruel (Aragón, Spain) revised its "Strategy for

sustainable tourism" in April 2020, to comply with the new reality imposed by the coronavirus outbreak. The Province used all flexibilities provided by its budget and scrapped activities that would not be compatible with prevention measures, offering a rather quick and effective response to mitigate the effect on local tourism. The revised strategy included: storytelling - for increasing the attractiveness of the Province as a safe destination; enhanced promotion of the El Cid cultural route – a usually less beaten track; marketing of sustainable locally sourced products; discounts of 30 € on 3,000 overnight stays – to incentivise proximity tourism; measures to 'put on the map' villages with less than 500 inhabitants – normally overlooked by tourist flows; partnership with restaurants and local media outlets. Provisional data indicate that, despite the pandemic, small hotels and rural houses scored good reservation rates in the first part of the touristic season. The approach adopted by local policymakers helped their businesses to cope with the new circumstances.

Tourism New Zealand (2020) has launched a "Do Something New, New Zealand!" campaign in May, costing AUD 500.000. Focus is on "staycation" deals, discounted nature experiences and incentives to visit local attractions. With New Zealand's border closed to nearly all foreign arrivals since March, sites and attractions typically popular with first-time visitors such as Franz Josef Glacier and Milford Sound have recorded a huge decline in visitors as international arrivals fell from -99% to 100% in April (Ministry of Business, Innovation and Employment, 2020). Regions with driving distance of major cities – including Northland, Coromandel and the top of the South Island – have seen high growth as New Zealanders responded to the government's call to support the struggling tourism industry and "see your own back yard". The "Great Walks" were also proving popular over the summer, with the occupancy rates of the Department of Conservation-managed huts for hikers' overnight stays along the trails averaging 83% full, and Tōtaranui becoming the country's most popular campsite. More than 42,000 overnight stays had been booked from early December to the end of February. Tourism NZ has released scenario modelling of the recovery of Aotearoa's tourism industry which projects an increase of 118% in locals travelling around the country in January 2021, compared to 2020.

In Singapore, to help cushion the blow to companies and avoid massive job losses in the tourism sector, the Singapore Tourism Board (STB), Enterprise Singapore and Sentosa Development Corporation teamed up with industry to encourage locals to rediscover Singapore, launching a nine month-long domestic tourism campaign in June, costing USD 45 million (STB, 2020). The main points are: partnering with local communities to help locals discover hidden gems; curating precinct itineraries to create authentic experiences for locals; collaborating with hotels, tour operators, attractions and precincts to develop quality experiences and attractive promotions. Precincts will be packaged as mini-holiday destinations, where locals can embark on a "Singapoliday" to enjoy the many experiences and promotions within.

At the same time, other countries are opening their borders and promoting safe tourism. The United Arab Emirates managed to create a sustainable strategy for tourism and its gradual recovery. In summer 2020, it opened its borders for international tourists, while maintaining high safety and health standards (Elborno, 2020). The government set up the Emirates Tourism Council, which will create a unified domestic recovery strategy for tourism economy. They launched the "World's Coolest Winter" the 45-day campaign, which aims to attract tourists to explore attractions in the country at the beginning of 2021 (Emirates News Agency, 2020).

Turkey is among the countries which opened their borders early. There are specific hygiene measures, so plenty of tourists choose Turkey for their vacation. According to the OECD, the following measures are in place in Turkey to support tourism businesses in the COVID-19 crisis:

- Bank loans are provided for reimbursement of advance payments for early bookings.

- Social Security payments are postponed for 6 months.

- Ministry-certified travel agencies are allowed to work online without opening their workplaces, until the end of April.

- The debts of tourism facilities located on public lands were delayed for 6 months.

- The activities of day-trip excursion boats, certified by the Ministry of Culture and Tourism, were stopped.

- The schedule to submit the relevant documents to obtain a Certificate from the Ministry of Culture and Tourism to open service and tourism establishments is frozen for tourism investments located on public lands with a due date of 1 April 2020.

- Swift bank loans offered for small-scale tourism agencies without need of repayment for 6 months.

- The accommodation tax in hotels and tourism facilities is waived until November 2020 (OECD).

Such measures boosted the economy, helped the recovery of the industry and left a confident impression on tourists, who decided that Turkey is a responsible tourist attraction. This example can be applied in other countries whose economy is highly dependent on tourism economy.

4. Discussion

The previous data shows a clear picture of the tourism industry in Ex-Yu countries in the period when they were affected by the COVID-19 pandemic, as well as examples of countries that have found functional mechanisms to help their economies while coping with the virus. This proves the hypothesis that effective strategies are necessary to recover from the negative effects of the pandemic on tourism economy. Currently, traveling is becoming increasingly localized and complicated, so international organizations suggest developing long-term plans for the industry's recovery. Although it will take a long time for the industry to return to pre-COVID-19 situation, short-term strategies do not provide enough support for the economy, but they should not be completely neglected. They can serve as "first aid" until long-term strategies are developed.

The results of a research done by Fotiadis, Polyzos & Huan, give predictions on the future outcome for the industry. "In terms of policy, our predictions suggest that the crisis is far from over in the tourism sector. Without a medical solution to the pandemic, tourists will be reluctant to travel, despite the protective measures taken by transport and hospitality companies. The current tourist season should be counted as an almost total loss for the industry, since the drop for the current year currently exceeds 98%. Our forecasts for the coming months show a drop of around 50% in December 2020, compared to the previous December, while predictions in some of our scenarios for June 2021 are even graver" (Fotiadis, Polyzos & Huan, 2021). „Going forward, it would be crucial for the governments and marketing firms to undertake research to analyse the effects of the current catastrophe on the industry (Min et al., 2011). This research too makes a case for raising awareness to view this pandemic as a wakeup call to prepare for the aftereffects. Going forward other highlighted aspects in the current study such as change in travel and dining habits, careful spending, need of adaptability, market research, leadership roles, population issues would be critical in preparing industry and stakeholders" (Kaushal & Srivastava, 2021). After the pandemic, businesses will undoubtedly rethink their business strategies in light of the losses experienced and potential market conditions. And why are these changes necessary? In order to be able to continue in the direction of development, governmental and international organizations, as well as private businesses, need to make a sustainable strategy towards industry so that it does not collapse again, as in this case. Strategies at different levels should be coherent and complementary. This opinion is supported by Fotiadis, Polyzos & Huan (2021): „The persistence of this crisis, as signified by our predictions, suggests that firms in the tourism sector will need to re-evaluate their business models to incorporate for the reduced demand and increased costs. The new status quo, which will linger for at least a year based on our predictions, suggests that profitability in the industry needs to be re-evaluated and new tourist products may need to emerge, reshaping the sector. These changes may be temporary or may persist even after the crisis has passed. As a response, authorities will need to subsidize the protective measures they propose in order to support tourism, especially in countries where tourism revenue contributes highly to GDP. Government subsidies on these measures will also help confirm that the measures will be implemented as they are planned by medical professionals, since poor or scanty implementation can have the same detrimental effects as no implementation, with the added cost of false security. It is important that the tourist sector embraces medical guidelines as they represent the shortest path out of the current crisis." The proliferation of COVID-19-related tourism offers a range of opportunities to research and better understand this phenomenon in new and different ecosystems, stakeholders, and circumstances. In essence, a hitherto unseen approach is needed that gives industry researchers the freedom to propose unconventional solutions, given that the traditional approach proved as dysfunctional in a crisis situation such as COVID-19 pandemic. This serves as a wake-up call, which requires completely creative approaches, which are especially lacking in Ex-Yu countries.

Best-case practice examples show that they have adapted to the situation on the ground. Various factors influence tourists to choose locations they consider safe: there is a high level of hygiene, an easy way to enter the country and precise instructions on the epidemiological situation. Spain, New Zealand, Singapore, the UAE and Turkey are some examples of countries that have responded promptly to the crisis and found a strategy that will nevertheless ensure a certain level of success for the tourism industry in the pandemic times. It is clear that these states will have an easier long-term recovery.

On the other hand, Ex-Yu countries that have localized tourism to predominantly domestic ones will face the challenge of becoming internationally attractive destinations again. Each country's 2019-2020 domestic and foreign tourists growth data is presented in a series of graphs. All six countries experienced negative growth in both domestic and foreign tourist at the beginning of the COVID-19 outbreak in March, followed by an almost

complete halt in April and May 2020, due to the national lockdowns that took place across Europe, with several countries reaching 100% negative growth in foreign visitors. Foreign visitors remained in strong negative growth across the rest of the year, after the lockdown was somewhat eased, with "high season" ranging from N. Macedonia's -90%, over BiH's and Serbia's -85%, Montenegro's -80% to Slovenia's -60% and Croatia's -40%. The explanation behind Slovenia's and Croatia's relative success in fighting the negative growth was their geographical position within EU and various "Covid-free" (no infection chance) solutions for foreign tourists. In case of Croatia, the director of Croatian Tourist Bureau, Kristjan Staničić, in an interview, attributed this success to the "Croatia full of Life" and "Croatia full of Magic" campaigns and announced a new campaign for 2021: "Croatia Full of New Beginnings". Domestic visitors, however, presented a completely different trend during the high season, across all 6 countries. After the almost complete halt in April-May lockdown, the growth picks up and moves to positive values for several countries. Croatia stays in negative growth, peaking at -2% in August, followed by Montenegro's 18% in July; N. Macedonia's peaks at 22% in September and Serbia in August at 25%; BiH reaches a solid 60% in August, while Slovenia peaks at astonishing 220% in September. The explanation behind Croatia's and Montenegro's lack of significant domestic tourist growth, also relative to other Ex-Yu countries, could be explained by their strong reliance on tourism economy, therefore the local population would seek employment in high season, instead of travelling, especially during economic crisis. Other countries recovery is explained mostly by "organic" growth, with local populations naturally following the newly emerging trends, i.e. "stayvacations". Slovenia's extraordinary growth was also supported by the Slovenian Tourist Board (STB, 2020) via the promotional campaign "The Time is now. My Slovenia", inviting Slovenians to "stayvacations" at nearest destination in Slovenia, and via government stimulus, as Slovenia rolled out seven packages in 2020.

5. Conclusion

The study focused on the global pandemic that halted the world during 2020 and the tremendous impact on tourism economy. Only in the first half of 2020, the international tourist numbers were down by 65%, with arrivals in June plunged 93% when compared to 2019. Even the SARS epidemic in 2003 and global economic crisis in 2008-2009 had a tiny fraction of the COVID-19 impact. The estimate is that current numbers fell back to the values before 1990. More optimistic analysis and reports, looking towards scenarios of recovery, estimate that more than 100 million jobs could return to the global travel and tourism sector during 2021, although this would still be 17% below 2019 figures. The point of recovery should be put to 2019 levels only in the year 2023 and "catching up" to pre-pandemic projections of future growth only in 2026. Global tourism expenditure may be up to $8.1 trillion lower than previous predictions following the implication of COVID-19.

Modified behavioural trends in tourism emerged during the pandemic, categorized as follows:

1) Health & Safety: measures and cancellation policies are consumers' main concerns;

2) Mobility: domestic tourism has shown positive signs in many markets since people tend to travel closer. Travellers go for "staycations" or vacations close to home;

3) Last-minute bookings have increased due to volatility of pandemic-related events and the travel restrictions;

4) Nature, Rural Tourism and Road Trips have emerged as popular travel choices due to travel limitations and the quest for open-air experiences;

5) Demographics shift: travel recovery has been stronger among younger segments. "Mature" travellers and retirees will be the most impacted segments;

6) Sustainability: authenticity and "localhood", travellers have been giving more importance to creating a positive impact on local communities, increasing looking for authenticity.

These trends can be considered consequentially chained to the pandemic, i.e. the pandemic causes Health & Safety concerns, which, along with lockdowns, shift focus on Last-Minute, Nature, etc.

Ex-Yugoslavia countries tourist overnight stays during the global pandemic are in the focus of second part of the study. Tourism economy in these countries was strongly affected by the pandemic. After analysing this information, it is clear that creating the right strategy is the main driver of recovery of tourism economy. This pandemic has left such an impact on this industry, that it will be a challenge to overcome the consequences, some of them for years to stay. Following the example of good practice can help the countries to improve their short-term and long-term strategies. As a conclusion, international organisations and national governments should focus on recovery strategies which will rebuild the industry in the shortest possible period. The crucial condition is that the pandemic is over, but it is not too early to create short and long-term plans.

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The Impact of the Financial Performance on Capital Structure of Insurance Industry in Egypt

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Abstract

This paper attempts to investigate the impact of the profitability and liquidity on capital structure of insurance industry in Egypt as applied on a sample of (19) insurance firms represented in the Egyptian insurance industry over the period from 1999-2019. The capital structure is measured by debt ratio, and the financial performance is measured by (liquidity, return on equity, and retune on investment).The study results show that there are significant negative linear relationships between the independent variable in terms of return on equity (X_1), return on investment (X_3), and dependent variable for the capital structure (Y) at the level of significant less than (0.001); based on panel data analysis, the results show that Tau-statistic, and z-statistic, are at a significant level less than (0.05).The statistical conclusion is the null significant relationship between the capital structure and liquidity, while there is a significant relationship between the capital structure, return on equity, and return on investment. The results also show that the R^2 for the independent variables are accepted in the model (capital structure Y, lag Y_1, return on equity X_1, liquidity X_2, and return on investment) by (79.3%) from total variation of capital structure (Y).

Keywords: capital structure, liquidity profitability (ROE and ROI), panel data analysis

1. Regulatory and Managerial Constraint

1.1 Solvency Regulation

Egyptian Financial Regulatory Authority issued Law No. (10) For the year 1981, this was amended by Law No. (91) For the year 1995, and by Law No. (27) For the year 2008. clause (14.1) of the Law states that the source capital of the insurance company should be (60) million Egyptian pounds, and the paid-up capital represents 50%, and the remainder to be paid over five years period. However, if we look closely at the legislations, we will find that the government legislations dominate the financial structure of insurance companies, and that is clear in the government intervention by granting or withdrawing the licenses, for example, Clause (62) of the Egyptian law No. (10) For the year 1981 is dedicated for this purpose. As for the modern economic theory, the financial solvency analysis has been identified in two aspects: the capital and others related to pricing "Seth Chandler 95".

1-Kenny asserted that the proportion of the relationship between premiums and capital to be in the range of 2: 1, if the proportion rose to 3: 1, the Insurance Regulatory Information System of America "IRIS" will step to withdraw the license, (Gordon & Kajiji 2004).

1.2 Liquidity Constraints

Capital structure has a special importance, and accordingly, clause (28) of the Egyptian Law (10) for the year 1981identifies how to allocate and invest funds:

1-   The ratio of the purchased government securities, and secure certificates to paid capital at least 25%

2-   The ratio of shares to paid capital is 10 %

3-   The ratio of the bonds to paid   capital is 10 %

4-   The ratio of the investment in Real Estate to paid capital is 10 %

5-   The ratio of the grants differences to guarantee   commercial mortgages to paid capital is 10 %

6-   The ratio of the mostly cash to paid capital is 50%

7-   The ratio of the mostly other investment approved by the regulator to paid capital 10 %

2. Literature Review

Theoretical back ground

Modigliani& Miller 1958 ,presented the classic theory of capital structure; at first, they claimed in their first proposition there is no relationship between the capital structure decision ~~with~~ the firm value and future performance under some unrealistic assumption of perfect market, the absence of bankruptcy and tax ,but lately in their second proposition M& M 1963 , under the assumption of the imperfection market with the existence of tax subsides of interest payment , they asserted that there is a relationship between the firm value and the capital structure and future performance . Jensen and Meckling1976,demonstrated that agency cost reducing the debt financing, and the agency cost associated with the separation of ownership and control. They focused on the conflict between the managers and shareholders, as well as the conflict between the debt holders and shareholders. Ross 1977, presented a signalling effect approach which was based on asymmetric information under the assumption that the managers in trying to maximize their benefits, they will affect the financing decision process. Mayer 1984, presenting the pecking order theory, that firms prefer financing their needs from internal resources, and they adopt their dividend pay-out according to their investment opportunities. Based on this analysis the target debt ratio is not existing, but financing their capital structure upon their costs.

Capital structure

Aamer Shahzad& et al (2020) this study attempts to determine the capital structure in the south Asian region countries; the result shows that there are significant relationships between capital structures with the liquidity, profitability, tangibility, size, economic growth, stock market development. The result shows that there is a significant relationship difference across countries and debt maturities. Merugu Venugopal & Ravindar Reddy (2016), the results show that there is a positive direction relationship between the capital structure (debt/equity ratio), and the firm's profitability, shareholder, and market value. But statistically, there is no significant relationship between capital structure and profitability. Mercy Mandela (2016), in his article discussed the effect of capital structure on efficiency in insurance firms in Kenya. The findings indicate that the profitability and liquidity have positive effect on the firm efficiency, whereas the size of the firm and the leverage (debt ratio) are insignificant determinants of the firm efficiency. Nader Abler &Iman Youssef (2020), the findings indicate that there are positive significant relationship between the firm size, inflation, asset tangibility, stock market development, and capital structure across country under the study, but profitability has a negatively significant relationship between and capital structure. Also, the GDP growth is not uniform across the four countries under the study, as it is positively significant except for Egypt which has a negative relationship. Jules van Binsbergen& et al (2011), this study sought through using cost and benefit function to estimate the optimal capital structure, and the findings showed that the average at capital structure is 4% - 13% of the firm's value.

Profitability

Michael Njogu Wahome &et al(2015), the results show that, there are three factors (profitability, firm size and firm risk) that indicate very significant moderating impact of capital structure decisions in Kenya. The result in line with the Kenya situation whereas the financial sector in Kenya is heavily regulated just like elsewhere in the world. Mohannad Almajali and Zelhouda Shams din (2019), the findings indicate that there is a significant relationship between capital structures with the profitability of the Jordanian insurance companies, and the model analysis for the correlations is used to determine the functions relating to profitability (return on equity (ROE)) and Tobin's Q, on the capital structure (Short term debt, Long term debt and Equity). In addition to that, sales growth and the inflation rate are used as control variables. Besides, the results show that the relationship between the Standard Deviation and Long Term Debt are positively correlated with the (ROE) ,whereas negatively correlated with Tobin's Q, ETQ is positive correlated with all profitability; results also show that financial leverage is positively significant to profitability. Nasser Najjar and Krassimir Petrov(2011), the study result shows that there is a strong relationship between firm characteristics (tangibility of assets, profitability, and firm size, revenue growth, liquidity, and observed capital structure) as representing the capital structure measured by the Debt Ratio, although profitability and revenue growth are insignificant and require a further study. Radhi Abdul HalimRachmata, et al (2019), the finding indicates that there are significant relationship between the Capital structure on profitability and Firm value. Osuji Casmir &Odita Anthony(2012), identified that there are negatively significant relationship between capital structure measured by (debt ratio) and the financial performance measures (return on asset, ROA, and return on equity, ROE). Tokunbo S. Osinubiet al (2019) investigated the impact of the financial leverage on the cost of debt, equity, WACC and the firm value in oil and gas companies in Nigeria; the finding indicates that the financial leverage has significant effect on cost of debt, cost of equity WACC and firm value .CindeRirihWindayu(2016) in his study investigated the relationship

between size of the firm , sales growth , asset structure operating leverage , profitability, the characteristic/ type of industry , and the non-debt tax shield on capital structure. The findings indicate that there are many factors simultaneously affect the capital structure (size of the company, the characteristics / type of industry, sales growth, asset structure, operating leverage, Non-Debt Tax Shield and profitability). The size of the firm, industry characteristics, sales growth, asset structure and profitability are partially impacting on the capital structure, whereas the operating leverage and non-debt tax shield have no impact on the capital structure, as well as the Leverage operation has no effect on the capital structure. Muhammad Ashraf and et al (2017), the purpose of his study is to analyse the impact of capital structure measured by (long term debt, short term debt ratio interest coverage ratio and debt / equity ratio) on firm's profitability measured by (Return on Asset, Return on Equity). The findings indicate that long term debt and debt ratio have negatively significant relationship with the return on asset (ROA) and return on equity (ROE), when short term debt has a positively significant relationship with ROA and ROE. Roger J. A. Laeven & Enrico C. Perotti(2010), the results show that the return on equity has a negative effect on total debt-equity, whereas there is a positive relationship between ROE on the debt ratio. Also the results show that the earnings before tax-sales ratio affect the return on equity negatively, whereas quick ratio has a positive effect on return on equity. Likewise, the operating profit-sales ratio has a negative relationship with liquidity. Finally, there is a negative relationship between the liquidity and profitability. Daniele Monteforte &RaffaeleStagliano (2014) study investigates the correlation between the product diversification, international diversification on capital structure for a panel medium and large Italian firms ; the results show that there is negative significant relationship between product diversification , international diversification, and capital structure, but individually the relationship is significantly positive with capital structure. Hussin A. Abdou (2012) in his study sought to examine the key factors which determine capital structure in UK retail industry; the findings indicate that there is no significant effect between the asset growth, annual sales growth, business risk and market to book value on the capital structure. Also results show that there is a negative significant relationship between profitability, net operating profit margin, and the capital structure, but there is a positive relationship between depreciation ratio and financial leverage. Ngatemin, Azhar Maksum & Erlina, Sirojuzilam (2018), the results show that there is a positive relationship between growth asset, ROE , debt/ asset ratio and institutional ownership, and the value of the firm. Besides, there is a negative relationship between the firm size and the firm value. T-test result shows that: the ROE and institutional ownership have significant impact on value of the firm, but there is no significant relationship between the growth asset and the value of the firm, while the firm size influence the value of the firm. Whereas the firm size has a negative relationship with the firmvalue. Yung-Ming Shiu (2011) the finding indicates that a positively significant relationship between financial leverage and reinsurance purchases, as well as reinsurance hedge, but there is a negative significant relationship between financial leverage, interact derivative , and reinsurance. Ayad S. Sultan1 & Mustafa H. M. Adam (2015) the study results show that the capital structure positively significant on the profitability of listed firms in Iraq. Also, there is negative significant relationship between interaction profitability, and assets (firm-size) on the capital structure of the listed firms. The result is in line with the pecking order theory prediction, and the signalling effects of capital structure decisions of firms. Osaretin Kayode Omoregie& et al (2019) this paper investigates the relationship between capital structures measured by debt ratio, on profitability is measured by return on equity, earning before tax to sales ratio and liquidity measured by quick ratio and earnings before interest and tax-to sales ratio. The findings indicate that profitability and liquidity responds similarly to capital structure. Relative to equity share of the capital structure, debt ratios has a negative effect on profitability and liquidity, while relative to asset increasing, debt has positive impact upon profitability and liquidity.

Liquidity

Mohamed Getahun (2016), this study investigated the relation between firm leverage, growth opportunity, size, risk, tangibility, and liquidity on performance in Ethiopian insurance companies. The findings indicate that there is significant relationship between firm leverage, size, tangibility and business risk with performance in Ethiopian insurance companies. However, there is insignificant relationship between growth, and liquidity and performance, while there is negative significant relationship between the leverage and performance using the regression analysis. Charles k. Ababio(2018), the study investigated the relationship between capital structure on profitability in insurance companies in Ghana using regression analysis the finding indicates that a positive significant relationship between capital structure on profitability ,also concluded that a positive relationship between firm size and the financial performance . Dimitris Margaritis & Maria Psilaki (2007), the purpose of this study is the analysis of the relationship between the efficiency, which is measured by (size, tangible asset, intangible asset, concentration index risk profit) and financial leverage which is measured by debt to total liability. The findings indicate that there is positive significant relationship between size, concentration index which is measured by (market share), profit, and the financial leverage, but the relationship between the risks

which is measured by (standard deviation of annual earing), and financial leverage is negative.

3. Hypothesis & Objective

The topic area of the paper is the analysis of the relationship between the financial performance measured by (profitability, liquidity) and the capital structure in insurance industry in Egypt.

To examine the impact of the probability, liquidity on capital structure in insurance industry in Egypt.

In the preceding section the study, the literature review indicated that some of studies show that there is a negative significant relationship between the profitability, liquidity and capital structure, whereas other studies show that there is a positive significant relationship between profitability, liquidity and capital structure. Accordingly, the hypothesises, as the null hypothesis H_0, will be:

1- There is no statistically difference between the return on equity and the capital structure

2- There is no statistically difference between the liquidity and the capital structure

3- There is no statistically difference between return on investment and the capital structure

4. Methodology &Research Population and Sample

In general the capital structure is one of the most important issue for all firms since M&M have been developed a trade- off theory of capital structure under unrealistic assumptions (1958), specially the insurance industry faced several crises in the last two decades as financial intermediate and risk aversion firms., Accordingly, the insurance companies have decided that to manage their needs form debt and equity (capital structure) to absorb their financial distress , they have to choose their capital structure accurately. So, this study sought to investigate the profitability, liquidity on capital structure , because this sector in Egypt is heavily regulated just like in other parts of the world, especially on paid capital and liquidity in their portfolio. Based on that, the study is using the panel data analysis methodology through the dynamic model along with descriptive statistics.

This part explains the population and sample of the study .The population is (39)insurance firms working in Egyptian insurance industry   under the supervision of the financial regulatory authority in Egypt over the period from 1999 to 2019, and the sample is (19) companies representing approximately 49% from the number of research population.

4.1 Required Data

Required data include ratio which concerning research variable, beside secondary data published by insurance companies through balance sheet and income statements. The model include(4) variable as follows:

Dependent variable	
Capital Structure	Debt Ratio = Debt / Total Liabilities
Independent variables	
ROE	Return on Equity = EBIT / Equity
Liquidity	Liquidity = (Cash + Deposit + S. T. Loans + Treasure Bills) / Total Assets
ROI	Return on Investment =EBIT / Total Investment

4.2 Statistical Tools

To investigate the impact of the financial performance (ROE, liquidity, ROI) as   independent variable and capital structure as dependent variable by using the descriptive statistics

(Mean - Median -Skewness- Kurtosis – standard deviation – (Jarque – Bera) –Probability)

4.3 Econometrics

Panel data analysis

5. Research Importance& Limitations

This study addresses the insurance industry in Egypt specially capital structure which is determined, under supervision of financial regularity authority in Egypt, as absolute amount 60 M Egyptian pound , and its impact on liquidity and profitability.

1- The topic area of this paper was for (20) years over the period 1999 to 2019, an acquisition between Misr Life Insurance and El Sharq Company has taken place… NASG to QNB

2- Several of the insurance firms published during the study period

6. Analysis Output

1. Jarque–Bera test, this statistical technique is used to measure the normality distribution

Table 1. Descriptive statistics for capital structure and the financial performance variables over the period 1999-2019

Constructs	Y	X_3	X_2	X_1
Mean	0.286202	0.041026	0.203807	0.138785
Median	0.256739	0.036967	0.093064	0.139345
Maximum	0.610526	0.134261	0.918528	0.474458
Minimum	0.025937	-0.046607	0.000106	-0.220321
Std. Dev.	0.145313	0.038342	0.221161	0.141172
Skewness	0.586278	0.355717	0.998195	0.082026
Kurtosis	2.550631	2.784185	2.961353	2.899317
Jarque-Bera	26.21463	9.188861	66.28503	0.615960
Probability	0.001***	0.010108*	0.001***	0.734930
Observations	399	399	399	399

*** Significant at alevel less than (0.001).

Table1 shows that the normality distribution of research variables in terms of profitability sub variable measured by return on equity (X_1), the finding of the Jarque-Bera test at a significant level greater than (0.05). The dependent variable (capital structure Y), and independent variables (liquidity X_2, and return on investment X_3) are not normally distributed, since the significant of Jarque-Bera statistic is less than (0.05).

Whereas Pearson skewness coefficient is between (1 to (-1)), according the table above the data is not significantly skewed.

2. Group unit root test

This technique is used to test the stationary of time series to ensure that the mean and variance are fixed over time, beside testing the value of the covariance between two time periods based on the distance between these periods, and not the actual time at which the covariance is calculatedfor the ROE, and liquidity on capital structure through the following statistical techniques: Augmented Dickey-Fuller (ADF), Philips-Perron (PP), I m, and Pesaran and Shin W-stat (IPSW).

Table 2. Group unit root test for dependent and independent variables from 1999 to 2019

Method	Statistic	Prob.**	Cross-Sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-8.17791	0.001***	4	1590
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-11.6553	0.001***	4	1590
ADF - Fisher Chi-square	147.835	0.001***	4	1590
PP - Fisher Chi-square	199.248	0.001***	4	1592

The above Table shows the stationary of the time series of the capital structure Y, ROE X_1, liquidity X_2,and ROI X_3, at level 1 ~ (0) according to the constant level, through to the following criteria; LLC, IPSW, PP, ADF, the level of significant at (0.05)

3. Co-integration equation Model

This test measures the existence of long-term equilibrium relationships among non-stationary time series variables in terms of capital structure y, return on equity X1, liquidly X2, and return on investment X_3, as shown below:

Table 3. Co-integration Model for dependent and independent variables from 1999 to 2019

Dependent	tau-statistic	Prob.*	z-statistic	Prob.*
Y	-6.253947	0.001***	-71.40551	0.001***
X_1	-8.984583	0.001***	-132.5467	0.001***
X_2	-8.278713	0.001***	-114.6094	0.001***
X_3	-8.934647	0.001***	-133.1395	0.001***

From table3the results shows that there are long-term equilibrium relationships between the dependent and independent variables from 1999 to 2019, based on the Tau-statistic, and z-statistic, at a significant level less than (0.05).

4. Pearson correlation matrix:

Table 4.Pearson correlation matrix

Constructs	Y	X_1	X_2	X_3
Y	1			
X_1	-0.407457***	1		
X_2	-0.013359	-0.146772**	1	
X_3	-0.175077***	0.647797***	-0.203725***	1

*** Significant at level less than (0.001).

** Significant at level less than (0.01).

In Table 4, findings indicate that:

There are significant negative linear relationships between the ROE (X_1), ROI (X_3), and, capital structure Y, at a significant level less than (0.001).This result is in line with Olaniyi, TaiwoAzeez& et al(2015) the findings indicate that there is a negative significant relationship between financial leverage and firm performance, but there is a positive significant relationship between capital structure and firm performance measured by(return on asset and return on equity) , also this result concur with (AydinOzkan 2001) study whichindicates that current liquidity and profitability of firms have negative effect on their leverage decision ,whereas there is a positive effect on leverage decision to the non-debt ratio and growth opportunities of firms. On the contrary of this study OngTze San and Teh Boon Heng(2018) investigated the relationship between capital structure measured by long term debt to capital, debt to capital, debt to asset, debt to equity market value, ~~and~~ debt to common equity, and corporate performance measured by return on capital, return on equity, earring to per share, operating margin and net income. The findings indicate that a positive relationship between return on capital, and debt to equity market value. Also there is a positive relationship between earrings per share, and Long-term Debt to Common Equity, while there is no relationship between return on asset, and earning per share; besides, there is no relationship between return on capital, return on equity, and the debt to capital.

1. There is no significant linear relationships between the independent variable of liquidity (X_2), and dependent variable, capital structure (Y), at a significant level greater than (0.05).

5. Pedroni Residual Co-integration Test:

Under the null hypothesis of no co-integration for panel data, the study used Pedroni residual co-integration test to specify cross section specific intercepts and homogeneous coefficient

Table 5.Pedroni Residual Co-integration Test for panel data

			Weighted	
	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	-0.155404	0.5617	-0.423460	0.6640
Panel rho-Statistic	1.327720	0.9079	0.684748	0.7532
Panel PP-Statistic	-2.136751	0.0163	-3.791983	0.0001
Panel ADF-Statistic	-1.047570	0.1474	-2.071747	0.0191

According to above Table, there are long-term equilibrium relationships between thecapital structure and return on equity, liquidity and return on investment of the panel data model (Y, X_1, X_2, and X_3), based on WeightedStatistic for both Panel PP-Statistic, and Panel ADF-Statistic,at a significant level less than (0.05).

6. Hausman Test for Correlated Random Effects:

Table 6.Hausman Test for Correlated Random Effects

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.290409	3	0.2318

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var (Diff.)	Prob.
X_1	-0.387231	-0.401967	0.000067	0.0710
X_2	-0.022198	-0.024482	0.000008	0.4154
X_3	0.368854	0.385213	0.000929	0.5914

Table 6, shows that the calculated value of the Hausman Test statistic, is not significant at a level greater than (0.05), thus, accepting the null hypothesis supporting the appropriateness of the random effects model , and rejecting the alternative hypothesis of the fixed effects model, as detailed in the first section of Table (6).

7. Total panel estimation fixed effect model:

Table 7. Total panel estimation fixed-effect model to determinethe effect of independent variablesonROI

Variable	Coefficient	Std. Error	t-Statistic	Prob.	VIF
C	0.060971	0.011281	5.404853	0.001***	--
Y(-1)	0.851762	0.026415	32.24563	0.001***	1.200423
X_1	-0.112518	0.035057	-3.209591	0.0014**	1.994237
X_2	-0.050629	0.017079	-2.964364	0.0032**	1.047012
X_3	0.203595	0.121680	1.673208	0.0951	1.776847

R^2=78.74.8%   F-test= 339.8 sig=0.001*** RMSE=0.107 U= 0.173   DW=1.97JB=1393.7 sig=0.001 BGSC=1.148 SIG=0.31844HeteroskedasticityTest:BPG   =1.23 SIG=0.297 Ramsey RESET=0.849 Sig=0.396
$Y = 0.0609709581807 + 0.851761949442*Y(-1) - 0.112517999647*X_1 - 0.0506294797838*X_2 + 0.203595154633*X_3$

Based on outcome in table 7 the panel estimation model using least squares: ,

1. The coefficient of determination: R^2

    The outcome of table 7 shows that the R^2 for the (ROE, liquidity and ROI) as independent variables were accepted in the model (Y, lag Y_1, X_1, X_2, and X_3) by (79.3%) which means that the independent variables explained 73 % from variation of dependent variable (capital structure) (Y), and 27 % other independent variables are not excluded in model or either the random error in the regression model. This result is consistent with *the agency cost theory for Jensen and Meckling (1976)which represent the agency cost as real as any other cost and in line with* Jane Wanjiku Muiruri1 and, NemwelBosire(2015), their results show that there are positivelyrelationship between the firm size, tangibility, liquidity and printability on capital structure decision in insurance companies in Nakuru Town profitability when R = 0. 69

2. F test:

    The findings of the above table indicate that the value of "F test" (339.8) at a less than (0.001) significant level, so the finding indicates that the independent variables (ROE, liquidity and ROI) were accepted in the

model are effect on the level of capital structure (Y).

3. T-test:

    The independent variables were accepted in the model are: lag Y, X_1, X_2 at a significant level less than (0.01).

4. VIF:

    Table (7) shows the variance inflation factors; this testing is to measure multicollinearity for the financial performance variables measured by (return on equity (X_1), liquidity (X_2) and return on investment (X_3),) the value of VIF as shown on the above table (1.99- 1.047- 1.77) , despite the larger the variance inflation factors, interpretation the multicollinearity, if any variance inflation factors exceed (10), then multicollinearity is a problem. The considerable range for the variance inflation factors should not exceed (4) or (5) according to the table, the value of VIP less than (4); therefore the model has not suffered from the multicollinearity problem.

8. The Jarque-Bera Test

In Table 7, outcome presented the Pearson skewnessvalue (.28) whereas the significance value of the test statistic ($\leq$0.05), then reject the null hypothesis (H_0) is rejected: residuals are normally distributed, the result indicates that the data is not significantly skewed.

9. Theil's inequality coefficient U:

This statistically technique is used to measure the accuracy of the estimates of the random effects model. The range of this coefficient is (0 to 1), which means that zero value indicates a perfect fit. While   the value reaches up to zero (0.17) it indicates that the fitness of the model, at the level percentage equal or more than   (83%).

10. The Durbin-Watson test statistic:

In table 7, the Durbin-Watson test statistic value is (1.97), according to durbin-watson ranges value from (0 to 4) a value near (2) indicates non-autocorrelation; a value toward (0) indicates positive autocorrelation; a value towards (4) indicates negative autocorrelation. Based on the Durbin-Watson test statistic tests the null hypothesis that the residuals from model (OLS) is not auto correlated on other hand the residuals follow(AR1) model the first – order autocorrelation   is   positive

11. Breusch-Godfrey

The outcome in   table 7 provides data for Breusch – Godfrey based on the   serial correlation LM test (1.148) whereas the   range of the significance value of the BGSC test ($\geq$0.05);(0.3184) ;, based on that,   the null hypothesis (H0)would not be rejected : there is no serial correlation up to lag order P, where p is pre specified integer .

12. Heteroskedasticity Test

Table (7) shows ordinary least square as the statistical techniques; the most important assumption is that the error term has a constant variance. The table includes the Heteroskedasticity Test: Breusch-Pagan-Godfrey. The results show that, the significance level of the tests: F-statistic, Obs * R-squared, is greater than (0.05), based on outcome for the Homoscedasticity of error term which means the acceptance of the null hypothesis.

13. Ramsey RESET Test

 Statistically, (RESET) test is a testing for the linear regression model. This test provides whether non-linear mix of the fitted values interpret the response variable. Whereas the significance level of the t-statistic, F-statistic,Likelihood ratio test statistic ($\geq$0.05); (0.3961), according to the outcome from table7result shows that the acceptance of the null hypothesis (H_0): This means that there are no omitted variables   and the functional form is correct,

14. Residual Cross-Section Dependence Test:

Table 8.Residual of Cross-Section Dependence Test

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	165.2923	171	0.6087
Pesaran scaled LM	-1.336041		0.1815
Pesaran CD	2.068308		0.0386

According to table 8, the significance of Breusch-Pagan LM, and Pesaran scaled LM tests, are greater than

(0.05), the result strongly accepts the null of no correlation at conventional significance levels. This result is in line with AnupChowdhury, Suman P. Chowdhury(2010) the aim of this study is to test the effect of the financial leverage on the firm's value. The findings indicate that cost of capital has a negative correlation in capital structure decision. Also notice that by changing the debt /equity composition a firm can increase its value in the market.

The last line presents the result of the Pesaran CD test which is asymptotically standard normal, and the test statistic results due to a strongly reject to the null at conventional levels i.e. there is cross-section dependence (correlation) in residuals
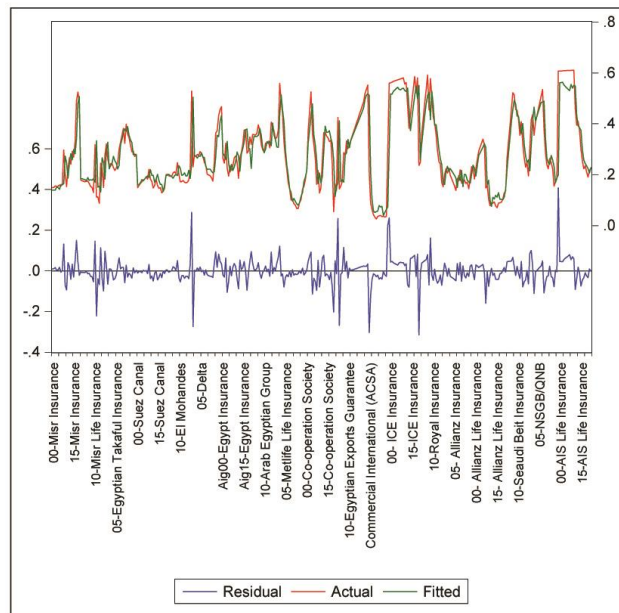
Figure 1. Residual-Actual-Fitted for the dependent and in
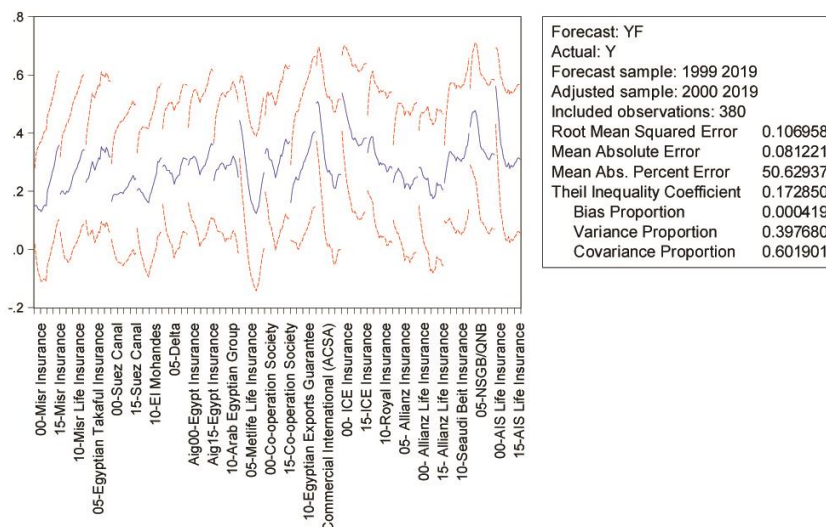
Figure 2. Variance, Covariance, Bias Proportion / Theil Inequality Coefficient
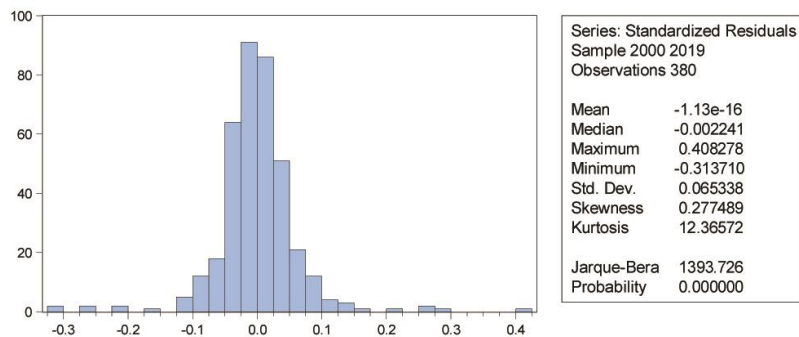
Figure 3. Standardized Residuals Sample

7. Conclusion

This study attempts to analyse the impact of the relationship between the profitability and liquidity on capital structure of the insurance firms in Egypt as applied on a sample of (49%) from insurance firms working under superficially of Egyptian financial authority over the period (1999 – 2019)

According to Pearson correlation matrix the results show that:

There are significant relationship between the Capital Structure and Return on Equity Return on Investment, this result is in line with Charles k. Ababio(2018), and in line with pecking order theory by Stewart Mayer 1984 that due to asymmetric information, firms prefer internal sources rather than external sources. On other hand the There is no a significant relationship between the capital structure and liquidly. This result is in line with Albert Danso& et, al (2020) whose study investigated the variables which have an effect on capital structure in Japanese firms, the study results show that there is a negative significant relationship between the profitability, liquidity, and growth rate on capital structure;on the other hand there are positive significant relationship between the volatility, and size on capital structure. Moreover, according to Muhammad RaghibZafa& et al (2016), the results show that there are negative relationships ratio of (total debt / total equity) .(ROA), (ROE) and earning per share (EPS), moreover, he also concluded that there is a positive relationship between capital structure and profitability of banks in Pakistan

Based on the panel data analysis, the findings indicate that the R^2 for the independent variables were accepted in the model (Y, lag Y_1, X_1, X_2, and X_3) by (79.3%) which means the (ROE liquidity and ROI) as independent variables explained 79% of variation independent variable capital structure (Y); the findings indicate that there are long-term equilibrium relationships between the capital structure (Y)and the financial performer measured by profitability and liquidity however the profitability measured by (ROE , ROI) as the independent variablesover the period(1999 – 2019), depend on the Tau-statistic, and z-statistic, tests at a significant level less than (0.05).

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