



ISSN 1913-9004 (Print)
ISSN 1913-9012 (Online)

International Business Research

Vol. 14, No. 2, February 2021

Canadian Center of Science and Education®

INTERNATIONAL BUSINESS RESEARCH

An International Peer-reviewed and Open Access Journal for Business Research

International Business Research is an international, double-blind peer-reviewed, open-access journal. IBR is published by the Canadian Center of Science and Education in both print and online versions. IBR aims to promote excellence through dissemination of high-quality research findings, specialist knowledge, and discussion of professional issues that reflect the diversity of this field.

The scopes of the journal include:

Business
Marketing
Management
Finance
Economics
Accounting

The journal is included in:

EconBiz; ECONIS; ERA
Google Scholar
IBZ Online
MIAR; RePEc
SHERPA/RoMEO
Ulrich's; ZBW

Open-Access Policy

We follow the Gold Open Access way in journal publishing. This means that our journals provide immediate open access for readers to all articles on the publisher's website. The readers, therefore, are allowed to read, download, copy, distribute, print, search, link to the full texts or use them for any other lawful purpose. The operations of the journals are alternatively financed by article processing charges paid by authors or by their institutions or funding agencies.

Copyright Policy

Copyrights for articles are retained by the authors, with first publication rights granted to the journal/publisher. Authors have rights to reuse, republish, archive, and distribute their own articles after publication. The journal/publisher is not responsible for subsequent uses of the work.

Submission Policy

Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the authorities responsible where the work was carried out. However, we accept submissions that have previously appeared on preprint servers (for example: arXiv, bioRxiv, Nature Precedings, Philica, Social Science Research Network, and Vixra); have previously been presented at conferences; or have previously appeared in other "non-journal" venues (for example: blogs or posters). Authors are responsible for updating the archived preprint with the journal reference (including DOI) and a link to the published articles on the appropriate journal website upon publication.



The publisher and journals have a zero-tolerance plagiarism policy. We check the issue using the plagiarism prevention tool and a reviewer check. All submissions will be checked by iThenticate before being sent to reviewers.



This is an 'Open Access' journal published under a creative commons license. You are free to copy, distribute, display, and perform the work as long as you clearly attribute the work to the authors.

IBR accepts both Online and Email submission. The online system makes readers to submit and track the status of their manuscripts conveniently. For any questions, please contact ibr@ccsenet.org.



Online Available: <http://ibr.ccsenet.org>

EDITORIAL TEAM

EDITOR-IN-CHIEF

Michaela Maria Schaffhauser-Linzatti, University of Vienna, Austria
Rafael Hernandez Barros, Universidad Complutense de Madrid, Spain

ASSOCIATE EDITORS

Giuseppe Granata, Univeristy of Cassino and Southern Lazio, Italy
M. Muzamil Naqshbandi, University of Dubai, United Arab Emirates
Olszak Celina, University of Economics in Katowice, Poland
Rafiuddin Ahmed, James Cook University, Australia

EDITORIAL ASSISTANT

Kevin Duran, Canadian Center of Science and Education, Canada

EDITORIAL BOARD MEMBERS

Abedalqader Rababah, Oman	Chokri Kooli, Canada
Ahnaf Ali Alismadi, Saudi Arabia	Christos Chalyvidis, Greece
Ajit Kumar Kar, India	Chuan Huat Ong, Malaysia
Al-Amin Md., Bangladesh	Claudia Isac, Romania, Malaysia
Alina Badulescu, Romania	Cristian Marian Barbu, Romania
Alireza Athari, Iran	Dionito F. Mangao, Philippines
Anant Deshpande, USA	Domenico Nicolò, Italy
Anca Gabriela Turtureanu, Romania	Duminda Kuruppuarachchi, New Zealand
Andrea Carosi, Italy	Elisa Bocchialini, Italy
Andrei Buiga, Romania	Ewa Ziemia, Poland
Anna Maria Calce, Italy	Farouq Altahtamouni, Jordan
Anna Paola Micheli, Italy	Fawzieh Mohammed Masad, Jordan
Antônio André Cunha Callado, Brazil	Federica Caboni, Italy
Antonio Usai, Italy	Federico de Andreis, Italy
Anuradha Iddagoda, Sri Lanka	Fevzi Esen, Turkey
Aoulad Hosen, Bangladesh	Filomena Izzo, Italy
Ashford C Chea, USA	Florin Ionita, Romania
Aurelija Burinskiene, Lithuania	Foued Hamouda, Tunisia
Ayoub Sidahmed, Sudan	Francesco Scalera, Italy
Bazeet Olayemi Badru, Nigeria	Gennaro Maione, Italy
Benjamin James Inyang, Nigeria	Gianluca Ginesti, Italy
Boguslaw Bembenek, Poland	Gilberto Marquez-Illescas, USA
Brahim Chekima, Malaysia	Gökhan KIRBAÇ, Turkey
Bruno Ferreira Frascaroli, Brazil	Graziella Sicoli, Italy
Bruno Marsigalia, Italy	Grzegorz Strupczewski, Poland
Carla Del Gesso, Italy	Guy Baroaks, Israel
Chemah Tamby Chik, Malaysia	Haldun Şecaattin Çetinarşlan, Turkey

Hanna Trojanowska, Poland
Henrique F áima Boyol Ngan, Macao
Hejun Zhuang, Canada
Herald Ivan Monis, India
Hind Ahmed, Sudan
Hsiao-Ching Kuo, USA
Hung-Che Wu, China
Ionela-Corina Chersan, Romania
Isam Saleh, Jordan
Ivano De Turi, Italy
Iwona Gorzen-Mitka, Poland
Ivana Tomic, Serbia
Janusz Wielki, Poland
Jing Cheng, USA
Joanna Katarzyna Blach, Poland
Joseph Lok-Man Lee, Hong Kong
Khaled Mokni, Tunisia
Kuangli Xie, USA
Ladislav Mura, Slovakia
Leo Franklin, India
Leow Hon Wei, Malaysia
Lotfi TALEB, Tunisia
Luisa Helena Pinto, Portugal
Majdi Arrif, Syria
Manuela Rozalia Gabor, Romania
Marcelino Jos é Jorge, Brazil
Marcos Ferasso, Brazil
Marco Valeri, Italy
Margaret Antonicelli, Italy
Maria do C áu Gaspar Alves, Portugal
Marta Joanna Zi ókowska, Poland
Maria Madela Abrudan, Romania
Maria Teresa Bianchi, Italy
Mariella Pinna, Italy
Maryam Ebrahimi, Iran
Matteo Palmaccio, Italy
Michele Rubino, Italy
Mihaela Simionescu (Bratu), Romania
Miriam Jankalova, Slovakia
Miroslav Iordanov Mateev, UAE
Modar Abdullatif, Jordan
Mohamed A. R. Salih, Saudi Arabia
Mohammad Abdullah Altawalbeh, Jordan
Mortaza OJAGHLOU, Turkey
Muath Eleswed, USA
Murat Akin, Turkey
Mustafa Özer, Turkey
Nicoleta Barbuta-Misu, Romania
Nirosh Kuruppu, Oman
Odor Hillary, Nigeria
Oluyomi Abayomi Osobajo, UK
Ouedraogo Sayouba, Burkina Faso
Ozgur Demirtas, Turkey
Pascal Stiefenhofer, United Kingdom
Prosper Senyo Koto, Canada
Radoslav Jankal, Slovakia
Ran Zhao, USA
Rapha ð Dornier, France
Razana Juhaida Johari, Malaysia
Riaz Ahsan, Pakistan
Riccardo Cimini, Italy
Romana Korez Vide, Slovenia
Rossana Piccolo, Italy
Roxanne Helm Stevens, USA
Sachita Yadav, India
Salah Eddine Taha, Morocco
Sara Saggese, Italy
Serhii Kozlovskyi, Ukraine
Shrijan Gyanwali, Nepal
Shun Mun Helen Wong, Hong Kong
Silvia Ferramosca, Italy
Silvia Vernizzi, Italy
Slavoljub M. Vujović, Serbia
Sreekumar Menon, Canada
Stoyan Neychev, Bulgaria
Sumathisri Bhoopalan, India
Tatiana Marceda Bach, Bazil
Tariq Tawfeeq Yousif Alabdullah, Iraq
Valentinetti Diego, Italy
Valerija Botric, Croatia
Vassili Joannides, Australia
Wanmo Koo, USA
Yan Lu, USA
Yasmin Tahira, UAE
Yok Yong Lee, Malaysia
Zi-Yi Guo, USA

CONTENTS

Perceived Organizational Politics, Leadership Style and Resilience: How Do They Relate to OCB, If at All? <i>Aharon Tziner, Amos Drory, Nir Shilan</i>	1
Work-Life Balance Constructs and Job Satisfaction: Evidence from the Palestinian Investment Sector <i>Muna M. Khoury</i>	13
The Impact of Celebrity Endorsement on Brand Loyalty: Mediating and Moderating Mechanisms <i>Regina Burnasheva, Yong Gu Suh</i>	29
Exploring the impact of Corporate Social Responsibility on the Financial Performance of Rural and Community Banks in Ghana <i>Reindolph Osei Anim, Newman Amaning, Joyce Ama Quartey, Patrick Twumasi Frimpong</i>	37
The Impact of Learning Organizations Dimensions on the Organisational Performance: An Exploring Study of Saudi Universities <i>Abdulrahim Zaher Meshari, Majed Bin Othayman, Frederic Boy, Daniele Doneddu</i>	54
Impact of Information on Food Stocking during Early Period of COVID-19 Outbreak: Survey Exploration between Canada and US Consumers <i>Yuanfang Lin, Xuezhong Wang, Tirtha Dhar</i>	72
The Impact of Employee Empowerment on Job Engagement: Evidence from Jordan <i>Nadia Alhozi, Nayel Al Hawamdeh, Malek Al-Edenat</i>	90
An Assessment of Teachers' Performance Management System: The Case of Saudi Ministry of Education <i>Nada Alshaikhi, Turkey Alshaikhi</i>	102
A Novel Metaphor Concerning the Terminology of Open Innovation <i>Shanta Rajapaksha Yapa, R Senathiraja, Ilkka Kauranen</i>	114
Digital Leadership: The Perspectives of the Apparel Manufacturing <i>Mohammad Alam Tareque, Nazrul Islam</i>	124
Reviewer Acknowledgements for International Business Research, Vol. 14, No. 2 <i>Kevin Duran</i>	136

Perceived Organizational Politics, Leadership Style and Resilience: How Do They Relate to OCB, If at All?

Aharon Tziner^{1,2}, Amos Drory¹, & Nir Shilan²

¹ Peres Academic College, Israel

² Netanya Academic College, Israel

Correspondence: Aharon Tziner, Peres Academic College & Netanya Academic College, Israel.

Received: November 30, 2020

Accepted: December 25, 2020

Online Published: January 8, 2021

doi:10.5539/ibr.v14n2p1

URL: <https://doi.org/10.5539/ibr.v14n2p1>

Abstract

The present study examines the relationship between Perceived Organizational Politics (POP) and self-reported Organizational Citizenship Behavior (OCB) focusing on three mediating variables, transactional leadership, transformational leadership, and resilience. 210 employees from a variety of organizations and backgrounds completed a questionnaire containing standard measures of the study variables. Analysis of the data using Amos statistical package shows that OCB is significantly associated with POP, and that leadership styles and resilience significantly mediate this association. The results are discussed in terms of employees' motivation to react to lack of perceived clarity, justice and fairness by enhancing their self-report of OCB engagement. Further research is needed to better understand the meaning of self-reported OCB.

Keywords: organizational politics, resilience, organizational citizenship behavior

1. Introduction

Although the theme of organizational politics has been amply explored, relatively insufficient attention has been devoted to its likely obnoxious outcomes. This state of affairs is particularly worrisome, considering the undesirable consequences that political wrangling in the workplace might have on employees' proactive organizational behavior, generally labeled as Organizational Citizenship Behavior (OCB).

Organizational politics can be construed from the negative, subjective view of the observer as perceived organizational politics (POP), whereby employees, for example, tend to believe that organizational decision-making processes are fueled by self-serving activities (Vigoda-Gadot & Drory, 2016). The detrimental effect of such perceived managerial behavior on OCB is possibly mitigated by several factors that should be more thoroughly investigated: We need an in-depth understanding of how, for instance, factors such as managers' leadership styles (transformational vs. transactional, embedded in the organizational setting), and employees' resilience (on the individual level), link to perceived organizational politics on organizational citizenship. We might also wish to capitalize on the job demands-resources (JD-R) theoretical model by positing that harmful work conditions hinder the display of employees' positive, beneficial work behaviors, and that this reticence can be attenuated by enhancing resources (Bakker & Demerouti, 2007).

In the current study, we postulate that both leadership style and employee resilience may mediate the effect of POP on OCB. Where the styles are appropriate, both transformational and transactional leadership modes can foster personal development and reinforce goal attainment with proportionate rewards. Individual resilience encompasses the competence to bounce back from setbacks and, subsequently, reach higher levels of achievement. These two factors – leadership style and resilience – can act as resources contributing to the attenuation of the low levels of OCB attributable to high levels of POP. We proceed now with further discussion of the aforementioned variables of the current study.

1.1 Organizational Politics

Organizational politics (OP) has been attracting considerable academic attention for over four decades (Bergeron & Thompson, 2020; Hochwarter, Rose & Jordan, 2020). The term as defined by Ferris, Russ and Fandt (1989) comprises behaviors strategically targeted to maximize self-interests, and likely to undermine collective organizational goals and the interests of other employees in the workplace. Kipnis, Schmidt and Wilkinson (1980) suggested that OP is construed as carrying a negative load of manipulation, subversion, and illegitimate ways of

attaining egocentric objectives.

Numerous studies have attempted to examine the definition, dynamics, causes and antecedents of this phenomenon and to discuss the implications for organizations' functioning and for employees' well-being. The majority of researchers pointed at the negative sides of OP, associating it with a climate of manipulations, lack of justice and fairness, and self-serving motives. Other researchers noted some positive aspects of OP, as well associating it with effective leadership and constructive coalition building (Bacharach, 2005). Many of the studies focused on the negative effects of OP in employees. Within political environments, employees tend to feel threatened by the uncertainty, ambiguity and the self-interest actions that occur with individuals (Harris, Harris & Wheeler, 2009). Others proposed that organizational politics were the source of conflict and stress at the workplace (Ladebo, 2006; Vigoda-Gadot & Kapun, 2005). Other studies highlighted the negative effect of OP on job outcomes and job performance (e.g., Drory, 1993; Ferris & Kacmar, 1992; Kacmar, Bozeman, Carlson, & Anthony, 1999; Vigoda-Gadot, 2003). Vigoda-Gadot and Drory (2016) recorded that empirical research has substantiated both descriptions of organizational politics and the harmful effects that such politics have on employees. It was further found that trust and social support can moderate the negative effect of OP on job outcomes (Vigoda-Gadot & Talmud, 2010). Surprisingly, one aspect that has not yet been widely explored is the potential coping mechanisms, which employees may adopt in an attempt to reduce the adverse effect of OP. We shall attempt to address this aspect at a later point.

1.2 Organizational Citizenship Behavior

Organ (1988) identified a set of work-related behaviors described as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization".

These activities, which are neither formally recognized nor rewarded, have been subsumed under the heading of Organizational Citizenship Behavior (OCB) (Chernyak-Hai & Rabenu, 2018). Notably, in the increasingly dynamic and competitive organizational environment, OCB is considered a highly-valued contributor to the effective functioning of an organization. In recent years, there has been increasing interest in OCB recorded by many management scholars (e.g., Bogler & Somech, 2019; Henderson, Foster, Mathews, & Zicker, 2020; Oren et al., 2013; Parker, Subrahmanian, & Hussain, in press; Turnipseed, 2018). According to Tziner and Sharoni (2014), since the year 2000, no fewer than four hundred articles on OCB and related constructs have been published by organizational researchers.

Past studies of OCB indicate the utility of differentiating between OCB targeted at the organization (OCB-O) and OCB directed towards individuals at the workplace (OCB-I) (Podsakoff et al., 2009; Spitzmuller, Van Dyne, & Ilies, 2008). This distinction has been employed in this investigation to explore whether, concerning each specific category of OCB, differential patterns of relationships with the other variables unfold.

While OCB was initially considered a highly desirable phenomenon, reflecting a spirit of voluntarism and goodwill towards the organization and coworkers, Bolino (1999) was the first to suggest that OCB may often be motivated by impression management motives. Employees may enhance their OCB and the awareness of their environment to their OCB in order to further their own selfish agenda. Bolino goes further to suggest that when organizational processes such as rule enforcement, performance appraisal, and advancement decisions become politicized and subjective, rather than objective, an individual's image tends to become important. Ralston and Elsass (1989) suggested that individuals used impression management strategies in reaction to political environments in an attempt to improve their personal image, using acts of citizenship to achieve it. We therefore hypothesize that:

H1: OCB will be positively related to the perception of OP.

However, in an attempt to shed further light on the mechanism through which organizational politics relate positively to OCB, we elected to examine transformational and transactional leadership styles, as well as resilience, as possible significant mediating variables – constructs that we considered to have reasonable explanatory potential.

1.3 Transformational and Transactional Leadership Styles

Leadership styles, of course, vary among leaders. Of particular note, recent literature on the subject has distinguished between two specific styles of leadership labeled, respectively, transformational and transactional leadership. (Kanat-Maimon, Elimelech, & Roth, 2020; Shkoler & Tziner, 2020).

Transformational leaders tend to inspire subordinates (or followers) and entire collectives. Transformational leadership operates through mechanisms of affect, cognitions, and behaviors, and such leaders influence and

manage their followers' actions via shared belief systems (cognitions), positive emotions (affect), and through the mutual expression of a collective vision (Bass, 2007; Jung & Avolio, 1999; Kark, Van Dijk, & Vashdi, 2018; Perilla-Toro & Gómez-Ortiz, 2017; Xenikou, 2017; Yaffe & Kark, 2011). The transformational leadership paradigm is essentially a two-dimensional framework (Hernandez, Eberly, Avolio, & Johnson, 2011). Although commands filter down the hierarchy, the leader is open to debate, and may also be influenced by the followers, so that there is a reciprocal dyadic process rather than a unidirectional leadership pattern.

In contradistinction, transactional leadership designates the 'traditional' leader. The leadership mechanism originates from the leader, and the leader alone. Commands go down the hierarchy and are unidirectional or even unilateral. The leader will more likely invoke an authoritative structure directed at influencing followers' behaviors. This style has been conceptualized in terms of an exchange process, in which rewards are offered for compliance, and punishment for non-compliance (Bass, 2007; Jung & Avolio, 1999; Yaffe & Kark, 2011). The transactional leader sets standards and norms and highlights obligations, while directing subordinates to perform tasks in the "correct and expected way", which encourages conformism and submission (Bass, 1985; Gorman et al., 2012; Kark, Katz-Navon, & Delegach, 2015; Kark, Van Dijk, & Vashdi, 2018).

We propose that employees' perception of the leadership styles described above will mediate the relationships between OP and OCB. We maintain that the perception of both leadership styles impacts the employees' trust in reward allocation consistency, transparency and justice. Hence:

H2: The more employees feel that they can rely on their superiors to ensure fair and just allocation of rewards, the less they would react to higher OP by increasing their citizenship behavior.

1.4 Resilience

While resilience may be considered an "experience" (Madrid, Diaz, Leka, Leiva, & Barros, 2018, p. 465), the term is usually defined as "the human ability to adapt in the face of tragedy, trauma, adversity, hardship, and ongoing significant life stressors" (Newman, 2005, p. 227). Notably, in the context of positive adaptation to stressful events and adversity, the concept has been researched extensively in the literature (e.g., American Psychological Association, 2014; Britt, Shenn, Sinclair, Grossman & Klieger, 2016; Fikretoglu & McCreary, 2012; Lau, Wilkins-Yel, & Wong, 2020; Meredith et al., 2011; Oshio, Taku, Hirano, & Saeed, 2018).

Highly resilient individuals have emotional stability (Masten, 2001), and their emotions seem to be more positive than negative. Following Bonnano (2004), resilience reflects the ability to maintain a stable equilibrium in the wake of stressful events. For Carver (1998), resilience refers to (a) people's ability to return to their previous levels of functioning; (b) as indicated above, the competence to bounce back from setbacks; and (c) subsequently, to reach higher levels of achievement (Crawford, LePine & Rich, 2010; Walpita & Arambepola, 2020). In sum, following Hobfoll (2011), resilience refers to people's ability to endure the most detrimental effects of stressful challenges, and still remain vital, steadfast, and engaged in important life tasks. We hence propose that:

H3: Employee resilience will mediate the relationship between OP and OCB. The higher the resilience, the stronger the inclination to react to OP by positive and constructive out-of-role behaviors in an attempt to maximize the chance of higher reward allocation in an uncertain environment.

To sum up, we hypothesize that these variables interrelate as displayed in the theoretical model in Figure 1; namely, that the variables of leadership style and resilience mediate the relationship between organizational politics (OP) and OCB.

According to this model, organizational politics will be positively related to OCB. We hypothesize that the more the climate is perceived as lacking fair and systematic practices of reward allocation and justice, the greater the employee's inclination to create a positive image by various means such as out-of-role citizenship behavior in the hope of increasing the probability of maximizing rewards.

Mediating variables: The model further suggests that the relations between OP and OCB will be mediated by transactional leadership, transformational leadership and personal resilience. The rationale behind the choice of these mediating variables is as follows.

Transactional leadership – We suggest that when operating in a political climate, employees look around for support systems, which may counterbalance the psychological uncertainty and relieve potential anxiety. Naturally, they look up to their immediate superior for supporting clues. The transactional leader offers clarity and stability regarding the rules of exchange in terms of what work inputs will be rewarded and what the rewards will be. This style may lower the uncertainty caused by the political climate, and may reduce the need to resort to out-of-role activities such as OCB in the hope of creating a positive image, which will hopefully increase the probability of positive reward.

Transformational leadership – in contrast to the transactional leader, the transformational leader attempts to inspire and to instill values rather than offer rewards in exchange for work input. This approach does not alleviate the feeling of insecurity and mistrust caused by political climate. It is therefore hypothesized that when the climate is already perceived as political, the less the employee can rely on the superior to ensure clarity and fair exchange, the greater the effort to resort to OCB will be.

Resilience – We suggest that highly resilient individuals have a strong capability for dealing with unfavorable situations. They are self-assured and ready to fight to overcome obstacles. They utilize their resources expediently and in a positive fashion, thus improving their standing with their superiors in a relatively unpredictable situation, and increasing the probability of being positively rewarded. When they face a highly political climate, appearing to lack fairness in the allocation of rewards, they are expected to diversify their efforts to include more OCB, and report on doing so more strongly.

The goal of the study reported in this paper was to ascertain to what extent this theoretical model holds up.

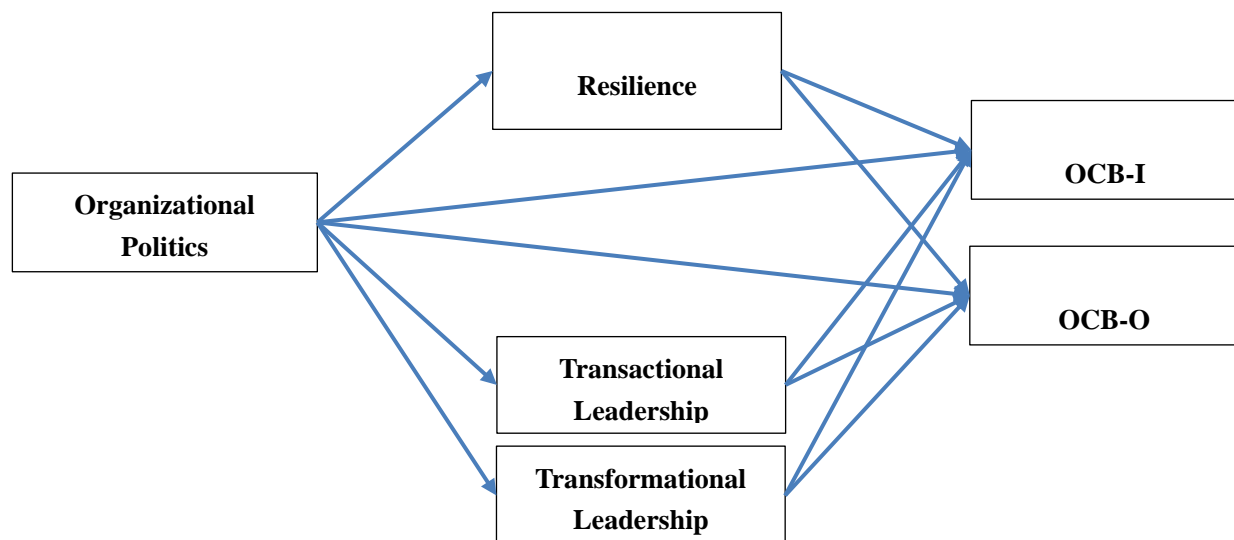


Figure 1. Research Model – The Mediated Association between Organizational Politics and OCB

Note. OCB-I = interpersonal dimension of organizational citizenship behaviors. OCB-O = organizational dimension of organizational citizenship behaviors

2. Method

2.1 Participants

The sample consisted of 210 employees, of which 53.3% were men and 46.7% women between the ages 20-67 ($M = 41.68$, $SD = 9.93$); married (68.1%), single (13.3%), divorced or separated (15.2%), and widowed (3.3%). In terms of education, 29.5% had completed a high-school education, 44.3% held a BA, and 26.2% an MA and above. By religiosity, 5.7% were orthodox (or very religious), 27.1% religious, 34.3% traditional/ conservative, 29% secular, and 3.8% atheists. In addition, regarding job tenure, 0-5 years: 21%, 6-10 years: 22.9%, 11-15 years: 28.1%, 16-20 years: 14.3%, and 20 years and above: 13.8%. 41.9% worked in the public sector, 34.3% in the private sector, 14.8% in high-tech industries, and only 9% were self-employed/freelancers. Overall, 56.2% held a non-managerial role, while 43.8% held some kind of managerial role within the organization.

The questionnaires were administered by the third author under the supervision of the first one. Participation in the survey was voluntary. Anonymity and discretion of the participants and the derived data were guaranteed, and included an informed consent statement at the beginning of the survey, ascertaining their agreement to participate. The information was treated responsibly, according to legislation in the field of data confidentiality. No incentives were offered to the participants for their cooperation. The participants were assured of our respect for data confidentiality throughout the stages of collection, processing, storage, dissemination, and archiving. No personal data of the respondents was recorded, making them impossible to identify. In a way, they could be regarded as convenience subjects.

2.2 Measures

Leadership styles were measured using the 36-item Multifactor Leadership Questionnaire (MLQ; Avolio & Bass, 1991), on a Likert-type scale ranging from 1 (“strongly disagree”) to 6 (“strongly agree”). *Transactional* leadership was assessed by 12 items; for example, “Your leader assists you based on effort.” In the present study, reliability was good ($\alpha = .81$, $M = 3.62$, $SD = 0.59$). *Transformational* leadership was gauged by 24 items; for example, “Your leader teaches and coaches.” In the present study, reliability was high ($\alpha = .93$, $M = 3.73$, $SD = 0.80$).

Organizational citizenship behaviors were gauged by a 14-item measure rated on a Likert scale ranging from 1 (“strongly disagree”) to 6 (“strongly agree”) to assess employees’ organizational behaviors (Williams & Anderson, 1991). OCB-I (*interpersonal*) is indicated by items 1-7, for example: “Helps others who have heavy workloads.” In the present study, reliability was good ($\alpha = .85$, $M = 4.07$, $SD = 0.86$). OCB-O (*organizational*) is indicated by items 8-14 (items 10-12 are reverse-coded), for example: “Adheres to informal rules devised to maintain order.” In the present study, reliability was adequate ($\alpha = .70$, $M = 3.84$, $SD = 0.72$).

Resilience was measured using the 25-item Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003), on a Likert-type scale ranging from 1 (“rarely true”) to 6 (“true nearly all of the time”). For example, “When things look hopeless, I don’t give up” and “Able to adapt to change.” In the present study, reliability was high ($\alpha = .96$, $M = 3.98$, $SD = 0.83$).

Control variables. In further analyses, we also controlled for the effects of gender, age, tenure, managerial role, sector/industry, religiosity, and education.

Organizational politics was gauged using the 12-item Perceptions of Politics Scale (POPS; Kacmar & Carlson, 1997), on a Likert-type scale ranging from 1 (“strongly disagree”) to 6 (“strongly agree”). For example, “There has always been an influential group in this department that no-one ever crosses.” In the present study, reliability was subpar ($\alpha = .51$). Thus, *after* employing a factor analysis, six items were discarded from further analyses due to reliability concerns for two main reasons: (1) *qualitatively* – these items were essentially different from the other six items, and (2) *quantitatively* – these items did not add any meaningful mathematical information to the latent construct of organizational politics (e.g., Corrected Item-Total Correlations ranged between [-.07]-[.15], which is unacceptable by normal standards) (for further reading, see: Henderson, Foster, Matthews, & Zickar, 2019). After doing so, the alpha coefficient was adequate $\alpha = .83$, $M = 3.81$, $SD = 0.87$).

As shown in Table 1, these analyses produced clean, adequate, and reliable factors that act as references for further analyses in this study from this point onwards.

3. Results

Initially, three tests were employed to assess the extent to which inter-correlations among the variables might be an artifact of common method variance (CMV): (a) Harman’s single-factor method (a confirmatory factor analysis [CFA] in which all items are concurrently loaded on one single factor); (b) a common latent factor method (a CFA in which all items are loaded on both their expected factors and one common latent factor is loaded on each of the items respectively, but are uncorrelated to their respective latent factors); and (c) a CFA without a common latent factor, as proposed by Podsakoff et al. (2003), and backed by Jawahar, Schreurs and Mohammed (2018) and Tziner, Shkoler and Fein (2020).

The Harman’s single-factor method accounted only for 27.60% of the explained variance: $\chi^2(3,519) = 12,513.77$, $p = .000$, $\chi^2/df = 3.56$, CFI = .63, NFI = .76, GFI = .83, SRMR = .17, RMSEA (90% CI) = .27 (.13–.29), $p\text{-close} = .000$. In addition, the common-latent factor accounted only for 24.19% of the explained variance: $\chi^2(3,317) = 9,325.17$, $p = .000$, $\chi^2/df = 2.81$, CFI = .75, NFI = .81, GFI = .84, SRMR = .13, RMSEA (90% CI) = .18 (.07–.22), $p\text{-close} = .000$. Last, the CFA analysis (without a common latent factor) accounted only for 22.95% of the explained variance: $\chi^2(3,107) = 6,493.62$, $p = .000$, $\chi^2/df = 2.09$, CFI = .84, NFI = .86, GFI = .90, SRMR = .10, RMSEA (90% CI) = .12 (.00–.16), $p\text{-close} = .009$. As can be seen, the common latent factor method produced better indices and less CMV. While these results do not completely exclude the likelihood of same-source bias (i.e., CMV), following Podsakoff et al. (2003), less than 50% ($R^2 < .50$) of the explained variance accounted for by the first emerging factor—together with the poor model fit for each analysis—indicates that CMV is an unlikely explanation of our investigation’s findings. Additionally, it is important to note that prior to conducting further analyses, we followed Tehseen, Ramayah and Sajilan’s (2017) suggestion for correcting CMV via construct-level correction. Although not completely devoid of CMV, its level has been reduced to a bare-minimum for each variable.

Furthermore, zero-order Pearson correlations were calculated in order to observe the intercorrelations among the

research variables, as shown in Table 1 (again, after correcting for CMV, as mentioned before).

Table 1. Pearson Correlations Matrix (N = 210)

	1	2	3	4	5
1. Org. Politics					
2. Resilience	.56***				
3. Transformational	.38***	.57***			
4. Transactional	.51***	.43***	.57***		
5. OCB-I	.49***	.72***	.48***	.32***	
6. OCB-O	.14*	.58***	.19**	-.16*	.54***

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$. Org. = organizational. Transformational = transformational leadership style. Transactional = transactional leadership style. OCB-I = *interpersonal* dimension of organizational citizenship behaviors. OCB-O = *organizational* dimension of organizational citizenship behaviors

To test the mediation model as a whole, we utilized the AMOS software program (v. 23). The model's fit is adequate. However, to distinguish the model from other factorial alternatives, we tested the same model with some variations to it, as presented in Table 2. As can be seen in Table 2, the fit of the model is at its relative best when testing the current model as originally presented in Figure 1. As such, this is the model the research will continue using. Moreover, further path analysis (with 95% CI and 5,000 resampling based on bias-corrected bootstrapping) is presented in Tables 3 and 4, and Figure 2.

Table 2. Measurement Model's SEM Analyses and Comparisons

Model	χ^2 (df)	Sig.	χ^2 /df	CFI	NFI	IFI	GFI	SRMR	RMSEA ¹
Base ²	9.21(1)	.002	9.21	.99	.99	.98	.98	.05	.20 (.10-.32)
OCB ³	12.88(1)	.000	12.88	.90	.91	.88	.94	.08	.17 (.15-.25)
Leadership ⁴	8.46(1)	.000	8.46	.84	.87	.89	.90	.05	.26 (.13-.37)

Notes. (1) 90% CI. (2) Base = original model as depicted in Figure 1. (3) OCB variable combined as one variable instead of its two dimensions. (4) Leadership variable combined as one continuous variable instead of two

Table 3. Path analysis for the full research model

Path		SE	t-test	Sig.	
Org. Politics	→ Resilience	.56	0.06	9.66	.000
Org. Politics	→ Transactional	.51	0.04	8.48	.000
Org. Politics	→ Transformational	.39	0.06	6.21	.000
Org. Politics	→ OCB-I	.15	0.06	2.39	.017
Org. Politics	→ OCB-O	-.07	0.05	-1.21	.227
Resilience	→ OCB-I	.60	0.06	9.70	.000
Resilience	→ OCB-O	.76	0.05	12.78	.000
Transactional	→ OCB-I	-.08	0.09	-1.36	.172
Transactional	→ OCB-O	-.46	0.07	-7.93	.000
Transformational	→ OCB-I	.12	0.07	1.93	.049
Transformational	→ OCB-O	.04	0.06	0.59	.556

Notes: SE = standard error. Org. = organizational. Transformational = transformational leadership style. Transactional = transactional leadership style. OCB-I = *interpersonal* dimension of organizational citizenship behaviors. OCB-O = *organizational* dimension of organizational citizenship behaviors

Table 3 depicts the indirect effects analyses via bootstrapping. As can be seen, transformational leadership style, transactional leadership style, and resilience act as mediators between Organizational Politics and OCB-I/OCB-O (an exception is the mediation effect between Organizational Politics and OCB-O which is non-significant ($p = .182$ and $p = .159$, respectively)).

Table 4. SEM bootstrapping (95% CI) for the standardized indirect effects

Path	LL	UL	Sig.
Organizational Politics → Resilience → OCB-I	0.26	0.47	.000
Organizational Politics → Resilience → OCB-O	0.28	0.53	.000
Organizational Politics → Transactional → OCB-I	-0.27	-0.06	.003
Organizational Politics → Transactional → OCB-O	-0.02	0.15	.182
Organizational Politics → Transformational → OCB-I	0.05	0.27	.000
Organizational Politics → Transformational → OCB-O	-0.02	0.21	.159

OCB-I = *interpersonal* dimension of organizational citizenship behaviors. OCB-O = *organizational* dimension of organizational citizenship behaviors; LL = lower limit of CI; UL = upper limit of CI; (1) Mediators = transformational leadership + transactional leadership + resilience

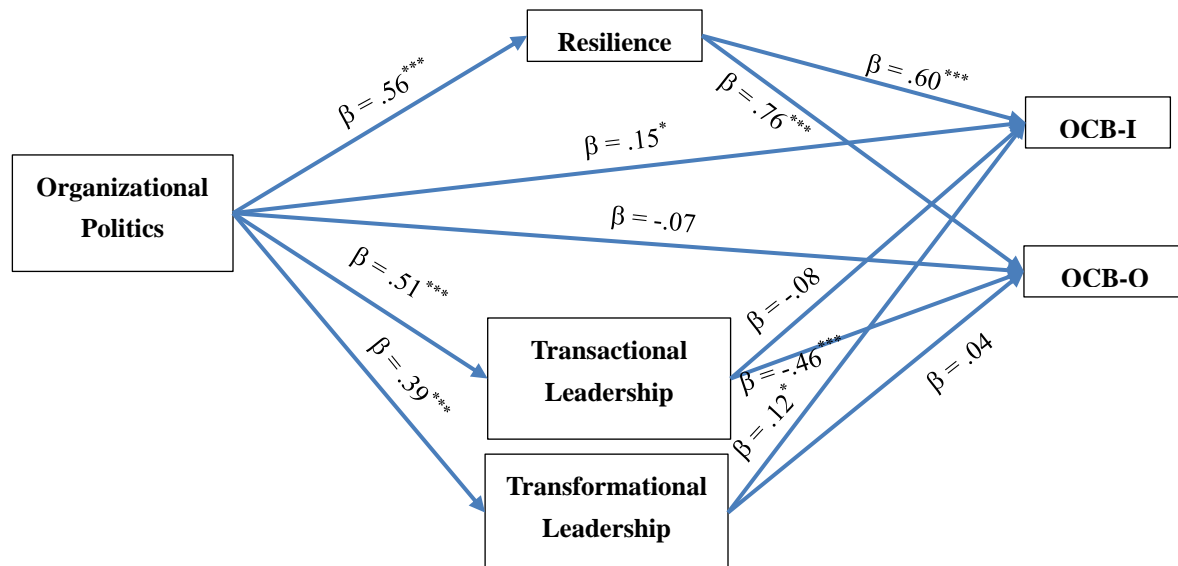


Figure 2. Path Analysis and Standardized Regression Coefficients for the Research Model

Notes: *p < .05, **p < .01, ***p < .001. OCB-I = interpersonal dimension of organizational citizenship behaviors. OCB-O = organizational dimension of organizational citizenship behaviors

4. Discussion

As indicated in the introduction, the first generation of OCB research portrayed this class of work-related behavior as a reflection of benevolent attitudes and a predisposition of the “good soldier”. This notion was later challenged by other researchers, who questioned the validity of this assessment (Bolino, Klotz, Turnley, & Harvey, 2013). Bolino (1999) suggested, for example, that OCB may be impression-enhancing and self-serving. Although, by definition, OCB is not officially rewarded by the organization, there may yet prevail an informal expectation by management that OCB would occur and, consequently, employees would feel compelled to behave as good citizens and to create the impression of engagement in OCB (Porpora, 1989; Vigoda-Gadot, 2006). We, therefore, assume that a self-reported OCB score reflects two components; namely, (a) actual citizenship behavior, and (b) an attempt to establish an *impression* of OCB.

Based on the results of this investigation, we could suggest further that the motivation to perform OCB could be *multilayered*. That is to say, beyond the benevolent motivation, OCB may be a reaction to an *ambiguous environment*, where the employee is unsure about the justice in the reward system. Under such conditions, the employees may (a) diversify their work-related positive activities, and (b) invest more efforts in advertising such actions, in the hope that such diversification would increase the probability of gaining personal benefits.

This suggested mechanism may explain the strong positive correlation found between the perception of organizational politics and self-reported OCB. The close association between these two factors may indicate that in a highly political climate, in which the rules governing the allocation of organizational benefits and rewards are uncertain and perceived as unjust, there is a greater tendency to increase the scope of informal work-related behaviors beyond the formal set of requirements. Simultaneously, as indicated, those same employees attempt to

create an impression of OCB in the hope that such tactics improve their image in the eyes of those who control their organizational benefits, including promotion within the organization. On the other hand, given a lower perception of OP, there is greater certainty about how job behavior is rewarded, and there is a lesser need to create an impression, either genuine or false, of contributing in other ways to the organization. This finding supports Ralston and Elsass's hypothesis that a high perception of OP leads to a high level of impression management efforts (Ralston & Elsass, 1989). Our interpretation of the results suggests that employees may use OCB as a coping mechanism to overcome the threatening impact of political climate.

The hypothesized effects of the three mediating variables were clearly supported by the results. Employees perceive their work environment through a complex stream of cues from various sources. The perception of OP, as well as the perception of one's superior, rely on sources such as coworkers' gossip and information, personal experiences, and the assessment of individuals in one's surroundings. The processing of this complex data is probably also affected by personality characteristics. The consequent employee behavior reflects the way such perceptions are combined. This study proposed a mediation pattern of relations. The results demonstrate that transformational leadership and transactional leadership, respectively, mediate the relationship between OP and OCB significantly, albeit in opposite directions.

The findings concerning transactional leadership were significant only with regard to OCB-I, the interpersonal dimension of organizational citizenship behaviors. It was found that the stronger the perception of the leader as transactional, the weaker the positive relations between OP and OCB-I. As noted, the transactional leader emphasizes a system that rewards specific desirable behaviors and punishes undesirable behavior among followers. The stronger this leadership style is, the more clarity there is in the atmosphere, and the greater the confidence that behavior is monitored and rewarded systematically and predictively. Subordinates increasingly feel that they know what is expected of them, and which behaviors will be rewarded. Such clarity reduces the need among employees to expand their efforts to activities outside their defined role or to inflate the impression of OCB in a self-reported questionnaire. In that respect, the atmosphere of mistrust and uncertainty created by a political climate in the organization is mediated by the extent to which an atmosphere of clarity is induced by the transactional leader.

By way of contrast, transformational leaders operate as role models: They tend to create a group identity among their followers, and they inspire and encourage independence among that group's membership. Transformational leaders do not offer specific clarity or attempt to reduce an existing level of the political climate. Presumably, because this leadership style empowers the group members, the superior is less likely to shield them from a highly-charged political climate, where certainty about the rules of reward allocation is lacking. The stronger the superior's transformational style is, the more the employees are inclined to rely on their own resources that incorporate making greater attempts to develop an image of a high OCB performer in the hope that a wider range of positive behaviors may work in their favor.

Resilience was also found to be a significant mediator of the relationship between OP and OCB. More specifically, the association between OP and OCB becomes stronger when the level of personal resilience is higher. As hypothesized, the more resilient individual is capable of handling the stress resulting from the political climate, and acts positively and more intensely to emphasize the venue of citizenship behavior attempting to diversify the efforts that potentially create a positive impression.

In summary, the results of this study point towards an interesting and as yet unexplored facet of Organizational Citizenship Behavior. Originally, OCB was described as employees' discretionary actions beyond their formal job descriptions, which are not compensated by the organization. The pattern of relationships among this study's variables, however, indicates that when there is a lack of trust that stems from perceived unfairness and injustice in the organization's system of reward allocations, there is greater inclination among employees to enhance OCB, or to promote the impression of OCB, presumably in the hope of improving the probability of reward.

As we observed, a higher organizational political climate is associated with higher OCB. This association is strengthened under high transformational leadership, but reduced under transactional leadership, which is associated with clearer reward exchange rules. Highly resilient employees, who trust their ability to improve their situation, also tend to increase OCB when OP is higher.

5. Conclusion

5.1 The Contribution of This Study

The results of this study contribute significantly to our existing knowledge about the dynamics of organizational politics and about OCB. They offer a new perspective to our understanding of the concepts of OP and OCB. The

findings suggest that a high level of political behavior in organizations, which, in itself, is viewed negatively by researchers, may actually encourage some very desirable employee behaviors; namely, OCB. In view of the main body of OCB literature, the findings support the relatively recent claims that there is a darker side to OCB, and that it does not necessarily stem from organizational involvement or genuine personal benevolent attitudes. It may rather reflect coping behavior in the face of uncertainty, concern and fear. If the present findings are further supported and validated by future research, the need will arise for some new discussion of both OCB and OP, revisiting the behavioral implications of both in organizational life.

5.2 Implications for Further Research

Validate and provide further support for the findings. Additional research is clearly needed to further explore the more specific nature of this pattern. The present model should be applied to additional diversified samples using qualitative measures such as interviews and as well as quantitative measures not limited to self-reporting questionnaires.

Impression management. A related question in the context of the present findings pertains to the distinction made in the literature between genuine OCB and the impression management of OCB. Future research should focus on this question and develop methodology capable of making this distinction. It is expected that the pattern of relations reported in this study will apply specifically to the impression management of OCB rather than to genuine OCB. Research support for this hypothesis will extend and provide further validity to the present interpretation of the finding.

Examine the extent of OCB stemming from OP. The scope of OCB motivated by OP should be studied and compared with OCB stemming from benevolent motives. Obviously, empirical research in this direction will have to rely on self-reported questionnaires as well as interviews.

Explore additional mediating variables. The present research focused on leadership and resilience as mediating variables. Future research should explore additional mediating and possibly intervening variables in this context in order to enrich our detailed understanding of the scope of relationship between OP and OCB.

Examine the sustainability of OCB stemming from high OP. It may be assumed that OCB resulting from a high OP climate will be less sustainable and more opportunistic than OCB resulting from real good citizenship. Future longitudinal research should attempt to address this question in organizations.

We hope that the present study will instigate further investigation of these proposed directions.

References

- American Psychological Association. (2014). *The Road to Resiliency*. Retrieved from <https://studentsuccess.unc.edu/files/2015/08/The-Road-to-Resiliency.pdf>
- Avolio, B. J., & Bass, B. M. (1991). *The full range of leadership development*. New York, NY: Bass, Avolio & Associates.
- Bacharach, S. B. (2005). *Get them on your side*. Avon, Mass: Platinum Press.
- Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Che & C. L. Cooper (Eds.), *Wellbeing: A complete reference guide* (Vol. III, pp.37-64). New York: Wiley Blackwell. <https://doi.org/10.1002/9781118539415.wbwell019>
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: Free Press.
- Bass, B. M. (2007). From transactional to transformational leadership: Learning to share the vision. In R.P. Vecchio (Ed.), *Leadership: Understanding the dynamics of power and influence in organizations* (2nd ed., pp. 302-317). Notre Dame, IN: University of Notre Dame Press. <https://doi.org/10.2307/j.ctvpg85tk.29>
- Bergeron, D. M., & Thompson, R. S. (2020). Speaking up at work: The role of perceived organizational support in explaining the relationship between perceptions of organizational politics and voice behavior. *Journal of Applied Behavioral*, 56, 195-215. <https://doi.org/10.1177%2F0021886319900332>
- Bogler, R., & Somech, A. (2019). Psychological capital, team resources and organizational citizenship behavior. *Journal of Psychology*, 153(8), 784-802. <https://doi.org/10.1080/00223980.2019.1614515>
- Bolino, M. C. (1999). Citizenship and Impression Management: Good Soldiers or Good Actors? *Academy of Management Review*, 24(1), 82-98. <https://doi.org/10.5465/amr.1999.1580442>
- Bolino, M. C., Klotz, A. C., Turnley, W. H., & Harvey, J. (2013). Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior*, 34(4), 542-559. <https://doi.org/10.1002/job.1847>

- Bonnano, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, *59*(1), 20-28. <https://doi.org/10.1037/0003-066X.59.1.20>
- Britt, T. W., Shen, W., Sinclair, R. R., Grossman, M. R., & Klieger, D. M. (2016). How much do you really know about employee resilience? *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *9*(02), 378-404. <https://doi.org/10.1017/iop.2015.107>
- Carver, C. S. (1998). Resilience and thriving: Issues, models and linkages. *Journal of Social Issues*, *54*(2), 245-266. <https://doi.org/10.1111/j.1540-4560.1998.tb01217.x>
- Chernyak-Hai, L., & Rabenu, E. (2018). The new era workplace relationships: Is social exchange theory still relevant? *Industrial and Organizational Psychology*, *11*(3), 456-481. <https://doi.org/10.1017/iop.2018.5>
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety*, *18*, 76-82. <https://doi.org/10.1002/da.10113>
- Crawford, E., LePine, J. A., & Rich, B. L. (2010). Linking Job Demands and Resources to Employee Engagement and Burnout: A Theoretical Extension and Meta-Analytic Test. *Journal of Applied Psychology*, *95*(5), 834-48. <https://doi.org/10.1037/a0019364>
- Drory, A. (1993). Perceived political climate and job attitudes. *Organizational Studies*, *14*, 59-71. <https://doi.org/10.1177/014920639201800105>
- Ferris, G. R., & Kacmar, K. M. (1992). Perceptions of organizational politics. *Journal of Management*, *18*, 93-116. <https://doi.org/10.1177/014920639201800107>
- Ferris, G. R., Russ, G., & Fandt, P. (1989). Politics in organizations. In R.A. Giacalone & P. Rosenfeld (Eds.), *Impression Management in the Organization* (pp.143-170). Hillsdale, N.J.: Erlbaum.
- Fikretoglu, D., & McCreary, D. R. (2012). *Psychological Resilience: A brief review of definitions, and key theoretical, conceptual and methodological issues* (Technical Report 2012-012). Toronto, ON: Defense R&D.
- Gorman, C. A., Meriac, J. P., Overstreet, B. L., Apodaca, S., McIntyre, A. L., Park, P., & Godbey, J. N. (2012). A meta-analysis of the regulatory focus nomological network: Work-related antecedents and consequences. *Journal of Vocational Behavior*, *80*(1), 160-172. <https://doi.org/10.1016/j.jvb.2011.07.005>
- Harris, K. J., Harris, R. B., & Wheeler, A. R. (2009). Relationships Between Politics, Supervisor Communication, and Job Outcomes. *Journal of Applied Social Psychology*, *39*(11), 2669-2688. <https://doi.org/10.1111/j.1559-1816.2009.00543.x>
- Henderson, A. A., Foster, G. C., Matthews, R. A., & Zickar, M. J. (2019). A Psychometric Assessment of OCB: Clarifying the Distinction Between OCB and CWB and Developing a Revised OCB Measure. *Journal of Business and Psychology*, *35*, 1-16. <https://doi.org/10.1007/s10869-019-09653-8>
- Henderson, A. A., Foster, G., Mathews, R. A., & Zickar, M. J. (2020). A psychometric distinction between OCB and CWB and developing a revised OCB measure. *Journal of Business and Psychology*, *35*, 697-712. <https://doi.org/10.1007/s10869-019-09653-8>
- Hernandez, M., Eberly, M., Avolio, B. J., & Johnson, M. D. (2011). The loci and mechanisms of leadership: Exploring a more comprehensive view of leadership theory. *The Leadership Quarterly*, *22*(6). <https://doi.org/10.1016/j.leaqua.2011.09.009>
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, *6*(4), 307-324. <https://doi.org/10.1037/1089-2680.6.4.307>
- Hochwarter, W. A., Rose, C. C., & Jordan, S. L. (2020). Perceptions of organizational politics research: Past, present and future. *Journal of Management*, *46*, 879-907. <https://doi.org/10.1177/0149206319898506>
- Jawahar, I. M., Schreurs, B., & Mohammed, S. J. (2018). How and when LMX quality relates to counterproductive performance: a mediated moderation model. *Career Development International*, *23*(6/7), 557-575. <https://doi.org/10.1108/CDI-05-2018-0134>
- Jung, D. I., & Avolio, B. J. (1999). Effects of leadership style and followers' cultural orientation on performance in group and individual task conditions. *Academy of Management Journal*, *42*(2), 208-218. <https://psycnet.apa.org/doi/10.2307/257093>
- Kacmar, K. M., & Carlson, D. S. (1997). Further validation of the perceptions of politics scale (POPS): A

- multiple sample investigation. *Journal of Management*, 23, 627-658.
<https://doi.org/10.1177/014920639702300502>
- Kacmar, K. M., Bozeman, D. P., Carlson, D. S., & Anthony, W. P. (1999). An examination of the perceptions of organizational politics model: Replication and extension. *Human Relations*, 52, 383-416.
<https://doi.org/10.1177%2F001872679905200305>
- Kanat-Maimon, Y., Elimelech, M., & Roth, G. (2020). Work motivations as antecedents and outcomes of leadership: Integrating self-determination theory and full range leadership theory. *European Management Journal*, 38, 555-564. <https://doi.org/10.1016/j.emj.2020.01.003>
- Kark, R., Katz-Navon, T., & Delegach, M. (2015). The Dual Effects of Leading for Safety: The Mediating Role of Employee Regulatory Focus. *Journal of Applied Psychology* 100(5), 1332-1348.
<https://doi.org/10.1037/a0038818>
- Kark, R., Van Dijk, D., & Vashdi, D. R. (2018). Motivated or demotivated to be creative: The role of self-regulatory focus in transformational and transactional leadership processes. *Applied Psychology: An International Review*, 67(1), 186-224. <https://doi.org/10.1111/apps.12122>
- Kipnis, D., Schmidt, S. M., & Wilkinson, I. (1980). Intraorganizational influence tactics: Explorations in getting one's way. *Journal of Applied Psychology*, 65(4), 440-452. <https://doi.org/10.1037/0021-9010.65.4.440>
- Ladebo, O. J. (2006) Perceptions of Organizational Politics: Examination of a Situational Antecedent and Consequences among Nigeria's Extension Personnel. *Applied Psychology: An International Review*, 55(2), 255-281. <https://doi.org/10.1111/j.1464-0597.2006.00230.x>
- Lau, P. L., Wilkins-Yel, K. G., & Wong, Y. J. (2020). Examining the indirect effects of self- concept on work readiness through resilience and career calling. *Journal of Career Development*, 47, 551-564.
<https://doi.org/10.1177%2F0894845319847288>
- Madrid, H. P., Diaz, M. T., Leka, S., Leiva, P. I., & Barros, E. (2018). A finer grained approach to psychological capital and work performance. *Journal of Business and Psychology*, 33(4), 461-477.
<https://doi.org/10.1007/s10869-017-9503-z>
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227-238. <https://doi.org/10.1037/0003-066X.56.3.227>
- Meredith, L. S., Sherbourne, C. D., Gailliot, S. J., Hansell, L., Ritschard, H. V., Parker, A. M., & Wrenn, G. (2011). *Promoting Psychological Resilience in the U.S. Military*. Santa Monica, CA: RAND Corporation.
- Newman, R. (2005). APA's Resilience Initiative. *Professional Psychology: Research and Practice*, 36(3), 227-229. <https://doi.org/10.1037/0735-7028.36.3.227>
- Oren, L., Tziner, A., Nahshon, Y., & Sharoni, G. (2013). Relations between OCBs, organizational justice, work motivation and self-efficacy. *Amfiteatru Economic Journal*, 15(34), 505-517.
- Organ, D. W. (1988). *Organizational Citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Oshio, A., Taku, K., Hirano, M., & Saeed, G. (2018). Resilience and Big Five personality traits: A meta-analysis. *Personality and Individual Differences*, 127, 54-60. <https://doi.org/10.1016/j.paid.2018.01.048>
- Parker, M. R., Subrahmanian, T., & Hussain, I. (in press). Creating organizational citizens: How and when supervisor versus peers led role interventions change Organizational Citizenship Behavior. *Journal of Applied Psychology*.
- Perilla-Toro, L. E., & Gómez-Ortiz, V. (2017). Relación del estilo de liderazgo transformacional con la salud y el bienestar del empleado: El rol mediador de la confianza en el líder [Relationship of transformational leadership style with employee health and well-being: The mediating role of trust in the leader]. *Journal of Work and Organizational Psychology*, 33(2), 95-108. <https://doi.org/10.1016/j.rpto.2017.02.005>
- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Blume, B. D. (2009). Individual-and organizational-level consequences of organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology*, 94(1), 122-141. <https://psycnet.apa.org/doi/10.1037/a0013079>
- Podsakoff, P. M., Mackenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903. <https://doi.org/10.1037/0021-9010.88.5.879>

- Porpora, D. V. (1989). Four concepts of social structure. *Journal for the Theory of Social Behavior*, 19(2), 195-211. <https://doi.org/10.1111/j.1468-5914.1989.tb00144.x>
- Ralston, D. A., & Elsass, P. M. (1989). Ingratiation and impression management in the organization. In R. A. Giacalone & P. Rosenfeld (Eds.), *Impression Management in the Organization* (pp. 235-249). Hillsdale, NJ: Lawrence Erlbaum associates.
- Shkoler, O., & Tziner, A. (2020). Leadership styles as predictor of work attitudes: A moderated-mediation link. *Amfiteatru Economic*, 22, 164-187. <https://doi.org/10.24818/EA/2020/53/164>
- Spitzmuller, M., Van Dyne, L., & Ilies, R. (2008). Organizational citizenship behavior. A critical review and extension of its nomological network. In C. Cooper & J. Barling (Eds.), *Handbook of Organizational Behavior*. Sage Publishing.
- Tehseen, S., Ramayah, T., & Sajilan, S. (2017). Testing and controlling for common method variance: a review of available methods. *Journal of Management Sciences*, 4(2), 142-168. <https://doi.org/10.20547/jms.2014.1704202>
- Turnipseed, D. L. (2018). Emotional intelligence and OCB: The moderating role of work locus of control. *The Journal of Social Psychology*, 158(3), 322-336. <https://doi.org/10.1080/00224545.2017.1346582>
- Tziner, A., & Sharoni, G. (2014). Organizational citizenship behavior, organizational justice, job stress, and work-family conflict: Examination of their interrelationships with respondents from a non-Western culture. *Revista de Psicología del Trabajo y de las Organizaciones*, 30(1), 35-42. <https://doi.org/10.5093/tr2014a5>
- Tziner, A., Shkoler, O., & Fein, E. C. (2020). Examining the effects of cultural value orientations, emotional intelligence, and motivational orientations: How does LMX mediation and gender-based moderation make a difference? *Frontiers in Psychology*, 11, 2717. <https://doi.org/10.3389/fpsyg.2020.502903>
- Vigoda-Gadot, E. (2006). Compulsory Citizenship Behavior: Theorizing Some Dark Sides of the Good Soldier Syndrome in Organizations. *Journal for the Theory of Social Behavior*, 36(1), 77-93. <https://doi.org/10.1111/j.1468-5914.2006.00297.x>
- Vigoda-Gadot, E. (2003). *Developments in organizational politics: How political dynamics affect employee performance in modern work sites*. Cheltenham, UK: Edward Elgar.
- Vigoda-Gadot, E., & Drory, A. (Eds.). (2016). *Handbook of organizational politics: Looking back and to the future* (2nd ed.). Cheltenham, UK: Edward Elgar. <https://doi.org/10.4337/9781784713492>
- Vigoda-Gadot, E., & Kapun, D. (2005). Perceptions of politics and perceived performance in public and private organizations: a test of one model across two sectors. *Policy & Politics*, 33(2), 251-276. <https://doi.org/10.1332/0305573053870185>
- Vigoda-Gadot, E., & Talmud, I. (2010). Organizational Politics and Job Outcomes: The Moderating Effect of Trust and Social Support. *Journal of Applied Social Psychology*, 40(11), 2829-2861. <https://doi.org/10.1111/j.1559-1816.2010.00683.x>
- Walpita, Y. N., & Arambepola, C. (2020). High resilience leads to better work performance in nurses: Evidence from South-Asia. *Journal of Nursing*, 28, 342-350. <https://doi.org/10.1111/jonm.12930>
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601-617. <https://doi.org/10.1177/014920639101700305>
- Xenikou, A. (2017). Transformational Leadership, Transactional Contingent Reward, and Organizational Identification: The Mediating Effect of Perceived Innovation and Goal Culture Orientations. *Frontiers in Psychology*, 8, Article 1754. <https://doi.org/10.3389/fpsyg.2017.01754>
- Yaffe, T., & Kark, R. (2011). Leading by example: The case of leader OCB. *Journal of Applied Psychology*, 96(4), 806-826. <https://doi.org/10.1037/a0022464>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Work-Life Balance Constructs and Job Satisfaction: Evidence from the Palestinian Investment Sector

Muna M. Khoury¹

¹ Doctoral Candidate, Antwerp University, Birzeit University, Palestine

Correspondence: Muna M. Khoury, Doctoral Candidate, Antwerp University, Birzeit University, Palestine.

Received: December 4, 2020

Accepted: January 5, 2021

Online Published: January 8, 2021

doi:10.5539/ibr.v14n2p13

URL: <https://doi.org/10.5539/ibr.v14n2p13>

Abstract

With the continuous evolution of globalization and the increasing technological openness between all countries worldwide, employees' awareness about the quality of life and balance between work and life matters has constantly been escalating. Although a tremendous body of literature internationally exists on Work-Life Balance and Job Satisfaction, yet previous scholars across the Palestinian context have not connectedly addressed these terms. Both Work-Life Balance and Job satisfaction matters have been recently getting more focus than expected due to the fast-forwarding life cycles and the continuous obnoxious and inferior political and economic situation that faces every person, family, society, and company in Palestine, which have a significant influence on the productivity and performance of both the Palestinian organizations and employees. The focus of this study is on the measurement of work-life balance and job satisfaction of employees and the exploration of the relationship between both terms at different Palestinian companies in the investment sector while exploring the critical working issues and personal life matters among employees with further examination on how the concept of WLB might affect job satisfaction. This study's key contribution is to highlight this relationship among the Palestinian organizations and thus be further addressed and considered across all Palestine and in other developing countries with similar political and economic threats, especially after having this relationship positively correlated by the current research results.

The study was conducted on 502 employees from 7 different investment companies in Palestine. The statistical tests that were processed and the interference relationships tested confirmed a positive relationship between the three constructs of Work-Life Balance and Job Satisfaction.

Keywords: work-life balance, work/family conflict, job satisfaction, work-life balance scale, job satisfaction scale

JEL Classification: M12, M19

1. Introduction

Work-Life Balance is considered one of the most urgent topics that need research to be carried on, as the concept's details exhibit the main issues affecting employees' performance. Work-Life Balance (WLB) is a state of well-being that any person should achieve if he/she could reach a balance between family, friends, and work responsibilities. All workers should have a right to practice careers that do not hinder their ways of finalizing their personal-life matters. Many people do not even recognize that they are in a state of imbalance and look to balance their work-life schedules.

The relationship between work and family life is connected, and each has a direct effect on the other one. This implies that, work responsibilities can affect workers' personal life, and personal life matters can also affect people's work responsibilities (Hill, Hawkins, Ferris, & Weitzman, 2001; Kuzulu et al, 2013, Weiss, 2002; Munn, 2013; Peeters, Montgomery, Baker, & Schaufeli, 2005). The term WLB reveals the view that both personal life and work can be viewed as complementary, rather than competing, components of life (Holliday & Manfredi, 2004; Lewis, 2000). The balance between work and life matters can be attained visualizing the concept of WLB as a two-way operation that contemplate both employee's and employer's needs (Lewis, 2000).

This study seeks to answer several issues concerning the effect of WLB on employee's job satisfaction at the selected companies as the study/research population. Therefore, several questions are built up, forming the basis for this research; these questions are as follows:

- 1- What type of relationship exists between job satisfaction and the three components of work-life balance (WLB); work interference with personal life (WIPL), personal life interference with work (PLIW), and work personal life enrichment (WPLE)?
- 2- Do the employees at the representative companies struggle in reconciling work with life commitments?
- 3- What WLB programs would enable the employees to achieve an improved status of work-life balance?

Although work-life balance is a well-known term in Western countries and organizations, there have been no studies on Palestine. Therefore, there is a list of reasons behind the desperate need to administrate the concept of work-life balance and programs in any organization in Palestine. The current political situation by which the Palestinian territories face the Israeli occupation is one major reason why Palestinian companies need to adopt Work-life Balance in their work environment. Another fact is the current continuously challenging economic situation, which loads both the Palestinian employees and employers with stress to balance their various responsibilities. Coping with these current continuous political and economic situations burdens the companies to seek how to get the maximum performance out of their employees while being challenged to maintain the regular working routine. Thus eventually, adapting work-life balance policies that shall bring benefits for all employees regardless of their managerial positions.

2. Literature Review

2.1 Work-Life Balance

The beginnings of the work-life balance phenomenon began in the late 1970s. The purpose was to describe the balance between personal life and work-life of working homemakers that are home and wish to go back to work. (Families Working, 2009). "Since then, work-life balance practices have been studied across disciplines including economics, gender studies, information systems, management, social psychology, and sociology" (Beauregard & Henry, 2009). Work-Life Balance has been initially studied in the "nineteenth century when workers and unions successfully campaigned against long working hours in factories, and it became apparent that a decrease in working hours had no significant impact on production (Bosworth and Hogarth, 2009). During the twentieth century," many studies (e.g., Mayers, 1924) took place on the WLB concept, which resulted in emphasizing the role of human relations and the effect of reducing the working hours on workers' output. "In 1938, the U.S. government introduced the *Fair Labor Standards Act* with a maximum workload of 44 hours per week" (U.S. Department of Labor, 2013). Later, "in the 1980s, companies began to introduce family-friendly policies, such as flexible work schedules and telecommuting". Such policies were initially concerned with working women but eventually "they accommodated women's and men's needs. "The current notion of WLB gained currency, with a view to protecting family life in an increasingly competitive workplace and career-driven society" (Parakati, 2010). In the last few years, it has been highlighted in many studies that social, economic, and cultural changes impact the flow of the working day of the people. "The rise in the living standards and the importance of work and family life have intensified the demands on individuals, on work, and on family" (Chandra, 2012; Darcy, McCarthy, Hill, & Grady, 2012; Kuzulu, Kurtuldu, & Ozkan, 2013; and Pattusamy & Jacob, 2016).

"Formal definitions of the term work-life balance vary but generally converge around the idea that this balance is not about the equivalent distribution of time between professional and personal activities, but rather general satisfaction with one's life" (Berry, 2010). However, Felstead, Jewson, Phizacklea, and Walters (2002), defined work-life balance in their work as "the relationship between institutional and cultural times and spaces of work and non-work in societies where income is predominantly generated and distributed through labor markets." Whereas the sociologists Estes and Michael (2005) argued that a single definition of work-life balance does not exist and no such definition that would accumulate agreement of many parties exist. Nevertheless, they "suggested that work-life balance practices refer to one of the following: organizational support for dependent care, flexible work options, and family or personal leave." "Work-life balance is a concept that deals with the ability of individuals, irrespective of the age or their gender, to get 'into a flow' that allows them to combine the demands of work and other non-work responsibilities and activities" (Hughes and Bonzionelos, 2007).

The concept of Work/life Balance contains many parts, including the period along which people work, the timeframe in which they work, and their location (Glynn et al., 2002). These aspects are translated in a range of work policies and procedures, e.g., flexible working hours, part-time working, working from home, compressed workweeks, temporary working, teleworking, career breaks, and annualized hours (Maxwell and McDougall, 2004).

"In Practice, WLB involves adjusting work patterns so that everyone, regardless of age, race, or gender can find

a rhythm that enables them more easily to combine work and their other responsibilities and aspirations” (Pillinger, 2001:1).

Nowadays, WLB is considered a significant matter for both employers and employees that they need to tackle. It is even evident that many of the workplace challenges are believed to be a result of unbalanced work-family matters. “(Berg, Kalleberg, and Appelbaum, 2003) in his article had mentioned that job attributes, organizational culture, and its pertaining environment and employee-friendly policies have a positive and progressive influence on individual WLB”.

2.2 WLB Policies/Practices

Research across the years have shown numerous work-life balance flexible working schedules, practices, policies, programs work arrangements concerning leave breaks, parenting and pregnancy, and additional work provisions .

“Work-life balance policies help employees in managing their work and family in a better way and enhance their attitudes and behaviors such as organizational attachment (Groover and Crocker, 1995), Job Satisfaction (Kossek and Ozeki, 1998) and intention to stay (Kossek, & Lobel, (1996).”. Dockel (2003), “declared that work-life policies have a strong and significant relationship with organizational commitment.” Lockwood (2003), in his work, highlighted that senior management has a vital role in managing and designing work-life balance practices. These practices increase workers’ motivation, and thus their performance will increase across time. Concerning Eisenberger et al. (1986) Perceived Organizational Support Theory, when employees at the workplace acknowledge their employer's attention and care, support in satisfying their employees’ personal needs and the admiration to their values; the employees in return shall show higher commitment levels and satisfaction at the workplace. Emphasizing that the more engaged workers are at the workplace, they experience job satisfaction (Bond et al. 2005). Nevertheless, contrary to this view, when employers reveal less support and concern to their subordinates' matters (Kim, Lee & Sung 2013), workers may, in return, admire less their employers’ efforts in facilitating the settlements of their staff personal work-life obligations. Eventually this shall reversely impact the workers’ work behaviors at the workplace (Fransman, 2014).

Diverse research findings have displayed that improper balance between work responsibilities and life obligations shall result in severe ramifications of various trends including but not limited to stress and stress-related health problems, mismanagement of family issues and diverse, poor self-admiration, depression, lack of energy, fatigue, sleep disorders, addictions, escalated turnover rates, burnout issues, violence at the workplace, decrease in productivity levels, and reduced organizational commitment. All of this, in addition to many more consequences, shall negatively affect the overall productivity of the workplace, which will end in lower profitability in the long run (Allen et al. 2000; Anderson, Coffey & Byerly 2002; Hännig & Bauer 2009; Hughes & Bozionelos 2007; and Thomas & Ganster, 1995).

Modern organizational structures are taking into consideration the development of work-life balance practices to assist employees in managing work-life challenges by minimizing their work-life conflicts and thus performing better at the workplace. A study on 732 manufacturing firms in Germany, France, UK, and the U.S. showed that those firms that offer better work-life balance practices experienced higher employee productivity and that adapting work-life policies shall result in higher employee levels of job satisfaction and organizational commitment.

2.3 Work-Family Conflict

“The topic of work-family conflict has been of particular interest because recent studies have demonstrated that 40% of employed parents experience work-family conflict for at least a period in their lives” (Allen et al., 2000). Work-family conflicts occur for many reasons, precisely this state of conflict happens when challenges at work interfere with family daily routines and sequence of family life; “pressures in the family environment might be the presence of young children, elder care responsibilities, interpersonal conflicts within the family, and the presence of unsupportive family members” (Chernyak-Hai & Tziner, 2016; and Greenhaus, 2002). According to the Third European Working Conditions Survey (Paoli & Merllie, 2000), which took place in 15 European countries, 10% of the surveyed workers faced the challenge of meeting their family obligations due to the long hours they spend at the workplace.

Moreover, many studies exploring the conflict resulting from the mismanagement that workers face in trying to balance their work demands and personal responsibilities highlight the negative effect of that conflict on their psychological well-being and their level of satisfaction at the workplace (Frone et al., 1992; Hughes & Galinsky, 1994; Kossek & Ozeki, 1998; Kinnunen & Mauno, 1998; Cuthbertson, K., et al., 2005).

2.4 Work-Family Enrichment

However, it is not always the case that work, and family are in conflict all the time, and that was the entrance for some researchers to propose the concept of work-family enrichment by Greenhaus and Powell (2006), who “defined this concept as the enhancement performance and positive affect in one role from the experiences in another role.” “According to Grzywacz (2000), work-family enrichment is the positive synergy between work and family”. “The work experiences might enrich the quality of family life, or family experiences might contribute to the working life quality” (Jain & Nair, 2013; Ruikar & Abhyankar, 2015). “Balance must be considered as a social structure, and work-family balance should be considered as an important construct when expectations of the individual and others around him/her are shared and agreed upon” (Grzywacz & Carlson, 2007). It has been proven that work-family balance is directly linked with organizational engagement and satisfaction (Omran & Kamel, 2016). In addition, Pattusamy and Jacob (2017). showed that “work-family balance mediates the relationship between work-family conflict and job and family satisfaction.” As this concept was more and more explored by many studies, the term work-life “balance replaced work-family balance because life in this sense means everything outside work” (Carlson, Grzywacz, & Zivnuska, 2009; and Haar, 2013). Another study done by Baral (2010) including 485 employees working in various organizations in India, revealed that “men and women in India do not experience work-family conflict whereas they feel more of family-enrichment”.

2.5 WLB Scale - Hayman (2005)

The tool used in this research depended partially on the WLB scale developed by Hayman (2005) scale, adapted for measuring work/life balance at the companies under study. It consists of 15-item; this scale was originally adapted from an instrument developed by Fisher-McAuley et al. (2003). The scale was originally designed to capture employee perception on WLB; The original scale consists of 19 items. The scale was later simplified by constructing three dimensions. The three dimensions are: Work Interference with Personal Life (WIPL), Personal Life Interference with Work (PLIW), and Work/Personal Life Enhancement (WPLE). These three dimensions represent two theories that are usually used to explain the link between family and work; the conflict approach and the enrichment approach. These two theories are opposite to each other in terms of concept and content. The “conflict approach assumes that combining work and family roles is demanding and therefore leads to conflict” (Edwards & Rothbard, 2000). In contrast, the “enrichment approach emphasizes that life can enrich work outcomes and vice-versa” (Greenhaus & Powell, 2006).

2.6 Job Satisfaction (J.S.)

“Job satisfaction has been an area of interest for many researchers over the past several decades” (Hackman & Oldhman, 2001).

As defined by Furnham (1997), job satisfaction is a positive feeling about the work or the work environment. Weiss, H.M. (2002) defined job satisfaction as a favorable emotional reaction and attitude that one experiences at work resulting from a “pleasurable emotional state.” It was also defined as a “positive attitude” that would increase productivity (Daft & Marcic, 2001). Others defined it as a “reflection of an employee’s feelings about various aspects of work” (Stone, 2005).

Moreover, Konhauser (2005) noted that job satisfaction is positively proportionate with one’s state of happiness, and that job satisfaction has also a direct link with impact employees’ performance, absenteeism, effectiveness, and their decision to leave the work.

Many surveys were conducted concerning the relationship between implementing work/life balance programs and policies and job satisfaction at the workplace, and it was found that “Work-life balance is directly related to employee satisfaction” (Susi.S, 2010). As a result of these studies, it became apparent that there was a need to explore in-depth many practical terms for any organization, especially the work-family concept. As research improved in this area of study, it became highlight that Human Resource Management needs to focus more on numerous work-family friendly practices, programs, and policies, aiming to leverage job satisfaction (Kinnie et al., 2005). Robbins (2004) noticed that workers with increased job satisfaction levels experience positive behaviors towards their jobs, whereas people with decreased levels of job satisfaction have opposite behaviors at the workplace.

Eventually, many studies showed that work-life balance is positively linked to job and life satisfaction” (Haar et al., 2014)), “well-being” (Frone, 2000), “job and marital satisfaction” (Brough et al., 2014; Kossek & Ozeki, 1998), and “negatively related to “job stress” (Behson, 2002), “anxiety and depression” (Haar et al., 2014), and “psychological strain” (Brough et al., 2014)

2.7 Job Satisfaction Scale - MSQ

One of the major challenges when “measuring job satisfaction is that it is possible to be satisfied with some aspects of the job and at the same time be dissatisfied with others” (Spagnoli et al., 2012) . Some of the most popular and famous tools used in measuring job satisfaction are the Minnesota Satisfaction Questionnaire (Weiss et al., 1967), the Job Descriptive Index (Smith et al., 1969), and the Job Satisfaction Survey (Spector, 1985). Whereas the second approach looks at the job satisfaction from a macro point of view and measures the employee directly by asking him/her about their overall feelings about the job, being frequently build up with only one item (Wanous et al., 1997). The Minnesota Satisfaction Questionnaire (MSQ); one of the outputs from the "Work Adjustment Project" at the University of Minnesota and was developed by Weiss (1967) to measure job satisfaction levels. The theory underlying this work was the “assumption that work fit is dependent on the correspondence between the individual skills and the reinforcements that exist in work”. The MSQ has two versions: long and short. The long version consists of 100 questions that assess 20 subscales. The subscales are: “Ability Utilization, Achievement, Activity, Advancement, Authority, Company Policies, Compensation, Co-workers, Creativity, Independence, Moral Values, Recognition, Responsibility, Security, Social Status, Social Service, Supervision--Human Relations, Supervision—Technical, Variety, Working Conditions.” The MSQ short version is adapted in this study while using only 14 items of the 20.

2.8 Related Studies on WLB

Over the years, many researchers conducted several studies on the relationship between WLB and job satisfaction. "Nadeem & Abbas (2009) conducted a study in Pakistan to analyze the relationship between WLB and job satisfaction". The research was based on data collected from 157 employees working in the public and private sectors. The results of their study showed that work overload does not influence job satisfaction.

Another study conducted by Mcnall et al. (2009) analyzed the “relationship between flexible work arrangements and job satisfaction.” The research was based on data collected from 220 employees. This study indicates that employees obtaining greater flexibility in companies' work arrangements, they experience higher satisfaction levels.

Later (Varatharaj et al., 2012) conducted another study in Chennai city to examine the relationship between job satisfaction and WLB. The research was based on data collected from 250 employees from different service sectors. The results of this study showed that WLB and job satisfaction share a positive relationship.

Moreover, research to analyze the relationship between work-life balance and job satisfaction of the working women was conducted by Yadav & Dabhade (2014). The research collected data from 150 women, half from the banking sector and a half from the education sector. The study results revealed the extent of the employees' commitment to their jobs that they do not put behind them if they face urgent living conditions.

Here, it is necessary to point out the need for the company's management to pay attention to these matters to ensure the best productivity by relying on creating a better state of purity in the relationship between life and work matters by providing support to them in how to control their life responsibilities and balance them with work responsibilities.

3. Methodology

In this study, Hayman (2005) simplified Work-Life Balance Scale, and the Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967) are used to achieve an answer to the research questions and to conduct the research findings.

3.1 Methods of Data Analysis and Interpretation

The data was captured into an access database where consistency checks were enforced. After completion of data entry, data were exported into SPSS for statistical analysis.

Simple statistical tools such as mean, range, and percentage have been used to analyze quantitative data. Other techniques were applied to check multi-collinearity and the correlations between the targeted questions as groups or as individual ones and the homoscedasticity, including Pearson's correlation coefficient test and multi-regression. For general characteristics of the sample, frequencies and cross-tabulation techniques were also applied. To reflect the changes applied to the negatively stated questions, the values of the five-category scale for the corresponding questions were also reversed as follows:

Table 1. Vales of Corresponding Questions

<i>Value</i>	<i>Score</i>
<i>Strongly Disagree</i>	<i>Strongly Agree</i>
<i>Disagree</i>	<i>Agree</i>
<i>Hesitated/Not Sure</i>	<i>Hesitated/Not Sure</i>
<i>Agree</i>	<i>Disagree</i>
<i>Strongly Agree</i>	<i>Strongly Disagree</i>

Before data analysis, the values of the five-category scale of the instrument were weighted from zero to five according to the following scoring table:

Table 2. Scoring Table

<i>Value</i>	<i>Score</i>
<i>Strongly Disagree</i>	<i>0</i>
<i>Disagree</i>	<i>25</i>
<i>Hesitated/Not Sure</i>	<i>50</i>
<i>Agree</i>	<i>75</i>
<i>Strongly Agree</i>	<i>100</i>

3.2 The Questionnaire

Some of the items in the instrument were negatively phrased. Before data analysis, these items were subjected to value conversion from negative to positive phrasing.

3.3 Data Collection and Sampling

The research population which according to (Sekaran, 2005) refers to the entire group of people, events, or things of interest that the researcher wishes to investigate; This study targeted a random sample of 932 employees on top of their positions at 7 different companies at the private sector in Palestine. The respondents were asked to fill an online self-reported questionnaire. The questionnaire was administered on the online platform 'SurveyMonkey' and an online link was distributed to all HR departments in the 7 companies under study. The HR managers took the responsibility to distribute the link among their employees with consideration to hand out a total of 173 questionnaire to workers that do not have access to online resources. Of the 932 employees, 502 employees submitted back the questionnaire; where 2 questionnaires of the total number received back were considered incomplete responses and thus were excluded from the analysis phase. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for the analysis and reporting; a rate of 60% is reasonable, and a response rate of 70% and over is excellent. The current study's response rate was 54%, which is satisfactory and adequate to make conclusions of the study as it acted as a representative. Therefore, 500 responses were administered for analysis, making a response rate of 54 %. The questionnaire was administered in Arabic as many employees might face difficulty filling a questionnaire in English, which could affect the quality of their responses.

3.4 Research Design

The questionnaire is the research instrument used in this study, and it is partially adopted from both the Hayman (2005) scale and the short version of the MSQ. The first section looks for demographic data that is crucial for the study and consists of 12 items: Gender, age, education, marital status, residents under one roof, number of years working with current employer, rank at current job, employment status, monthly income.

The second section assesses the WLB of the employees, which was based on the three constructs of Hayman (2005). This scale was originally adapted from an instrument developed by Fisher-McAuley et al., (2003). This scale was originally designed to capture employee perception on WLB; The original scale consists of 19 items and three dimensions of work-life balance. They simplified the WLB concept by placing three dimensions. The three dimensions are: Work Interference with Personal Life (WIPL), Personal Life Interference with Work (PLIW), and Work/Personal Life Enhancement (WPLE). These three dimensions represent two theories that are usually used to explain the link between family and work. The first approach is the conflict approach and the second is the enrichment approach. These two theories are opposite to each other in terms of concept and content. The conflict approach assumes that combining work and family roles is demanding and therefore leads to conflict (Edwards & Rothbard, 2000). Whereas the enrichment approach emphasizes that life can enrich work outcomes and vise-versa (Greenhaus & Powell, 2006). This scale has been used by other researchers (e.g.

Hayman, 2005). A short description of the three constructs of WLB as presented by Hayman (2005) is exhibited below:

Work Interference with Personal Life (WIPL)

This construct includes work related factors that impact an individual's personal life. It measures the impact of work on personal life. This construct measures 7 items which are:

- 1- My personal life suffers because of work
- 2- My job makes my personal life difficult
- 3- I neglect personal needs because of work
- 4- I put personal life on hold for work
- 5- I miss personal activities because of work
- 6- I struggle to juggle work and non-work
- 7- I am unhappy with the amount of time for non-work activities

Personal Life with Work Interference (PLIW)

This construct has been explained as the impact of personal life on work. It measures the impact of personal life on one's work. This construct measures 4 items which are:

- 1- My personal life drains me of energy for work
- 2- I am too tired to be effective at work
- 3- My work suffers because of my personal life
- 4- It is hard to work because of personal matters

Work Personal Life Enhancement (WPLE)

This construct explains how work and personal life enhance each other, it helps to understand how work supports and enhances personal life and how personal life supports and enhances work. This construct consists of 4 items, which are:

- 1- My personal life gives me energy for my job
- 2- My job gives me energy to pursue personal activities
- 3- I have a better mood at work because of personal life
- 4- I have a better mood because of my job

The third section in the questionnaire measures the employee job satisfaction. Some of the most popular measures in the field that adopted this perspective was the Minnesota Satisfaction Questionnaire (Weiss et al., 1967). The MSQ have two versions: long and short. The long version consists of 100 questions that assess 20 subscales. The subscales are: Ability Utilization, Achievement, Activity, Advancement, Authority, Company Policies, Compensation, Co-workers, Creativity, Independence, Moral Values, Recognition, Responsibility, Security, Social Status, Social Service, Supervision--Human Relations, Supervision—Technical, Variety, Working Conditions.

The long version was then modified to a shorter version of the MSQ that consists of 20 items only. However, this paper adapted only 14 items of MSQ as the Palestinian context matches most of the 14 items selected.

The fourth section consisted of 8 items and was developed by the researcher. This section answers the fourth research question, which is to measure the relationship between WLB and J.S.

The fifth section and consists of 14 items, and looks for other data needed, concerning the WLB programs that employees are willing to have. This was necessary to provide the human resource departments of the companies under study with data needed to improve their strategic planning concerning the WLB and job satisfaction of their employees. Responses are made on a 5-point Likert scale, and the response categories are assigned weights from 1 to 5.

4. Research Findings and Discussion

Data analysis involves several closely related operations that are performed to summarize the collected data and organize them in such a manner that they answer the research questions (Sekaran, 2005).

4.1 Validity and Reliability Analysis

Content validity was measured based on reviewing and approving of the questionnaire content by three experts in the field of HRM; working as researchers and educators at Birzeit University in Palestine.

Cronbach's alpha was used as a measure of scale reliability, in other words, to measure internal consistency between each related set of items. Its values for all sections of the questionnaire are ranged between 0.77 and 0.90 per section, which are suitable for excellent reliability values. The main two sets of items (WLB & JS) covered by the analysis are consistent with it and stand within the same range, as shown in table 1: 0.77, 0.78, 0.81, and 0.90. Moreover, the overall value of this factor (the instrument as a whole) was 0.87, indicating a high degree of stability for the instrument used in this research.

The correlation for all items of the questionnaire is strong enough and significant with the tool. The only exception is for the 6th statement in the WLB part in the instrument, which is "I struggle to juggle work and non-work" this indicates the strength of the internal consistency between the parts of the tool (the questionnaire) in measuring the balance between work and life responsibilities with job satisfaction.

Table 3. Validity and reliability analysis

<i>Variable</i>	<i>Cronbach alpha</i>
<i>Work-Life Balance (WLB)</i>	0.81
<i>Work interference with personal life (WIPL)</i>	0.78
<i>Personal Life interference with (PLIW)</i>	0.77
<i>Work Personal Life Enrichment</i>	0.81
<i>Job Satisfaction (J.S.)</i>	0.90

4.2 Descriptive Statistics: Demographic data

The total number of the participants was 502, of which about 81% were males, and 19% were females. 25% of the participants are age between 18-24 years, 51% age between 25-34 years, while 17% age between 35-44 years. The age group between 45-54 years old composed 6%, whereas a marginal percentage (less than 1%) was 55 years and above.

In terms of the educational level, 72% of the total number of participants carry undergraduate certificates, 7% hold a master's degree, while 21% hold a secondary school certificate.

About work experience, a third of the participants (32%) are well experienced with eight years and more, while those who have less than two years of work experience compose 47% and 21% with 3-7 years. Further, 28% of participants work in supervisory positions, 62% as professional jobholders, and 10% work in support services positions. Moreover, 47% of the surveyed persons are married, 52% are single, while 1% in other marital status positions. In terms of their employment type, 94% of them have full-time job contracts while the rest are part-time employees.

Concerning the salary range, almost half of the participants (47%) earn 3,000ILS (about 850US\$), 36% earn between 3001-6000ILS (851-1700US\$), 10% earn 6001-9000ILS (1701-2250 US\$), and the remaining earn more than 9000ILS (2250 US\$).

The family structure for the sampled employees ranged between 2-7 persons per family; almost half of the participants family structure (47%) range between 2-4 persons and 44% range between 5-7 persons, while 5% of the families are with eight persons and more and only 3% are single-person families.

Table 4. Demographic Data: Participant's Profile

<i>Demographic Variable</i>	<i>Categories</i>	<i>Frequencies</i>	<i>Percentage</i>
<i>Gender</i>	<i>Males</i>	408	81.3%
	<i>Females</i>	94	18.7%
<i>Age</i>	<i>18-24 years</i>	126	25.1%
	<i>25-34 years</i>	258	51.4%
	<i>35-44 years</i>	86	17.1%
	<i>45-55 years</i>	28	5.6%
	<i>55 years and</i>	4	0.8%
<i>Education</i>	<i>High School Diploma</i>	104	20.9%
	<i>Diploma</i>	43	8.6%
	<i>Bachelor</i>	314	63.1%
	<i>Master and above</i>	37	7.4%
<i>Experience</i>	<i>Less than one year</i>	92	18.3%
	<i>1-2 years</i>	145	28.9%
	<i>3-7 years</i>	103	20.5%
	<i>8-10</i>	78	15.5%
	<i>11 years and above</i>	84	16.7%
<i>Job Title</i>	<i>Manager</i>	50	10.0%
	<i>Supervisor</i>	89	17.8%
	<i>Officer</i>	309	61.7%
	<i>Worker</i>	53	10.6%
<i>Marital status</i>	<i>Not married</i>	234	46.9%
	<i>Married</i>	259	51.9%
	<i>Other</i>	6	1.2%
<i>Current position</i>	<i>Full job</i>	469	94.2%
	<i>Part-time job</i>	26	5.2%
	<i>Other</i>	3	0.6%
<i>Number of persons per family</i>	<i>One person</i>	15	3.0%
	<i>2-4 persons</i>	237	47.4%
	<i>5-7 persons</i>	222	44.4%
	<i>Eight persons and above</i>	26	5.2%
<i>Monthly income</i>	<i>Less than 3000 NIS</i>	236	47.2%
	<i>3001-6000 NIS</i>	178	35.6%
	<i>6001-9000 NIS</i>	48	9.6%
	<i>9001-12000 NIS</i>	18	3.6%
	<i>12001-20000 NIS</i>	15	3.0%
	<i>20001 and more</i>	1	1.0%

4.3 Main Results

The means of the items that compose the work-life balance scored differ from the values that reflect differences in its contribution to have the balance of the work-life; the highest mean was about 80 for two items ("My work suffers because of personal matters" and "It is hard to work because of personal matters") with a relative standard deviation of 19-20. On the other hand, the lowest was represented in three statements ("I put personal life on hold for work" and "I miss personal activities because of work" and "My job gives me the energy to pursue personal activities") which scored 48 with a higher standard deviation of about 29-30 for each of the three items. Whereas concerning the Job Satisfaction, the highest score of the item means was almost 79, followed by 72 ("Being able to do things that do not go against my conscience" and "The chance to be "somebody" in the community") at a standard deviation of about 26.5 each. On the lowest score, it was 42 and 40 accordingly ("The chances for advancement on this job" and "My pay and the amount of work I do") with a standard deviation of about 31. This gives a clear idea of how these items contributed to achieving job satisfaction. Table 4 goes about here.

Table 5. Descriptive statistics

<i>Variable</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>QII_1</i>	498	0	100	55.07	31.209
<i>QII_2</i>	499	0	100	55.26	30.493
<i>QII_3</i>	502	0	100	49.80	30.628
<i>QII_4</i>	502	0	100	48.11	29.827
<i>QII_5</i>	495	0	100	47.53	29.932
<i>QII_6</i>	495	0	100	67.37	29.609
<i>QII_7</i>	497	0	100	50.65	29.286
<i>QII_8</i>	497	0	100	70.12	26.989
<i>QII_9</i>	498	0	100	72.34	25.309
<i>QII_10</i>	499	0	100	80.26	19.498
<i>QII_11</i>	499	0	100	79.86	20.661
<i>QII_12</i>	497	0	100	62.83	27.270
<i>QII_13</i>	496	0	100	48.64	29.292
<i>QII_14</i>	499	0	100	58.57	27.404
<i>QII_15</i>	497	0	100	54.98	29.386
<i>QIII_1</i>	499	0	100	64.13	26.240
<i>QIII_2</i>	499	0	100	71.84	26.488
<i>QIII_3</i>	494	0	100	70.24	27.902
<i>QIII_4</i>	496	0	100	78.83	26.552
<i>QIII_5</i>	493	0	100	67.55	25.780
<i>QIII_6</i>	492	0	100	63.31	29.517
<i>QIII_7</i>	497	0	100	40.14	31.244
<i>QIII_8</i>	497	0	100	42.20	31.444
<i>QIII_9</i>	496	0	100	58.67	28.390
<i>QIII_10</i>	496	0	100	63.71	27.174
<i>QIII_11</i>	498	0	100	61.35	29.144
<i>QIII_12</i>	500	0	100	67.90	27.994
<i>QIII_13</i>	500	0	100	57.85	30.273
<i>QIII_14</i>	499	0	100	62.93	28.794

4.5 The Impact of Work Life Balance on Job Satisfaction

Multiple regression model was applied to find out the association between the three components of work-life balance (as independent variables); which are work interference with personal life (WIPL), personal life interference with work (PLIW), and work personal life enrichment (WPLE) with job satisfaction (as dependent variable).

The results of the standard multiple regression indicated that the overall model was a statistically significant predictor of Job satisfaction, $F(3,496) = 66.158$, $p = .000$.

Around 31% of the variances in the data (Job satisfaction) can be explained by the three predictor variables of work-life balance (WLB); which are work interference with personal life (WIPL), personal life interference with (PLIW), and work personal life enrichment (WPLE).

The three predictor variables of work-life balance (WLB), work interference with personal life (WIPL), personal life interference with work (PLIW), and work personal life enrichment (WPLE) significantly contributed to the model (P-value = .000, .033, .000 respectively).

Personal life interference with work (PLIW) ($B1 = 0.371$): as employees' attitude towards work interference with personal life gets more positive (less interference), their attitude towards Job satisfaction increases by 0.371 units.

Work interference with personal life (WIPL) ($B2 = 0.099$): as employees' attitude towards personal life interference with work gets more positive (less interference), their attitude towards Job satisfaction increases by 0.099 units.

Work personal life enrichment ($B3 = 0.193$): as employees' attitudes towards work personal life enrichment get more positive, their attitude towards Job satisfaction increases by 0.193 units.

Based on these results, it is significant that both main variables strongly correlated as it is 0.0 at level ($0.05 \leq \alpha$), which means less than 0.5, so the hypothesis rejected (main research questions).

Table 6. Multiple regression model (Dependent: Job Satisfaction)

<i>Model I</i>	<i>Unstandardized Coefficients</i>		<i>T-statistics</i>	<i>P-value</i>	<i>Null Hypothesis</i>
	β	<i>St. Error</i>			
<i>Constant</i>	24.680	3.626	6.806	0.000	<i>Reject</i>
<i>Group_QIIA</i>	0.371	0.041	9.029	0.000	<i>Reject</i>
<i>Group_QIIB</i>	0.099	0.046	2.144	0.033	<i>Reject</i>
<i>Group_QIIC</i>	0.193	0.035	5.530	0.000	<i>Reject</i>
<i>R Square</i>	0.307	<i>F- Statistic</i>	66.158	<i>Sig</i>	.000 ^b

4.6 Struggling in Reconciling Work with Life Commitments

Wilcoxon signed ranks test had been done to check whether the employees are struggling to juggle work and other life responsibilities and commitments, which indicated that their attitudes were significantly toward approving and strongly approving this struggle (the median > 50), $z = 78,858.5$, $P_value = .000$. Thus, it can be concluded that the employees are struggling with reconciling work and life commitments.

Table 7. Wilcoxon Test

	Median	N (%) (agree & strongly agree)	A one-sample Wilcoxon signed ranks test.	
			z statistic	P_value
Struggling in reconciling work and life commitments	75	339 (67.4)	78,858.5	.000

4.7 WLB Programs that could Improve Status of Work-Life Balance

As one of the research's objectives is to develop some recommendations in terms of the most desirable work-life balance programs by the selected sample at the companies under study, further data was analyzed, and it revealed four main types of programs as indicated by the employees from their point of view. The first one is related to health insurance and complementary health program, including fitness and health guidance and entertainment that aims to reduce the workload; this cluster scored about 91%. The second important program is related to children's care, such as medical care programs, and this cluster scored about 80%. The third one is the flexibility in working hours with a score of about 75%. In comparison, the fourth level refers to providing affordable meals for the employees, reflected by 75% of the employees. Table 7 exhibits all proposed work-life balance programs with related percentages ranked from most to least important as been filled by the sample under study.

Table 8. WLB Programs that could improve status of work-life balance

Work-Life Balance Programs Importance to Sampled Employees	%
Health insurance for dependent parents	90.7%
Comprehensive wellness programs (gym membership, nutrition seminars, recreational trips to relieve work stress, Etc.)	90.9%
Sick childcare program (counting absence from work for sick childcare as part of the employee's sick leave)	80.3%
Variable starting/ending hours	75.5%
Paternity leave (no less that one week)	75.0%
Providing take away healthy meals at affordable prices	74.6%
Reduced workweek schedule	67.6%
Compressed work schedule	57.9%
Extended maternity leave (with position guarantee)	56.9%
Home/mobile Working	50.5%
Support for Family Counseling services	45.1%
Job Sharing	40.8%
Onsite childcare center	38.0%

5. Study Limitations

One major limitation was that some of the respondents did not have access to emails. Those respondents were mostly from the worker's level, thus were given hard copies to fill. Another limitation was the language as the

questionnaire was translated from English into Arabic as most respondents feel more at ease when reading Arabic.

6. Conclusion

It is evident from the study results that the average effect of work matters on personal life and the effect of life on work matters is strongly confirmed, which indicates clarity on the impact of work matters during the course of life. Moreover, there is a clear view on the impact of employee life matters on their jobs, which confirms the fact that the employees cannot completely separate work from their personal life, and that both personal matters and work are normally overlapped. The revealed relationship between work-life balance and job satisfaction indicates the research's consistency that was designed based on previous experiences, as indicated in the literature review.

Lastly and after an intensive literature review concerning the many definitions of the term work-life balance across the last 30 years, the researcher would come up with own contribution to the term WLB, and state it as 'reaching a state of equilibrium where each worker personally decides on the extended boundaries of interference crossing between life demands and work responsibilities.

7. Recommendations

This study shall aid the companies involved with managerial tools that would assist their Human Resource Departments (HRD) to enhance its employees' mental life and working conditions in order achieve higher employees' performance levels. Referring to the research findings, the following recommendations made by the research writer:

- It takes in different adaptations by organizations to assist employees to have better life conditions and thus become more productive at the workplace; with matching and appropriate WLB policies and programs in place, the companies under study shall expect higher employee satisfaction.
- Management's support at the different companies to the concept of WLB is crucial to achieve higher level of JS. It is even more apparent for top managements and precisely executive people and leaders to set the standards for WLB practices and apply them across the different managerial levels at their companies.
- Considering a breakdown of the overall JS results across the different 7 companies under study shall give each and every company the chance to dig deeper into the results and focus on designing matching WLB practices that would enhance the quality of their lives and the time split between work and family commitments, thus ending into satisfying their needs and achieving higher JS rates.
- Sponsoring health insurance programs for dependent parents along with offering wellness programs are obvious good opportunities to help employees strike a new standard in balancing work and life matters.
- Companies' managements need to commit to the concept of WLB and start adapting its most common practices by having them announced in their HR handbooks and implementing these practices among their employees.
- Train the HR departments on the different newly adapted WLB applications and practices. In addition, setting up coaching sessions shall assist and support better communications and understanding of their employees needs and challenges.

8. Future Research

Further work is recommended to extend this research by doing additional in-depth analysis to uncover more details of these interrelationships up to the formulation of a unique model that leads to creating a state of job satisfaction based on the balance between personal life and work responsibilities, as well the possibility of adapting it in different circles in the field of business, especially on other important Palestinian sectors like the public sector. Moreover, another research might be interesting is to study the current research aspects from a deeper gender perspective.

References

- Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: a review and agenda for future research. *Journal of occupational health psychology, 5*(2), 278. <https://doi.org/10.1037/1076-8998.5.2.278>
- Anderson, S. E., Coffey, B. S., & Byerly, R. T. (2002). Formal organizational initiatives and informal workplace practices: Links to work-family conflict and job-related outcomes. *Journal of management, 28*(6), 787-810.
- Baral, R. (2010). *Work-family enrichment: Benefits of combining work and family*.

- Beauregard, T. A., & Henry, L. C. (2009). Making the link between work-life balance practices and organizational performance. *Human resource management review*, 19(1), 9-22. <https://doi.org/10.1016/j.hrmr.2008.09.001>
- Behson, S. J. (2002). Coping with family-to-work conflict: The role of informal work accommodations to family. *Journal of occupational health psychology*, 7(4), 324. <https://doi.org/10.1037/1076-8998.7.4.324>
- Berg, P., Kalleberg, A. L., & Appelbaum, E. (2003). Balancing work and family: The role of high-commitment environments. *Industrial Relations: A Journal of Economy and Society*, 42(2), 168-188. <https://doi.org/10.1111/1468-232X.00286>
- Berry, E. (2010). Achieving work-life balance: More than just a juggling act. *American Medical News*.
- Bond, J. T., Galinsky, E., Kim, S. S., & Brownfield, E. (2005). National study of employers. *New York: Families and Work Institute*, 6.
- Bosworth, D., & Hogarth, T. (2009). *Future horizons for work-life balance*. Institute for Employment Research, University of Warwick.
- Brough, P., Timms, C., O'Driscoll, M. P., Kalliath, T., Siu, O. L., Sit, C., & Lo, D. (2014). Work-life balance: A longitudinal evaluation of a new measure across Australia and New Zealand workers. *The International Journal of Human Resource Management*, 25(19), 2724-2744. <https://doi.org/10.1080/09585192.2014.899262>
- Carlson, D. S., Grzywacz, J. G., & Zivnuska, S. (2009). Is work—family balance more than conflict and enrichment? *Human relations*, 62(10), 1459-1486. <https://doi.org/10.1177/0018726709336500>
- Chandra, V. (2012). Work-life balance: eastern and western perspectives. *The International Journal of Human Resource Management*, 23(5), 1040-1056. <https://doi.org/10.1080/09585192.2012.651339>
- Chernyak-Hai, L., & Tziner, A. (2016). The “I believe” and the “I invest” of Work-Family Balance: The indirect influences of personal values and work engagement via perceived organizational climate and workplace burnout. *Revista de Psicología del Trabajo y de las Organizaciones*, 32(1), 1-10. <https://doi.org/10.1016/j.rpto.2015.11.004>
- Cuthbertson, K., & Nitzsche, D. (2005). *Quantitative financial economics: stocks, bonds and foreign exchange*. John Wiley & Sons.
- Daft, T. S., & Marcic, D. W. (2001). Job satisfaction and the good soldier: The relationship between affect and employee “citizenship”. *Academy of management Journal*, 26(4), 587-595. <https://doi.org/10.2307/255908>
- Darcy, C., McCarthy, A., Hill, J., & Grady, G. (2012). Work-life balance: One size fits all? An exploratory analysis of the differential effects of career stage. *European Management Journal*, 30(2), 111-120. <https://doi.org/10.1016/j.emj.2011.11.001>
- Dockel, A. 2003. *The Effect of Retention Factors on Organizational Commitment: An Investigation of High Technology Employees*. Master of Human Resource Thesis. University of Pretoria.
- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of management review*, 25(1), 178-199. <https://doi.org/10.5465/amr.2000.2791609>
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied psychology*, 71(3), 500-507. <https://doi.org/10.1037/0021-9010.71.3.500>
- Estes, S. B., & Michael, J. (2005). *Work-family policies and gender inequality at work: A Sloan Work and Family Encyclopedia entry*.
- Families, W. (2009). *New ways to work and the Working Mother's association in the United Kingdom*.
- Felstead, A., Jewson, N., Phizacklea, A., & Walters, S. (2002). Opportunities to work at home in the context of work-life balance. *Human resource management journal*, 12(1), 54-76. <https://doi.org/10.1111/j.1748-8583.2002.tb00057.x>
- Fisher-McAuley, G., Stanton, J., Jolton, J., & Gavin, J. (2003, April). Modelling the relationship between work life balance and organisational outcomes. In *Annual Conference of the Society for Industrial-Organisational Psychology*. Orlando (pp. 1-26). <https://doi.org/10.1037/e518712013-236>
- Fransman, E. I. (2014). *Determining the impact of flexible work hours on women employed in a higher education institution* (Doctoral dissertation).

- Frone, M. R. (2000). Work–family conflict and employee psychiatric disorders: The national comorbidity survey. *Journal of Applied psychology*, 85(6), 888. <https://doi.org/10.1037/0021-9010.85.6.888>
- Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: testing a model of the work-family interface. *Journal of applied psychology*, 77(1), 65. <https://doi.org/10.1037/0021-9010.77.1.65>
- Furnham, A. (1997). *The Psychology of Behavior at Work*. Hove: Psychology Press.
- Glynn, C., Steinberg, I., & McCartney, C. (2002). *Work-life balance: The role of the manager* (pp. 1-96). Horsham: Roffey Park Institute.
- Greenhaus, J. H. (2002). Work–family conflict. *Journal of The Academy of Management Review*, 45, 1-9.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of management review*, 31(1), 72-92. <https://doi.org/10.5465/amr.2006.19379625>
- Grover, S. L., & Crooker, K. J. (1995). Who appreciates family-responsive human resource policies: The impact of family-friendly policies on the organizational attachment of parents and non-parents. *Personnel psychology*, 48(2), 271-288. <https://doi.org/10.1111/j.1744-6570.1995.tb01757.x>
- Grzywacz, J. G. (2000). Work-family spillover and health during midlife: is managing conflict everything? *American Journal of Health Promotion*, 14(4), 236-243. <https://doi.org/10.4278/0890-1171-14.4.236>
- Grzywacz, J. G., & Carlson, D. S. (2007). Conceptualizing work—family balance: Implications for practice and research. *Advances in developing human resources*, 9(4), 455-471. <https://doi.org/10.1177/1523422307305487>
- Haar, J. M. (2013). Testing a new measure of work–life balance: A study of parent and non-parent employees from New Zealand. *The International Journal of Human Resource Management*, 24(17), 3305-3324. <https://doi.org/10.1080/09585192.2013.775175>
- Haar, J. M., Russo, M., Suñe, A., & Ollier-Malaterre, A. (2014). Outcomes of work–life balance on job satisfaction, life satisfaction and mental health: A study across seven cultures. *Journal of Vocational Behavior*, 85(3), 361-373. <https://doi.org/10.1016/j.jvb.2014.08.010>
- Hackman, L. W., & Oldhman, P. V. 2001. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of applied psychology*, 59(5), 603. <https://doi.org/10.1037/h0037335>
- Hännig, O., & Bauer, G. (2009). Work-life imbalance and mental health among male and female employees in Switzerland. *International journal of public health*, 54(2), 88-95. <https://doi.org/10.1007/s00038-009-8031-7>
- Hayman, J. (2005). Psychometric assessment of an instrument designed to measure work life balance. *Research and practice in human resource management*, 13(1), 85-91.
- Hill, E. J., Hawkins, A. J., Ferris, M., & Weitzman, M. (2001). Finding an extra day, a week: The positive influence of perceived job flexibility on work and family life balance. *Family Relations*, 50(1), 49-65. <https://doi.org/10.1111/j.1741-3729.2001.00049.x>
- Holliday, M., & Manfredi, S. (2004). Work-life balance: an audit of staff experience at Oxford Brookes University. *The centre of diversity policy research: Oxford Brookes University*.
- Hughes, D. L., & Galinsky, E. (1994). Gender, job and family conditions, and psychological symptoms. *Psychology of Women Quarterly*, 18(2), 251-270. <https://doi.org/10.1111/j.14716402.1994.tb00454.x>
- Hughes, J., & Bozionelos, N. (2007). Work-life balance as source of job dissatisfaction and withdrawal attitudes. *Personnel Review*, 36(1), 145-154. <https://doi.org/10.1108/00483480710716768>
- Jain, S., & K. Nair, S. (2013). Research on work-family balance: A review. *Business Perspectives and Research*, 2(1), 43-58. <https://doi.org/10.1177/2278533720130104>
- Kim, H., Lee, J. K., & Sung, S. (2013). The effects of family-friendly practices and gender discrimination on job attitudes: The moderating role of supervisor support. *The International Journal of Human Resource Management*, 24(20), 3921-3938. <https://doi.org/10.1080/09585192.2013.789442>
- Kinnie, N., Hutchinson, S., Purcell, J., Rayton, B., & Swart, J. (2005). Satisfaction with HR practices and commitment to the organisation: why one size does not fit all. *Human Resource Management Journal*, 15(4), 9-29. <https://doi.org/10.1111/j.1748-8583.2005.tb00293.x>

- Kinnunen, U., & Mauno, S. (1998). Antecedents and outcomes of work-family conflict among employed women and men in Finland. *Human Relations*, 51(2), 157-177. <https://doi.org/10.1023/A:1016962202639>
- Kornhauser, S. E. (2005). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors, *Journal of management*, 17(3), 601-617. <https://doi.org/10.1177/014920639101700305>
- Kossek, E. E., & Lobel, A. (1996). *Managing diversity*. Blackwell Publishers
- Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research. *Journal of Applied Psychology*, 83(2), 139-149. <https://doi.org/10.1037/0021-9010.83.2.139>
- Kuzulu, E., Kurtuldu, S., & Özzkan, G. V. (2013). Is „Yas m Dengesi ile Yas m Doyumu _ Ilis kisi U zerine Bir Aras,turma. [A research on the relationship between work-life balance and life satisfaction]. *The Sakarya Journal of Economics*, 2(1), 88-127.
- Lewis, S. (2000). Restructuring workplace cultures: the ultimate work-family challenge? *Women in Management Review*, 16(1), 21-29. <https://doi.org/10.1108/09649420110380256>
- Lockwood, N. R. (2003). Work/Life Balance: Challenges and Solutions, Society for Human Resource Management. *Research Quarterly*, 2, 1-10.
- Maxwell, G. A., & McDougall, M. (2004). Work-life balance: Exploring the connections between levels of influence in the UK public sector. *Public Management Review*, 6(3), 377-393. <https://doi.org/10.1080/1471903042000256547>
- McNall, L. A., Masuda, A. D., & Nicklin, J. M. (2009). Flexible work arrangements, job satisfaction, and turnover intentions: The mediating role of work-to-family enrichment. *The Journal of psychology*, 144(1), 61-81. <https://doi.org/10.1080/00223980903356073>
- Mugenda, O. M., & Mugenda, A. G. (1999). *Research Methods: Quantitative and Qualitative Approaches*. Acts Press.
- Munn, S. L. (2013). Unveiling the work-life system: the influence of work-life balance on meaningful work. *Advances in Developing Human Resources*, 15(4), 401-417. <https://doi.org/10.1177/1523422313498567>
- Myers, C. S. (1924). *Industrial Psychology in Great Britain*. London: Cape. [AQ10.28] New Consultant Headquarters 2011. 7 tips to create work-life balance when you work from home.
- Nadeem, M. S., & Abbas, Q. (2009). The impact of work life conflict on job satisfactions of employees in Pakistan. *International Journal of Business and Management*, 4(5), 63-83. <https://doi.org/10.5539/ijbm.v4n5p63>
- Omran, S., & Kamel. A. (2016). Work-family balance dilemma among employed parents (An empirical study). *International Journal of Business and Economic Development (IJBED)*, 4(1), 31-46.
- Paoli, P., & Merllié D. (2000). *European Foundation for the Improvement of Living and Working Conditions—Third European survey on working conditions*.
- Parakati, V. (2010). *The history of work-life balance: it's not as new as you might think*. Examiner. com.
- Pattusamy, M., & Jacob, J. (2016). Testing the mediation of work-family balance in the relationship between work-family conflict and job and family satisfaction. *South African Journal of Psychology*, 46(2), 218-231. <https://doi.org/10.1177/0081246315608527>
- Pattusamy, M., & Jacob, J. (2017). A test of Greenhaus and Allen (2011) model on work-family balance. *Current Psychology*, 36(2), 193-202. <https://doi.org/10.1007/s12144-015-9400-4>
- Peeters, M. C., Montgomery, A. J., Bakker, A. B., & Schaufeli, W. B. (2005). Balancing work and home: How job and home demands are related to burnout. *International Journal of Stress Management*, 12(1), 43-61. <https://doi.org/10.1037/1072-5245.12.1.43>
- Pillinger, J. (2001). *Work-Life Balance: Towards a new politics of work and time'*. Paper given at the Industrial Law Society Annual Conference, 16th September 2001.
- Robbins, S. P. (2004). *Organizational Behavior* (10th ed.). New Delhi: Prentice Hall of India, Pvt. Ltd.
- Ruikar, S. K., & Abhyankar, S. C. (2015). Perceived Social Support As A Predictor Of Work-Life

- Enrichment. *Annamalai International Journal of Business Studies & Research*.
- Sekaran, D. (2005). *A general guide to writing research proposal and report: A handbook for beginning research*. Kisumu: Options Printers and Publishers.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *Measurement of satisfaction in work and retirement*. Chicago, IL: Rand McNally.
- Spagnoli, P., Caetano, A., & Santos, S. C. (2012). Satisfaction with job aspects: Do patterns change over time? *Journal of business research*, 65(5), 609-616. <https://doi.org/10.1016/j.jbusres.2011.02.048>
- Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *American journal of community psychology*, 13(6), 693-713. <https://doi.org/10.1007/BF00929796>
- Stone, W. H. (2005). Intermediate linkages in the relationship between job satisfaction and employee turnover, *Journal of applied psychology*, 62(2), 237. <https://doi.org/10.1037/0021-9010.62.2.237>
- Susi, S. J. (2010). Work-Life Balance: The key driver of employee engagement. *Asian journal of management research*, 1, 1-10.
- Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of applied psychology*, 80(1), 6. <https://doi.org/10.1037/0021-9010.80.1.6>
- U.S. Department of Labor 2013. Fair Labor Standards Act of 1938. Retrieved from www.dol.gov/oasam/programs/history/flsa1938.htm
- Varatharaj, V., & Vasantha, S. (2012). Work Life Balances A Source of Job Satisfaction - An Exploratory Study on The View of Women Employees in The Service Sector. *International Journal of Multidisciplinary Sciences and Engineering*, 5(6).
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: how good are single-item measures? *Journal of applied Psychology*, 82(2), 247. <https://doi.org/10.1037/0021-9010.82.2.247>
- Weiss, D. J., Dawis, R. V., & England, G. W. (1967). Manual for the Minnesota satisfaction questionnaire. *Minnesota studies in vocational rehabilitation*. <https://doi.org/10.1037/t05540-000>
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human resource management review*, 12(2), 173-194. [https://doi.org/10.1016/S1053-4822\(02\)00045-1](https://doi.org/10.1016/S1053-4822(02)00045-1)
- Yadav, R. K., & Dabhade, N. (2014). Work life balance and job satisfaction among the working women of banking and education sector-A comparative study. *International Letters of Social and Humanistic Sciences*, 21, 181-201. <https://doi.org/10.18052/www.scipress.com/ILSHS.21.181>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

The Impact of Celebrity Endorsement on Brand Loyalty: Mediating and Moderating Mechanisms

Regina Burnasheva¹, Yong Gu Suh²

¹ PhD Candidate, Sookmyung Women's University, Cheongpa-ro 47-gil 100, Seoul, Korea

² Professor of Marketing, Sookmyung Women's University, Cheongpa-ro 47-gil 100, Seoul, Korea

Correspondence: Regina Burnasheva, PhD Candidate, Sookmyung Women's University, Cheongpa-ro 47-gil 100, Seoul, Korea.

Received: December 16, 2020

Accepted: January 4, 2021

Online Published: January 8, 2021

doi:10.5539/ibr.v14n2p29

URL: <https://doi.org/10.5539/ibr.v14n2p29>

Abstract

Applying the meaning transfer theory, the purpose of this study is to proffer a theoretical framework in which celebrity endorser's credibility (CEC) effects the brand loyalty through the mediating role of brand relationship quality and the moderating role of the celebrity-brand congruence. Data was gathered through an online survey from young Korean millennials and tested using structural equation modeling and multi-group techniques. The findings revealed that brand relationship quality serves as a partial mediator of the effect of CEC on brand loyalty. The findings also suggested that celebrity-brand congruence acts as a moderator between CEC and the brand relationship quality. This study offers useful practical implications for luxury marketers and advertisers.

Keywords: celebrity endorsement, brand relationship quality, celebrity-brand congruence, brand loyalty, Korean millennials.

1. Introduction

Celebrity endorsements play a significant role in marketing and advertising as a popular tool for promoting brands. Celebrity endorsers are personalities enjoying the public recognition and they take advantage of this recognition in representing consumer good through advertisement (McCracken, 1989, p. 310). They possess aspirational, symbolic associations (Escalas, 2004) and differential characteristics such as attractiveness, expertise and trustworthiness (Ohanian, 1990), which play an essential role in forming credibility. Celebrity endorser's credibility (CEC) has received substantial attention in prior research and was linked to a series of outcomes such as brand equity (Spry et al., 2011; Dwivedi et al., 2015), brand evaluation (Dwivedi et al., 2014; Stafford et al., 2002), brand attitude (Wang et al., 2017), and relationship quality (Dwivedi et al., 2016). Although past studies have offered essential contributions, relatively little is known about the mediating (brand relationship quality) and moderating (celebrity-brand congruence) mechanisms in this relation between CEC and brand loyalty.

To address these issues, by applying the meaning transfer theory, the purpose of this study is to proffer a theoretical framework in which CEC effects the brand loyalty through the mediating role of brand relationship quality and the moderating role of the celebrity-brand congruence. More specifically, this study explores the followings: (i) brand relationship quality mediating effect to the association between CEC and brand loyalty; and (ii) the moderating role of celebrity-brand congruence in the association between CEC and brand relationship quality construct.

The rest of this study is structured as follows wherein the next part, literature related to key constructs, including brand relationship quality and celebrity-brand congruence are described and hypotheses are formulated. Next, the data collection methods and data analysis are discussed. Research concludes with contributions, shortcomings, and future research directions.

2. Literature Review and Hypotheses Development

2.1 The Mediating Role of Brand Relationship Quality

Veloutsou (2007) and Fournier (1998) stated that a brand relationship or consumer-brand relationship is the interaction that customers feel, think and have with a brand. It builds on a metaphor that states customers form

relationships with brands in a similar way to human relations (McAlexander et al., 2002; Fournier, 1998). Specifically, according to the study of Aaker (1996), when customers develop a relationship with brands, they can build an active connection with those brands similar with those individuals when having a bond with their friends.

Many researchers consider consumer-brand relationships through two theoretical perspectives, namely brand love approach (Albert and Merunka, 2013; Carroll and Ahuvia, 2006) and brand commitment approach (Chaudhuri and Holbrook, 2001; Giovanis and Athanasopoulou, 2017). Fournier (1998) and Valta (2013) view consumer brand relationships through the approach of brand relationship quality. Fournier (1994) described this as “customer-based indicator of the strength and depth of a person-brand relationship” (p. 124) and conceptualized this as a multifaceted paradigm consisting of seven dimensions. This paper applied the brand relationship quality approach where it considered as a multidimensional construct comprising three dimensions.

Given the significance of consumer-brand relationships in celebrity endorsements process (Dwivedi et al., 2015; Dwivedi and Johnson, 2013), it is necessary to investigate the impact of CEC on brand relationship quality. Previous studies have conceptualized the construct of brand relationship quality as trust, commitment, social benefits (Dwivedi et al., 2015); brand trust, brand attachment and brand commitment (Ramaseshan and Stein, 2014); the relationship commitment, relationship satisfaction and trust (Valta, 2013); the brand trust and brand satisfaction (Crosby et al., 1990; Hess and Story, 2005); brand attachment, brand satisfaction and brand trust (Esch et al., 2006). In the present study, brand relationship quality refers as distinguished by individuals as their trust to and satisfaction with a brand, along with attachment. Trust is a factor defined as the customer perception of credibility and benevolence (Doney and Cannon, 1997). Brand attachment refers to the emotional tie connecting the customer with a brand (Park et al., 2010), while brand satisfaction refers to “consumer’s pleasurable fulfilment” response (Oliver, 1999, p. 34). In this study, the relationship-based construct (brand trust, brand attachment and brand satisfaction) might advance understanding for brand relationship quality of celebrity endorsement literature.

Through the usage of meaning transfer theory, the influence of CEC on brand relationship quality is explained (McCracken, 1989). This theory states that the perceptions of celebrity endorsers as credible are transferred to the endorsed brand (McCracken, 1989), and then from the brand to the customer through creating relational bonds. Dwivedi and Johnson (2013) also emphasizes that celebrity endorsers that are viewed as credible can potentially generate positive relational consequences towards the endorsed brand.

Brand relationship quality is not only directly associated with brand loyalty, but also can act as a mediator (Francisco-Maffezzoli et al., 2014; Roberts et al., 2013; Veloutsou, 2015; Valta, 2013). According to relationship marketing theory, customers perceive the strength of the relationship from the customers’ behavior in that relationship (Hunt et al., 2006). Thus, customers who feel attached to the brand tend to hold more favorable feelings, thereby increasing their brand loyalty. Valta (2013) states that consumers who are more positive in the perception of brand relationship quality, are more willing to remain loyal to the product. Based on these insights, the link between CEC and brand loyalty can be strengthened by brand relationship quality.

Therefore, the first hypothesis states the following:

H1. Brand relationship quality would mediate the link between CEC and brand loyalty.

2.2 The Moderating Role of Celebrity-Brand Congruence

Congruence is one of the most essential central constructs in the research area of endorsement. The term congruence has been added multiple synonyms and is often used interchangeably with a wide variety of other terms such as fit, match up effect, and link.

Misra and Beatty (1990) had defined celebrity-brand congruence and they refer to this as the extent to which a celebrity’s distinctive features coincides with the explicit attributes of the brand. According to Spry et al., (2011), celebrity-brand congruence refers to the degree to which people embrace a celebrity-brand fit as appropriate and logical. The more appropriate and relevant this fit, the more individual accepts the meaning. As the transfer meaning theory suggests, celebrity’s meaning and associations transmit to the brand via the endorsement and then from the brand to the user via behaviors. Such a process, based on celebrity-brand congruence, facilitates the formation an associative link, thereby increasing the transfer from one to the other. Previous studies have emphasized the importance of celebrity-brand congruence in fostering brand outcomes such as brand commitment (Albert et al., 2017; Dwivedi et al., 2015), brand attitudes (Gong and Li, 2017; Misra and Beatty, 1990; Min et al., 2019), and brand identification (Albert et al., 2017). In addition, celebrity-brand congruence was revealed to moderate the association between endorser credibility and brand equity (Dwivedi et al., 2015) as

well as the association between endorser credibility and brand evaluation (Dwivedi et al., 2014). Thus, it is logical to deduce that celebrity-brand congruence may moderate the relationship between CEC and brand relationship quality. Based on the above arguments, the link between CEC and brand relationship quality may be moderated by celebrity-brand congruence. Thus, the following hypotheses are stated:

H2. Celebrity-brand congruence would moderate the link between CEC and brand relationship quality, such that the link is stronger when celebrity-brand congruence is high.

In figure 1, the integrated model used in this study was illustrated.

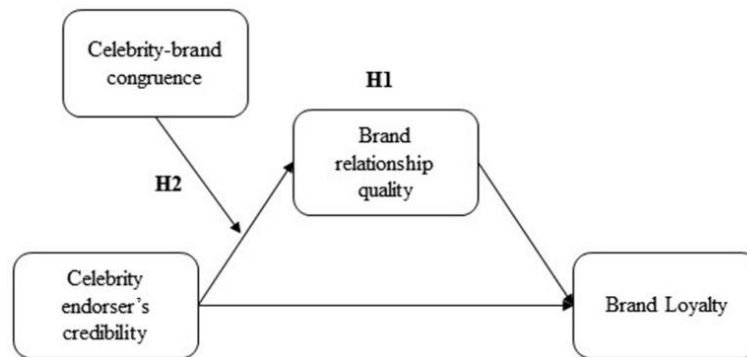


Figure 1. Research model

3. Research Method

3.1 Sample and Data Collection

Prior to conducting online survey, a pre-test was performed with eighteen respondents. The respondents were requested to recall the names of the Korean celebrities and their associated luxury brands. Two pairings with higher ratings such as KAI (EXO) – Gucci and G Dragon (Big Bang) – Chanel were retained for this study.

An online survey was employed via the research firm in South Korea. A total of 302 Korean respondents participated in the survey, and 297 usable responses were obtained.

The majority of the participants were females (57%) in their twenties (54%). In terms of educational background, 64% held a university degree. Furthermore, 42% were employees with a monthly household income between 2000USD to 4000USD (42%).

3.2 Instrument Design

The online questionnaire of the paper consisted of 24 items on a 7-point Likert scale. Ohanian (1990) had developed the measures of three items for CEC. For brand relationship quality, six items are derived from Chaudhuri and Holbrook (2001); Park et al., (2010); and Tsiros and Mittal (2000) tapped brand trust, attachment and satisfaction dimensions. Next, three items from Spry et al., (2011); Till and Busler (2000) measured celebrity-brand congruence construct. Finally, brand loyalty was assessed with three items from the scale in Veloutsou (2015).

4. Findings

4.1 Preliminary Analysis

Before conducting the main analysis, a series of preliminary analyses were undertaken. Confirmatory factor analysis (CFA) through the software of AMOS 22.0 was first applied to assess the validity of the constructs. The CFA revealed a good fit to the data (CMIN/df = 2.31, GFI = 0.919, NFI = 0.941, TLI = 0.957, CFI = 0.965, RMSEA = 0.066), with all factor loadings exceeding the recommended minimum of 0.70 by Nunnally (1978). This suggested threshold is also exceeded in the assessed reliability by the Cronbach's α of each construct. Composite reliability (CR) and the average variance extracted (AVE) evaluated further the convergent validity. The AVEs and CRs of all the constructs were greater than 0.50 and 0.70, respectively (Hair et al., 2012). In Table 1, the factor loadings, Cronbach's α , AVEs and CRs are summarized.

Table 1. Scale factor loadings

Construct	Items	Factor loadings	Cronbach α	AVE	CR
CEC	CEC1	0.78	0.81	0.68	0.87
	CEC2	0.78			
	CEC3	0.75			
BRQ	BT1	0.77	0.90	0.63	0.91
	BT2	0.82			
	BA1	0.80			
	BA2	0.73			
	BS1	0.76			
	BS2	0.72			
CBC	CBC1	0.89	0.94	0.87	0.95
	CBC2	0.92			
	CBC3	0.93			
BL	BL1	0.83	0.87	0.74	0.90
	BL2	0.84			
	BL3	0.84			

Note: CEC = Celebrity endorser's credibility; BRQ = Brand relationship quality; CBC = Celebrity-brand congruence; BL = Brand loyalty.

Finally, following the suggested criteria of Fornell and Larcker (1981) that if square root of AVEs were larger than the inter-construct associations, the discriminant validity is confirmed and this is shown in Table 2.

Table 2. Correlation matrix and the square root of AVE

Construct	CEC	BRQ	CBC	BL	Sq. R
CEC	1				0.825
BRQ	0.776**	1			0.793
CBC	0.709**	0.781**	1		0.933
BL	0.776**	0.800**	0.671**	1	0.860

Note: CEC = Celebrity endorser's credibility; BRQ = Brand relationship quality; CBC = Celebrity-brand congruence; BL = Brand loyalty.

**p < 0.01 levels

4.2 The Mediating Effect of Brand Relationship Quality

“Questions about cause-effect relations invoke the idea of mediation, the process by which some variables exert influences on others through intervening or mediator variables” (Preacher and Hayes, 2008, p. 879). It was anticipated that brand relationship quality would mediate the link between CEC and brand loyalty in Hypothesis 1. To test the first hypothesis, the bootstrapping procedure with 5000 cases at 95 percent-confidence intervals (CIs) in AMOS was implemented. It suggests that there is mediation if the CI does not contain zero (Preacher et al., 2007). As revealed by Table 3, the indirect path from CEC to brand loyalty via brand relationship quality was positive and significant ($\beta = 0.39$, 95% CI: 0.24-0.56), yielding support for Hypothesis 1. Nevertheless, brand relationship quality partially mediated the path from CEC to brand loyalty as the direct effect of this link was substantial ($\beta = 0.38$, 95% CI: 0.13-0.62).

Table 3. Results of mediation analysis

Hypothesis	β	SE	95% CI		Test results
			Lower	Upper	
H1: CEC \rightarrow brand relationship quality \rightarrow brand loyalty	0.39***	0.08	0.24	0.56	Supported

Note: ***p < 0.001

4.3 The Moderating Effect of Celebrity-Brand Congruence

In Hypothesis 2, anticipation was that celebrity-brand congruence would moderate the link between CEC and brand relationship quality. To test the second hypothesis, the multiple group analysis through AMOS was employed. “Multiple group analysis is a method to test the difference of path coefficients between two groups” (Bae, 2011, p. 467). Using a median split technique, the study sample was divided into two subgroups, high (n = 179) and low (n = 118) level of celebrity-brand congruence. To check the overall moderating effect of celebrity-brand congruence, the difference in chi square between constrained and unconstrained models was compared. The findings indicated that two models differed significantly ($\Delta\chi^2(9) = 25.35, p < 0.01$). Accordingly, further examination of moderating impact on each path was possible. As indicated in Table 4, celebrity-brand congruence significantly moderated the relationship between CEC and brand loyalty ($\Delta\chi^2(1) = 4.28, p < 0.05$), and this relationship revealed to be slightly stronger for the high level of celebrity-brand congruence group ($\beta = 0.47, p < 0.001$) than for the group of low level ($\beta = 0.65, p < 0.001$), providing support for Hypothesis 2.

Table 4. Results of moderation analysis

Hypothesis	Celebrity-brand congruence		$\Delta\chi^2$ (df = 1)	Test results
	Low	High		
H2: CEC → brand relationship quality	0.47***	0.65***	4.28**	Supported

Note: *p < 0.05; **p < 0.01; ***p < 0.001

5. Discussion and Implications

A number of previous research have investigated the direct relationship between CEC and consumer brand-related outcomes (Dwivedi et al., 2015; Spry et al., 2011; Dwivedi et al., 2014; Stafford et al., 2002; Wang et al., 2017). However, little is still known about underlying mechanisms in this relationship. In light of this, the present study aimed to address this gap through analyzing whether the link between CEC and brand loyalty was mediated of brand relationship quality using the meaning transfer theory. Furthermore, this study also intended to explore whether this link was moderated of celebrity-brand congruence. The results revealed that brand relationship quality had a partial mediating effect on CEC and brand loyalty. Moreover, it confirmed the moderating effect of celebrity-brand congruence on the relationship of CEC with brand relationships.

5.1 Theoretical Implications

The article contributes to the existing branding literature in two aspects. First, this study extends earlier theoretical findings by adding brand relationship quality as potential mediator of the association between CEC and brand loyalty. This finding aligns with existing studies indicating the influence of CEC on brand relationship quality (Dwivedi et al., 2016) and the bearing of brand relationship quality on brand commitment and brand loyalty (Albert and Merunka, 2013; Veloutsou, 2015; Valta, 2013).

Besides, it is important to note that brand relationship quality serve as a partial mediator in the relationship between CEC and brand loyalty. It means that CEC produces positive impacts on brand loyalty not only directly but also indirectly through brand relationships.

Second, this study is the first in the fashion luxury sector to explore the moderating role of celebrity-brand congruence in the relation between CEC and brand relationship quality. To be specific, CEC was more strongly related to brand relationship quality for high celebrity-brand congruence than for low one. High celebrity brand congruence may have a positive influence in advertised brand (Kamins, 1990), thus contributing towards building strong brand relationships.

5.2 Managerial Implications

The research also provides several suggestions for luxury marketers and advertisers alike. First, this research highlighted the mediating role of brand relationship quality between the influence of CEC on brand loyalty. This mediation mechanism provides luxury marketers a new insight into the process of achieving a demonstrable return on investments in celebrity endorsements. More specifically, luxury marketers should make investments

on credible celebrity endorsers to establish deep and close brand connections with consumers that can lead to loyalty.

Another meaningful suggestion of this research refers to the moderating role of celebrity-brand congruence on the path between CEC and brand relationship quality. It is clearly evident that higher celebrity-brand congruence leads to higher brand relationships. Thus, in order to enhance interactions between the brand and consumer, luxury managers should carefully select a celebrity by taking into account not only credibility, but also suitability of the celebrity endorsement. For instance, luxury marketers should manage and lead ad hoc research in order to assess the levels of congruence (Fleck et al., 2012).

6. Limitations and Future Research Direction

Despite these meaningful implications, this research has a number of shortcomings. First, the sample for this research was focused on Korean consumers, thereby restricting generalizability of the results. Future studies may extend research by collecting broader sample in other countries.

Second, the current study identifies brand relationship quality as partial mediating construct linking CEC to brand loyalty. To deepen the understanding of this link, future studies may consider other possible mediating constructs such as brand knowledge, brand reputation, etc. Also, it may be interesting to research the potential moderating impact of the other constructs such as relationship length and the level of involvement.

References

- Aaker, D. A. (1996). *Building strong brands*. New York: The Free Press.
- Albert, N., & Merunka, D. (2013). The role of brand love in consumer-brand relationships. *Journal of Consumer Marketing*, 30(3), 258-266. <https://doi.org/10.1108/07363761311328928>
- Albert, N., Ambroise, L., & Valette-Florence, P. (2017). Consumer, brand, celebrity: Which congruency produces effective celebrity endorsements? *Journal of Business Research*, 81, 96-106. <https://doi.org/10.1016/j.jbusres.2017.08.002>
- Bae, B. (2011). *Structural equation modelling with AMOS 19: Principles and practice*. Seoul, Korea: Cheongram Book.
- Caroll, B., & Ahuvia, A. (2006). Some antecedents and outcomes of brand love. *Marketing Letter*, 17(2), 79-89. <https://doi.org/10.1007/s11002-006-4219-2>
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81-93. <https://doi.org/10.1509/jmkg.65.2.81.18255>
- Crosby, L. A., Evans, K. R., & Cowles, D. (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing*, 54(3), 68-81. <https://doi.org/10.2307/1251817>
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61(2), 35-52. <https://doi.org/10.2307/1251829>
- Dwivedi, A., & Johnson, L. W. (2013). Trust-commitment as a mediator of the celebrity endorser-brand equity relationship in a service context. *Australasian Marketing Journal*, 21(1), 36-42. <https://doi.org/10.1016/j.ausmj.2012.10.001>
- Dwivedi, A., McDonald, R. E., & Johnson, L. W. (2014). The impact of a celebrity endorser's credibility on consumer self-brand connection and brand evaluation. *Journal of Brand Management*, 21(7/8), 559-578. <https://doi.org/10.1057/bm.2014.37>
- Dwivedi, A., Johnson, L. W., & McDonald, R. E. (2015). Celebrity endorsement, self-brand connection and consumer-based brand equity. *Journal of Product & Brand Management*, 24(5), 449-461. <https://doi.org/10.1108/JPBM-10-2014-0722>
- Dwivedi, A., Johnson, L. W., & McDonald, R. (2016). Celebrity endorsements, self-brand connection and relationship quality. *International Journal of Advertising*, 35(3), 486-503. <https://doi.org/10.1080/02650487.2015.1041632>
- Escalas, J. E. (2004). Narrative processing: Building consumer connections to brands. *Journal of Consumer Psychology*, 14(1/2), 168-180. https://doi.org/10.1207/s15327663jcp1401&2_19
- Esch, F. R., Langner, T., Schmitt, B., & Geus, P. (2006). Are brands forever? How knowledge and relationships affect current and future purchases. *Journal of Product and Brand Management*, 15(2), 98-105.

- <https://doi.org/10.1108/10610420610658938>
- Fleck, N., Korchia, M., & Roy, I. (2012). Celebrities in advertising: Looking for congruence or likability? *Psychology & Marketing*, 29(9), 651-662. <https://doi.org/10.1002/mar.20551>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.2307/3151312>
- Fournier, S. (1994). *A consumer-brand relationship framework for strategic brand management* (PhD thesis). University of Florida.
- Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343-373. <https://doi.org/10.1086/209515>
- Francisco-Maffezzoli, E. C., Semprebon, E., & Prado, P. H. (2014). Construing loyalty through brand experience: The mediating role of brand relationship quality. *Journal of Brand Management*, 21(5), 446-458. <https://doi.org/10.1057/bm.2014.16>
- Giovanis, A., & Athanasopoulou, P. (2017). Consumer-brand relationships and brand loyalty in technology-mediated services. *Journal of Retailing and Consumer Services*, 40, 287-294. <https://doi.org/10.1016/j.jretconser.2017.03.003>
- Gong, W., & Li, X. (2017). Engaging fans on microblog: the synthetic influence of parasocial interaction and source characteristics on celebrity endorsement. *Psychology & Marketing*, 34(7), 720-732. <https://doi.org/10.1002/mar.21018>
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433. <https://doi.org/10.1007/s11747-011-0261-6>
- Hess, J., & Story, J. (2005). Trust-based commitment: multidimensional consumer-brand relationships. *Journal of Consumer Marketing*, 22(6), 313-322. <https://doi.org/10.1108/07363760510623902>
- Hunt, S. D., Arnett, D. B., & Madhavaram, S. (2006). The explanatory foundations of relationship marketing theory. *Journal of Business & Industrial Marketing*, 21(2), 72-87. <https://doi.org/10.1108/10610420610651296>
- Kamins, M. A. (1990). An investigation into the “match-up” hypothesis in celebrity advertising: When beauty may be only skin deep. *Journal of Advertising*, 19(1), 4-13. <https://doi.org/10.1080/00913367.1990.10673175>
- McAlexander, J. H., Schouten, J. W., & Koenig, H. F. (2002). Building brand community. *Journal of Marketing*, 66(1), 38-54. <https://doi.org/10.1509/jmkg.66.1.38.18451>
- McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, 16(3), 310-321. <https://doi.org/10.1086/209217>
- Min, J. H., Chang, H. J., Jai, T. M., & Ziegler, M. (2019). The effects of celebrity-brand congruence and publicity on consumer attitudes and buying behavior. *Fashion and Textiles*, 6(10), 1-19. <https://doi.org/10.1186/s40691-018-0159-8>
- Misra, S., & Beatty, S.E. (1990). Celebrity spokesperson and brand congruence: An assessment of recall and affect. *Journal of Business Research*, 21(2), 159-173. [https://doi.org/10.1016/0148-2963\(90\)90050-N](https://doi.org/10.1016/0148-2963(90)90050-N)
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Ohanian, R. (1990). Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising*, 19(3), 39-52. <https://doi.org/10.1080/00913367.1990.10673191>
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63, 33-44. <https://doi.org/10.2307/1252099>
- Park, C. W., MacInnis, D. J., Priester, J., Eisingerich, A. B., & Lacobucci, D. (2010). Brand attachment and brand attitude strength: conceptual and empirical differentiation of two critical brand equity drivers. *Journal of Marketing*, 74(6), 1-17. <https://doi.org/10.1509/jmkg.74.6.1>
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185-227. <https://doi.org/10.1080/00273170701341316>

- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891. <https://doi.org/10.3758/BRM.40.3.879>
- Ramaseshan, B., & Stein, A. (2014). Connecting the dots between brand experience and brand loyalty: the mediating role of brand personality and brand relationships. *Journal of Brand Management*, 21(7/8), 664-683. <https://doi.org/10.1057/bm.2014.23>
- Roberts, K., Varki, S., & Brodie, R. (2013). Measuring the quality of relationships in consumer services: An empirical study. *European Journal of Marketing*, 37(1/2), 169-196. <https://doi.org/10.1108/03090560310454037>
- Spry, A., Pappu, R., & Cornwell, T. B. (2011). Celebrity endorsement, brand credibility and brand equity. *European Journal of Marketing*, 45(6), 882-909. <https://doi.org/10.1108/03090561111119958>
- Stafford, M. R., Stafford, T. F., & Day, E. (2002). A contingency approach: The effects of spokesperson type and service type on service advertising perceptions. *Journal of Advertising*, 31(2), 17-35. <https://doi.org/10.108/00913367.2002.10673664>
- Till, B. D., & Busler, M. (2000). The match-up hypothesis: Physical attractiveness, expertise, and the role of fit on brand attitude, purchase intent and brand beliefs. *Journal of Advertising*, 29(3), 1-13. <https://doi.org/10.1080/00913367.2000.10673613>
- Tsiros, M., & Mittal, V. (2000). Regret: A model of its antecedents and consequences in consumer decision making. *Journal of Consumer Research*, 26(4), 401-417. <https://doi.org/10.1086/209571>
- Valta, K. S. (2013). Do relational norms matter in consumer-brand relationships? *Journal of Business Research*, 66(1), 98-104. <https://doi.org/10.1016/j.jbusres.2011.07.028>
- Veloutsou, C. (2007). Identifying the dimensions of the product-brand and consumer relationship. *Journal of Marketing Management*, 23(1/2), 7-26. <https://doi.org/10.1362/026725707X177892>
- Veloutsou, C. (2015). Brand evaluation, satisfaction and trust as predictors of brand loyalty: the mediator-moderator effect of brand relationships. *Journal of Consumer Marketing*, 32(6), 405-421. <https://doi.org/10.1108/JCM-02-2014-0878>
- Wang, S. W., Kao, G. H. Y., & Ngamsiriudom, W. (2017). Consumers' attitude of endorser credibility, brand and intention with respect to celebrity endorsement of the airline sector. *Journal of Air Transport Management*, 60, 10-17. <https://doi.org/10.1016/j.jairtman.2016.12.007>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Exploring the impact of Corporate Social Responsibility on the Financial Performance of Rural and Community Banks in Ghana

Reindolph Osei Anim¹, Newman Amaning², Joyce Ama Quartey¹ & Patrick Twumasi Frimpong³

¹ Department of Accounting and Finance, Christian Service University College, Kumasi Ghana

² Department of Accountancy, Sunyani Technical University, Sunyani, Ghana

³ Finance Directorate, Sunyani Technical University, Sunyani Ghana

Correspondence: Newman Amaning, Sunyani Technical University, Sunyani, Ghana

Received: November 30, 2020

Accepted: December 30, 2020

Online Published: January 8, 2021

doi:10.5539/ibr.v14n2p37

URL: <https://doi.org/10.5539/ibr.v14n2p37>

Abstract

The interest of Rural and Community Banks (RCBs) in CSR activities which include education and leadership development, Health, Community development are geared towards ensuring the wellbeing of community members. This means that CRS is key to the success of RCBs. Based on the above reasons the study attempts to examine the influence of CSR on the financial performance of selected Ghanaian Rural and Community Banks. RCBs sampled for this study were fifteen (15) from the Kumasi Metropolis in Ghana using annual reports for a six-year-period from 2012 to 2017. Regression analysis was employed to measure the effect of CSR, financial indicators, bank age, and size of the board of directors using the Data Envelope Technique on the performance of the RCBs. Findings showed that technical efficiency and productivity were low in some RCBs over the six-year-period. The results also showed that technical change, technological change, and Total Factor Productivity affected performance. However, the size of the board of directors was inversely related to the performance of RCBs. There is therefore the need for RCBs to improve input savings and also ensure an efficient allocation of monetary resources to corporate social responsibility activities as a way of enhancing their overall productivity. Not much has been written about the impact of CSR on the financial performance of RCBs in Africa. This study thus is among the first significant attempts to explore the impacts of CSR on the financial performance of RCBs in Africa.

Keywords: rural and community banks, corporate social responsibility, corporate financial performance, data envelope analysis

1. Introduction

In the development of the financial system and the growth of the economy, the role banks play cannot be underestimated. It has become imperative lately that these banks should provide information on their commitments to the society, economy, and the environment in respect of their operations. In recent times banks have been involved in bridging the gap between themselves and the communities they serve, this they do through corporate social responsibility. CSR helps to improve the reputation of the bank and increase the customers' trust. (Shen, L., Govindan, K., & Shankar, 2015)

Corporate social responsibility has become a fast and significantly emerging practice amongst financial institutions in Ghana. It is one of the newest strategies which is used by management as a means of creating a positive effect in society while business is ongoing. Sharma (2019) define CSR as the continuous commitment by an organization to ethically behave to contribute to economic development while at the same time improving the quality of life of the employees and their family members as well as the local community and society at large. Ethical decisions can be undertaken by banks to secure their banking operations through well-informed decisions which will allow government agencies to reduce their investment in the establishments. Many reasons have been advanced to explain why banks voluntarily indulge in social activities. The involvement of a firm in socially responsible activities enables its management to enhance the perceived legitimacy of the social image of a firm and set higher performance standards for the top management (Naseem, Shahzad, Asim, Rehman, & Nawaz, 2019). However, according to Galant and Cadez (2017), accounting-based measurements are better predictors for CSR than market-based measures despite their limitations.

Some researchers hold the view that CSR has the propensity to improve upon the competitive edge of a firm in the long run. This means that there is a positive relationship between CSR involvement and firm performance (Saeidi, Sofian, Saeidi, Saeidi, & Saaeidi, 2015). The building of firm-specific social capital can be thought of as an insurance policy that pays off when investors and the overall economy face a severe crisis of confidence. Similarly, social capital, in addition to financial capital, can be an important determinant of firm performance, and identifies circumstances under which CSR can be beneficial for firm value. (Lins, Servaes, & Tamayo 2017). This linkage between CSR and the financial performance of firms is at least understood area of CSR (Angelidis, Massetti and Magee-Egan, 2008).

The main driving force behind this paper is that most of the works on corporate social responsibility looked at the impact of CSR in aggregation on bank performance. However, this paper decomposes CSR into four components; Education, Community development, health, and others. The paper attempts to look at the effect of these components in isolation and then went ahead to identify the combined effect of these components on bank performance.

2. Literature Review

2.1 Financial Environment Concepts

Financial environment components consist of markets and financial institutions that serve households, business firms, and governments. These constituents can be broadly categorized into the financial system and the banking system. Owing to their similarities in the concepts of these two terminologies, they can be used in place of each other.

2.1.1 Financial System

The financial system is made up of building societies, banks, and credit unions, which collectively make up a network of financial institutions. The role played by this network of financial institutions through financial flows are critical in the economic development of nations. These institutions through their intermediary role assist in deploying monetary resources effectively and efficiently (Lai, 2020). Financial intermediation functions as a vessel through which monetary resources are transferred from surplus financiers to deficit financiers.

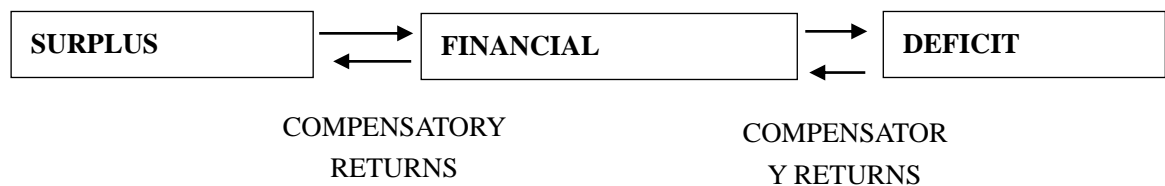


Figure 2.1. BANK FINANCIAL INTERMEDIATION

2.2 Theoretical Framework

Different scholars based on their academic and social exposure, prevailing interest, and their background have defined Corporate Social Responsibility (CSR) differently. CSR thus lacks a consensus definition. Additionally, these definitions are also influenced by these scholars’ frame of reference. Corporate social performance and corporate conscience are synonymous with CSR. The activities performed by firms to communities, including the provision of scholarships for schooling, providing social amenities, environmental protection measures such as reforestation, etc. are portrayed through CSR.

2.2.1 Social Costs Theory

According to Crane, McWilliams, Matten, Moon, & Siegel (2008), the responsible allocation of resources is the main driving force of the effect of corporate non-economic activities on the social-economic system. The problem of modern corporate responsibility deals with the effective and efficient allocations of social costs. The literature on social cost has an indirect influence on attempts to measuring social performance. In the literature of CSR, the challenges posed by foreign markets, according to Crane, McWilliams, Matten, Moon, & Siegel (2008), could be resolved by focusing on micro-businesses that are unique to particular communities.

2.2.2 Agency Theory

The concept of agency theory is an important phenomenon that goes along with shareholders-oriented values. Pepper and Gore (2015), report that the principle of agency theory has gained dominance in academic cycles

globally within the past decade. In line with this theory, business owners are seen as principals, and the managers entrusted with the day-to-day management of the firm as agents. Accordingly, the principals are owed a fiduciary commitment by the agents. The agents are motivated by monetary and non-monetary incentives to align their interests with that of the owners. This is done to ensure goal congruence in respect of shareholders' value maximization.

2.2.3 Stakeholder Theory

According to the tenets of this concept, the business exists mainly for value creation for its stakeholders. Artto, Ahola and Vartiainen (2016), argue that the value creation for stakeholders is done through the conversion of the interest of business into goods and services. Werther and Chandler (2010), conclude that the conversion process serves as a medium for the coordination of the interests of stakeholders. The stakeholder model from a business perspective started its "life" as a managerial theory, the reason being that business organizations must principally have it as an aim to manage the business for the benefit of its stakeholders.

2.2.5 Relational Theory

The complex connection between the business and the environment is the offshoot of this theory. The kind of society determines strongly the nature of the relational theory of corporate citizenship. Business organizations take this path to behave responsibly. The fundamental principle defining this theory concerns the association firms build with their stakeholders. It is thus imperative for corporations to endlessly search for connections and relationships with their stakeholders. Maon, Lindgreen, and Swaen (2009), report that corporate citizenship is a concept that is used under integrative and political theories. Relational theory is subdivided into four theories namely; business and society, stakeholder approach, social contract, and corporate citizenship.

2.3 Empirical Review

Extensive studies on the link between CSR and corporate financial performance (CFP) have been carried out by several researchers. Findings from these studies show a positive, negative, or insignificant relationship between the two variables.

Prior studies (*see* for example Saeidi et al., 2015; Genedy & Sakr, 2017; Inoue, Kent, & Lee 2011) have established a positive connection between CSR and CFP. The authors established a positive but modest link between CSR and CFP after comprehensively reviewing the literature. In their quest to appreciate the aspects of CSR that the market puts a premium on, Bird, Hall, Momentè and Reggiani (2007), found that the market values employee relations, diversity, and protection of the environment. However, in a study conducted on quoted firms on the Dow Jones Global Index, Hawn, Chatterji, and Mitchell (2018), conclude that there is an adverse connection existing between CSR and CFP. In the short run, Wang, Dou, and Jia (2016), argue that firms with weaker CSR performance achieve substantial financial performance.

2.4 Approaches for Measuring Bank Performance

There are two main approaches used in measuring banks' performance. They are the traditional approach that is based on accounting and referred to as the CAMEL approach and the parametric and nonparametric methods, i.e. the frontier applications.

2.4.1 The CAMEL Approach

In examining the performance of business units, this approach is mostly adopted. It is based on financial ratios. (Khrwish, & Al-Sa'di, 2011). These ratios are obtained from the statement of financial positions and the annual reports of these banks. Its wide application is a result of the simplicity that comes with its calculation. According to Nguyen and Dang (2020), this model is the most popular approach approved by regulators in the banking sector who have a keen interest in estimating efficiency.

The CAMEL model stands for capital adequacy (C), asset quality management efficiency (M), earnings quality (E), and liquidity (L). The motivation behind the use of this model lies in the probability of a bank failure in performance which would be revealed if any of the variables, whether input or output present any adverse sign. Ratios such as return on Asset (ROA), return on Equity (ROE), and net interest margin (NIM), according to Hasan, Manurung, and Usman (2020), are employed by this model. The CAMEL method ensures that the different financial health constituents of the financial institution are reviewed by using different ratios obtained and extracted from the financial statement. In the summary, a model is principally a ratio-based approach.

However, this approach presents some disadvantages. According to Bauer, Berger, Ferrier, and Humphrey (1998), these ratios do not truly indicate efficiency or performance since managers in an attempt to satisfy their interest massage these figures or ratios so to make the statements nice and attractive. They also fail to capture the

cross-sectional differences in input and output mixes. This is because they don't take into consideration their prices. The inability of this method to control for input and output mix and other exogenous market forces has a significant adverse effect on performance. The exogenous factors have the propensity to constrain standard performance ratios by decreasing their proximity to a more perfect estimating which would account for true performance.

2.4.2 Frontier Methods of Measuring Bank Performance

As a result of the various criticisms and shortfalls of the CAMEL approach to estimating performance, the frontier applications have been employed to determine efficiency. It can capture the deviations that occur in the performance estimate from that of the ideas "best practice firms" on the efficient frontier. It controls the effects which occur as a result of the existence of exogenous factors like the price in the local markets. It can estimate clearly how input and output prices affect bank performance.

According to Fethi and Pasiouras (2010), frontier applications present scores that can summarize bank efficiency in a single statistic. This will help to control the difference which occurs amongst businesses in a very complex multidimensional framework that is embedded in economic theory roots. In summary, the frontier application models present a more superior analysis to that of the accounting-based ratios. It is also a better estimate of a firm's efficiency, Silva, Tabak, Cajueiro, and Dias (2017).

The parametric also known as Stochastic Frontier Approach (SFA) and non-parametric also called Data Envelope Analysis (DEA) are the two main methods used in estimating bank efficiency. This study adopts the DEA approach in estimating the efficiency of RCBs in Ghana.

3. Methodology

3.1 Data

Secondary data was used in this study. All the data were gathered from the annual financial reports, sustainability reports, and reports on CSR from the websites of the selected RCBs in Ghana. 2012 – 2017 financial years, due to their availability were used for the study. This data covered six (6) years. In sum, a panel dataset of 120 observations which was well balanced was used. Macroeconomic factors data employed in this study were collected from the website of the Ghana Statistical Service (GSS, 2014).

3.2 Data Envelope Analysis (DEA)

With the DEA frontier approach, the performance of each bank is evaluated by economic (cost), technical or allocative efficiency based on the assumption that the banks can convert inputs into outputs. The DEA approach is suitable for assessing banks as it possesses the capability to turn out numerous outputs from multiple inputs. Every DMU is made up of numerous inputs and outputs, which when put together, produce an overall single measure of technical efficiency. DEA as a linear programming approach in assessing efficiency can mathematically be written as.

$$\begin{aligned} \text{Max } h &= \frac{\sum_r U_r Y_{rjo}}{\sum_i V_i X_{ijo}} && \text{subject to} \\ \frac{\sum_r U_r Y_{rj}}{\sum_i V_i X_{ij}} &\leq 1 && j = 1 \dots n \text{ (for all } j) \end{aligned}$$

Where the assumption is that U_r and V_i are always equal to some small positive quantity of ϵ , this helps to prevent any input or output from been ignored in the measurement and estimation of the banks' efficiency and productivity.

From the above equation if $h=1$ then the DMU will be considered to be efficient. In a situation where the $h < 1$, then the DMU will be deemed as not efficient.

3.3 Model Specification

3.3.1 First Stage Analysis: Evaluation of Rural Bank Efficiency.

The efficiency of rural and community banks which were sampled was done by the application of the non-parametric DEA approach based on technical efficiency and productivity.

3.3.1.1 Technical Efficiency

It is derived as a maximum of the ratio of the total sum of weighted outputs to the total sum of weighted inputs. The efficiency therefore equals.

$$E = \frac{\text{Weighted sum of output}}{\text{weighted sum of inputs}}$$

The weight for this ratio is derived through the limitation that related ratios for every decision-making unit should be equal to or less than one. This means a lot of inputs and outputs are lessened to a solitary “virtual” input and solitary virtual output unaccompanied by predesigned weights. In effect, the intuition is that the efficiency score is a function of the weight or the combination of inputs and outputs.

Assuming that there are ‘*r*’ inputs and ‘*f*’ outputs the relative technical efficiency score for a given DMU will be derived using a linear programming model as follows

$$\max \theta = \frac{\sum_{r=1}^s V_r R_{ro}}{\sum_{i=1}^m V_i R_{io}}$$

s.t

$$\frac{\sum_{r=1}^s V_r Y_{rj}}{\sum_{i=1}^m V_i X_{ij}} \leq 1; r$$

$$J = 1, 2, \dots, n$$

$$V_i \geq 0; i = 1, 2, \dots, m$$

$$U_r \geq 0; r = 1, 2, \dots, s$$

And X_{ij} = quantity of input *I* employed by DMU *J*

Y_{rj} = quantity of output churned out by the DMU *J*

V_i = weight of input *i*

U_r = weight of output *r*

The Charles Cooper transformation (1962) presents the representative solution (*V*, *U*) for which

$$\sum_{r=1}^m V_i X_{io} = 1$$

This means that the denomination in the efficiency θ shown in the above is set equal to one. This makes the transformed linear programming model for DMU to be written as

$$\text{Max } \theta = \sum_{r=1}^s v_r y_{ro}$$

$$\text{s.t } \sum_{r=1}^s v_r y_{rj} - \sum_{i=1}^m X_{ij} \leq 0 : j = 1, 2, \dots, n$$

$$\text{and } \sum_{r=1}^m V_i X_{io} = 1$$

Where $V_i \geq 0; i = 1, 2, \dots, m$

$u_i \geq 0; i = 1, 2, \dots, s$

The linear programming model shown above will be run n times to identify the relative efficiency score for all the DMUs. To maximize its efficiency, select input and output that best serves the purpose. In summary, a DMU is classified efficient when it has a score of 1.00 showing 100% efficiency. On the other hand, a score of less than 1.00 shows inefficiency relatively.

3.3.3 Second Stage Modeling

3.3.3.1 Modeling the Relationship between Bank Performance and CSR

In the second stage, we examine the effects of CSR investment on bank performance using the IV-GMM regression

$$y_{it} = \alpha + \delta y_{it-1} + \beta X_{it} + \delta G_t + u_i + \varepsilon_{it}$$

Where y_{it} denotes bank performance including technical efficiency and productivity. X_{it} represents the vector of CSR investment (including community development, health, education, etc.). While G_t represents the set of macroeconomic variables. α , β and δ show the parameters to be estimated. The subscripts i and t represent the cross-sectional and time dimension of the panel sample respectively. ε_{it} also shows white noise and u_i is the unobserved heterogeneity across the banks.

3.4 Variable Selection

The balanced panel data of 15 RCBs were used for this study. A six (6) year sample period thus from 2012 to 2017 was used. This gave 120 observations. Both bank-specific data and macro-economic variables were used for the research. To make a justified comparison with other previous research the variables were obtained from published financial statements which are highly used in published studies. It should however be noticed that the sample chosen for this research included only RCBs in the Ashanti region of Ghana.

The lists of variables used are illustrated in Tables 3.4.1 and 3.4.2 below.

Table 3.4.1. Variables and Measurements for the Second Stage Modelling

Variable	Indicators	Measurement	Expected Sign
Dependent Variable			
Rural Bank Performance	Technical Efficiency (TE)	Estimated using DEA-VRS approach	+(the higher the better)
	Productivity	Estimated using DEA-VRS approach	+(the higher the better)
Independent Variables			
Bank Specific Factors	Corporate Social Responsibility (CSR)	Investment on CSR	+ / -
	Non-Performing Loans Ratio (NPLR)	Ratio of Non-performing loans to total loans	+ / -
	Age of Bank	Age of Bank	+ / -
	Firm Size	Log of Total assets	The bigger the better
	Investment to total assets (Inv_TA)	Ratio of the investment to total asset	The bigger the better
Macroeconomic Variables	Gross Domestic Product (GDP)	Gross domestic product measured at constant price	+
	Inflation (Infl)	Annual inflation rate	-
	Interest rate		

Table 3.4.2. Variables Used in the Estimation and Measurements of Efficiency

Variable	Measurement
Output Variables	
Total loans	Total loans and advances in GHC
Customers Deposit	Total deposits made by customers in Ghana Cedis
Investments	Total investments made by the banks
Input Variables	
Salary of Staff	Total Staff Income in Ghana Cedis
Assets	Total assets held by banks
Interest Expense	Net interest earnings

4. Results and Discussion

4.1 First Stage Analysis

4.1.1 Measurement and Benchmarking of Rural Bank Efficiency based on the DEA Approach

Table 4.1. Technical efficiency – variable returns to scale

DMU	2012	2013	2014	2015	2016	2017	Mean	Rank
1	0.891	0.824	0.927	1	1	1	0.940	11th
2	0.817	0.874	1	1	0.944	1	0.939	12th
3	0.901	0.964	0.876	0.978	1	1	0.953	9th
4	1	1	0.876	1	1	0.985	0.977	7th
5	1	1	1	1	1	1	1	1st
6	1	1	0.958	0.953	1	1	0.985	6th
7	1	1	1	1	1	1	1	1st
8	1	0.955	0.645	0.782	0.749	0.821	0.825	14th
9	0.751	0.721	1	0.85	0.923	0.909	0.859	13th
10	1	0.994	0.883	0.855	0.918	1	0.941	10th
11	0.788	0.758	0.73	0.834	0.853	0.955	0.819	15th
12	1	1	1	1	1	1	1	1st
13	1	1	1	0.946	1	1	0.991	5th
14	1	1	1	1	1	1	1	1st
15	1	1	1	0.883	1	0.961	0.974	8th
Mean	0.943	0.939	0.926	0.939	0.959	0.975	0.947	

The first stage of the study presented the DEA efficiency frontier which calculated the technical efficiency for each chosen rural bank for the period under study.

Table 4.1 presents the results of the DEA efficiency scores. The results show that the overall average technical efficiency score is 94.7%. The implication is that the sampled rural banks have a 5.3% level of inefficiency in input usage. They can therefore obtain input savings of 5.3%. DMUs with an efficiency score of 1 are described as technically efficient. The annual technical efficiency scores showed that generally some of the selected rural banks are performing better in technical efficiency more than others as in the case of DMU 5, 7, 12, and 14. The DMUs with an efficiency score less than 1 are technically inefficient as in the case of 1, 2, 3, 4, 6, 8, 9, 10, 11, 13, and 15. The most inefficient banks are 8, 9, and 11: require input savings of 17.5%, 14.1%, and 18.1% respectively. The least inefficient banks are 4, 15, and 13: requiring input savings of 2.3%, 2.6%, and 0.9% respectively. DMUs 1 and 2 can obtain input savings of 6% and 6.1% respectively. In summary, technically inefficient DMUs need input savings according to their level of inefficiency in input usage.

4.1.2 Analysis of Productivity of Selected Rural Banks

The productivity results of DEA for the sampled RCBs are shown and discussed in this section. A summary of the annual performance is also presented to portray the trend over the study period. Table 4.2 shows the summarized form of the estimates of productivity changes as well as the components for each bank in the study period.

Table 4.2. Malmquist Index Summary of Annual Means

	effch	techch	pech	sech	Tfpch
2012/2013	1.018	0.912	0.995	1.023	0.929
2013/2014	0.984	0.992	0.984	1	0.976
2014/2015	0.999	1.115	1.018	0.981	1.113
2015/2016	1.041	0.887	1.022	1.018	0.922
2016/2017	1.022	0.922	1.019	1.003	0.942
Grand (2012-2017)	1.013	0.962	1.007	1.005	0.974

The above table shows the determinants of productivity. These are efficiency change (effch), technical change (techch), pure efficiency change (pech), scale efficiency change (sech) and total factor of productivity change (tfpch)

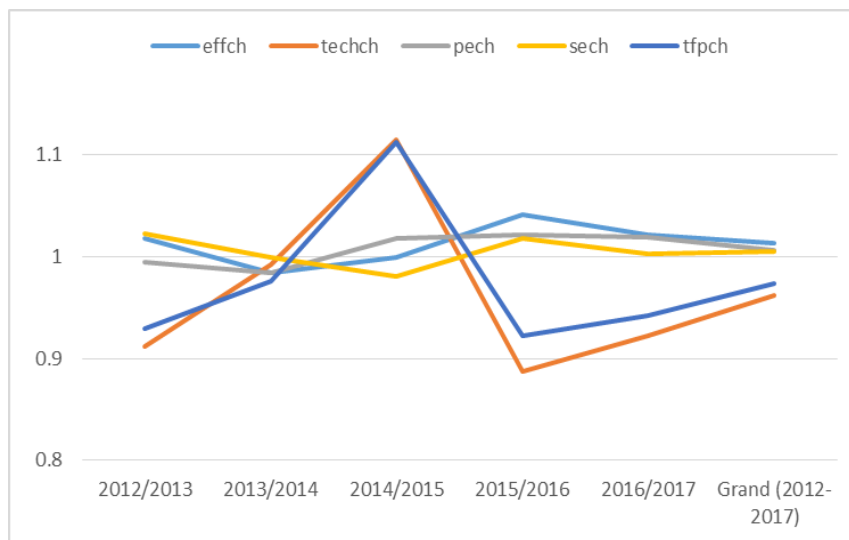


Figure 4.1. Annual means of productivity components

Primarily, out of the 15 banks sampled, only five (5) were seen to show technological improvement. These are banks 2, 3, 4, 5, and 12. These banks had scores greater than 1. The remaining 10 exhibited technological regress as shown in their scores. They had scored less than 1. Again eight (8) of the selected banks representing 53.3% understudy suffered productivity decline ranging from -0.21% to -0.26%. This reduction in productivity was a result of technological regress. It can also be seen that productivity grew from 0.14% to 0.4%. The observations in scale efficiency also showed that six (6) out of the sampled banks were scaling inefficient. This was manifested in their low productivity levels. The main source of productivity decline was pivoted on technological inefficiency and technological regress. Only a few of the banks exhibited both scale and technological efficiency. Bank 3 had the highest improvement in terms of productivity representing a growth rate of 0.12%. Bank 14 had the highest productivity decline of -0.26%

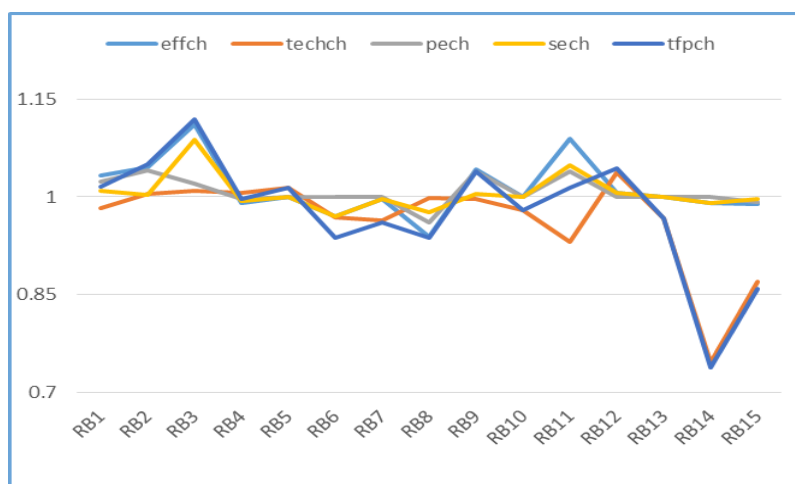


Figure 4.2. Overall summary of firm means of productivity estimates

Table 4.3. Frequency Distribution of TFP, TECH, EFFCH, PECH and SECH

EFFCH	Freq.	%	TECH	Freq.	%	TFP	Freq.	%	PECH	Freq.	%
< 1	6	40	< 1	10	66.67	< 1	8	53.3	<1	3	20
1	3	20	= 1	0	0	1	0	0	=1	7	46.67
> 1	6	60	> 1	5	33.33	> 1	7	46.67	>1	5	33.33
Total	15	100	Total	15	100	Total	15	100	Total	15	100

4.1.3 DEA Total Factor Productivity Changes (TFP) Summary of Annual Means

4.1.3.1 Total Factor Productivity Changes

This section of the study provides the outcomes for the total factor productivity changes (TFP), that is equivalent to the product of EFFCH (Efficiency change) and TECH (technical change). Observation from the table portrays that TFP was on the decline mostly in the years of 2012-2013, 2013-2014, 2015-2016, and 2016-2017. This shows that productivity is on the decline in between these years. TFP however improved between the years of 2014-2015. This means that in between these periods, there was an improvement in technological and efficiency changes. The overall TFP experienced a deterioration of -0.78%. The deterioration in TFP is however not a surprise owing to the presence of technical regress. Attributable to this discovery is a result of the seasonal changes in the banking industry in Ghana. Fundamental to this issue is that banks operating technology is season-specific.

4.1.3.2 Overall Change of TFP for the Study Period

The additional analysis presents the overall change of TFP for the study period. This helps to make a better comparison of the endpoint's years from the first period which is 2012-2013. As presented in the appendix, the results augment the initial observation that productivity declined during the period. In cumulative terms, there was a -14.4% reduction in TFP during the study period for the sampled RCBs. The rural banks employed 11.8% more inputs in 2016-2017 relative to 2012-2013. In cumulative terms, technological change showed a regress of -8.8% between 2012-2013. The accumulative trends for technological change show a regress (inward shift of the frontier) of -9.6% between 2013 and 2014. The cumulative technical efficiency, on the other hand, depicts progress (efficiency catch-up) of 0.2%. Impliedly, this principle depicts that whereas relatively less technically-efficient RCBs did catch-up with more technically-efficient ones in some years; they were still uneconomical using relatively more inputs in production. They were thus, unable to provide the same level of efficient services.

4.5 Second Stage Analysis

4.5.1 Modeling the Relationship between Bank Performance and CSR

In the second stage, we examine the effects of CSR investment on bank performance using the IV-GMM regression. The study critically examines the impact of CSR expenditure on rural bank performance over the sample period. The study explored the specific CSR components as well as other financial and non-financial

variables. Macro-economic factors were also employed to determine bank performance. The two-step GMM estimator approach is used to do the estimations. The outcomes of the estimations are presented in Tables 4.5 and 4.6. The study examines the impact of CSR expenditure on technical efficiency and productivity.

The first estimation is made up of two models that are interconnected. Model 1 focuses on the overall CSR investment. The estimation of model 1 is not only to explore the total CSR expenditure effects on technical efficiency but to also make a comparison of the current study to extant studies that have been mainly based on Technical efficiency.

Model two captures the various components of CSR investment and how they affect technical efficiency. This shows that the values were added hierarchically. This will help to track any problems concerning collinearity as they have the propensity of affecting the signs of the parameters which will consequently churn out inconsistent results. To solve the problem of any potential biases, the standard errors of the models were rectified using the Windmeijer (2005) finite sample correction. The instrument's validity in the system was checked using Sargan tests.

Table 4.5. Technical Efficiency: Dependent Variable

Technical Efficiency: Dependent Variable		
Variables	MODEL 1	MODEL 2
LnCSR	.092 (.042)***	
Lneducation		-.037(.186)*
Lncomdev		-.289(.157)*
Lnhealth		-.292 (.077)***
Lnother		.081 (.083)
Lndcp	-.008 (.0181)	-.105(.320)
Lnage	-.147 (.066)**	-.056(.103)
Npl	-.104 (.042)**	-.369(.533)
Lnroa	-.008 (.0181)	.135(.445)
Liability	-.147 (.066)**	-.369(.533)
Department	-.008 (.0181)	.135(.445)
Duality	-.147 (.066)**	.064 (.168)
Size	-.104 (.042)**	3.941 (3.520)
Females	-.008 (.0181)	-.369(.533)
Constant	-.147 (.066)**	.135(.445)
Diagnostic Test		
Chi-Square Value	36.53	36.53
Prob>Wald Chi ²	0.0000	0.000
Nos. Observations	120	120

*, **, *** denotes coefficients significant at 10%, 5% and 1%

4.5.1.1 Bank Specific Factors and Technical Efficiency

Model 1 focuses on the bank-specific factors. It showed that overall CSR investment affects performance. Corporate Social Responsibility is the bedrock on which community commitment to an organization hinge (Lorizio & Gurrieri (2019). It gives corporate organizations a competitive advantage in the market. This means that banks that perform CSR activities have a strong customer base and so they can generate a lot of returns on their investment leading to an improvement in Technical Efficiency (Xie, Nozawa, Yagi, Fujii, & Managi (2019). These findings support Saeidi et al. (2015) in their research on the impact of corporate social responsibility on firm performance. The results also show that other bank-specific factors like the age of the bank, non-performing loans, and growth in liabilities had a detrimental effect on technical efficiency (Waqas, Fatima, Khan, & Arif ,2017). This also confirms the learning curve hypothesis which posits that as bank gains experience over time, they can reduce waste as it learns lessons from past experiences, best practices in the industry to make informed decisions in the future. This helps to reduce risks and losses (Musaji et al., 2019).

4.5.1.2 Bank Liabilities and Technical Efficiency

It can also be seen that growth in liabilities has a statistically negative effect on technical efficiency. Growth in liabilities means that banks are earning less on assets. They take more deposits without using the funds to raise loans which will help them to increase their net interest income (Tesfai, 2015). Non-performing loans also harmed technical efficiency. A non-performing loan is a parameter for measuring credit quality. High NPLs means most of the banks are developing hardcore on their loan accounts (Ghosh, 2015). This therefore means

these banks have loan accounts which are static and not diminishing in the outstanding balance as a result of the non-payment of interest and principal. These findings collaborate with Tesfai 2015, who found a negative relationship between non-performing loans and performance.

4.5.1.3 Duality and Technical Efficiency

Duality was also statistically related to technical efficiency. Most of the Board members of these RCBs were found to be the managing directors of the banks. This made it difficult for them to separate ownership from Management. In effect they were not able to work efficiently through proper supervision and monitoring of banks' liabilities and their conversions into loans or assets. The size of the bank also had a negative relationship with Technical efficiency. This could be a result of poor monitoring and work specialization. Most of the workers were assigned to so many tasks hence they could not get use to one particular type of task to enhance specialization. This reduces overall performance. This supports the findings of Tower and Alkadry (2008), and (Waqas et al (2017).

4.5.1.4 Components of CSR and Technical Efficiency

In Model 2, It can be seen that Investment in Education and community development had a negative relationship with technical efficiency. However, the impact was statistically not significant. This means that an increase in education and community development investments do not result in a reduction of technical efficiency. However, expenditure on health had a strong negative and statistically significant effect on technical efficiency.

Table 4.6. Bank Productivity Indices: Dependent Variable

Variables	Bank Productivity Indices: Dependent Variable		
	MODEL 1	MODEL 2	MODEL 3
Lneducation	-0.0484(0.153)*	-0.14171(0.156) *	-0.1637(0.174) *
Lncomdev	-0.1228(0.091) **	0.002877(0.093) **	0.011235(0.104)*
Lnhealth	0.333705(0.157) *	0.185414(0.159) *	0.205496(0.178) *
Lnother	0.039647(0.085) **	0.060423(0.086) **	0.077862(0.097) **
Ln dcp	0.828081(1.054) *	2.15821(1.068) *	1.725251(1.197) *
Lnage	18.98316(8.629) *	26.39514(8.740) *	24.54861(9.788) *
Npl	-2.80991(1.352) *	-4.07505(1.369) *	-3.70605(1.533) *
Lnroa	0.331699(0.239) *	0.408674(0.242) *	0.448688(0.271) *
Liability	-0.59651(0.389) *	-0.94579(0.394) *	-0.88793(0.441) *
Department	0.062013(0.107) *	0.066258(0.108) *	0.038073(0.121) *
Duality	-0.11837(0.129) *	-0.16224(0.130) *	-0.18714(0.145) *
Size	-0.01651(0.047) ***	-0.02396(0.048) ***	-3.33E-02(0.054) **
Females	-0.08529(0.085) **	-0.08171(0.087) **	-8.54E-02(0.097) ***
Constant	-22.1827(9.545) *	-28.2819(9.660) *	-26.2575(10.815) *
Diagnostic Test			
Chi-Square	0.6629	0.7926	0.9995
Prob>Wald Chi ²	0.0000	0.000	0.000
Nos. Observations	64	64	64

*, **, *** denotes coefficients significant at 10%, 5% and 1%

The second stage of analysis is the estimation of the determinants of bank productivity which are Technical change, Technological Change, and Total factor productivity.

4.6.1 Technical Change and CSR Variables

In model 1, Technical change is regressed against the CSR variables which are community development, Health, Education, and miscellaneous activities. The purpose is to determine the extent to which these variables affect bank productivity.

4.6.1.1 Technical Change and Education

From the results, it can be seen that education has a negative but statistically insignificant effect on technical change. This implies that an increase in expenditure on education does not statistically affect the Technical change. This could be that expenditure in education is so important to community folks such that they build a strong bond and loyalty with the bank. This might have increased the customer base of the banks leading to larger deposits which creates large assets for the bank. This however rejects the findings of (Lorizio & Gurrieri, 2019) who revealed that CSR expenditure significantly affects bank productivity as a result of the reduction in

shareholder value.

4.6.1.2 Technical Change and Community Development

It is however interesting to note that expenditure on community development had a slightly statistically significant but inverse relationship with bank technical efficiency change. This implies that community development may not affect the rural community members directly. Rural community development is perceived to be a public good and therefore it does not create a strong commitment and loyalty with bank customers. Another observation is that investments in community developmental activities are normally in fixed assets which generally may not increase shareholder value. These findings support the work of Uwalomwa and Egbide (2012) who found a statistically significant negative relationship between CSR expenditure and bank productivity.

4.6.1.3 Technical Change and Health

Other findings reveal that investment in health activities had a positive and significant relationship with bank productivity. These health activities are essentially blood screening, the building of hospitals, and payment of hospital charges. These are seen as a very vital project which creates strong customer relations with depositors. This helps to increase the customer base thereby generating higher deposits which invariably creates an asset for the banks through loans. This supports the work of Maqbool and Zameer (2018), who revealed that CSR expenditure helps to create a competitive advantage for banks who involve themselves in CSR activities.

4.6.2 Technological Progress and CSR Variables

Model 2 is the estimation of CSR investment on the technological progress of the banks. Technological progress is one of the indices which measure bank productivity. It is the development, achievement in the overall process of invention, innovation as well as diffusion of technology or processes.

4.6.2.1 Technological Progress and Community Development

The results show that investments in Community development and other miscellaneous activities have a positive and somewhat significant relationship with technological change. Thus, an increase in these expenditures will lead to an increase in bank technological change.

4.6.2.2 Technological progress and education

It is also interesting to note that expenditure on education is negatively related to technological change. An increase in expenditure on education leads to a decrease in technological change. However, the p-value of 15.6% suggests that the effect is not very significant. This proves that expenditure on education may be so high but banks are compensated by an increase in customer loyalty. This will help the bank to raise enough funds to invest in technology.

4.6.2.3 Technological Progress and Health

Investment in health activities had a positive and significant relationship with bank productivity. These health activities are essentially blood screening, the building of hospitals, and payment of hospital charges. These are seen as a very vital project which creates strong customer relations with depositors. This helps to increase the customer base thereby generating higher deposits which invariably creates an asset for the banks through loans. This supports the work of Maqbool and Zameer (2018), who revealed that CSR expenditure helps to create a competitive advantage for banks who involve themselves in CSR activities

4.6.2 Total Factor Productivity (TFP) and CSR variables

Model 3 estimates the effect of CSR investment in Total Factor Productivity (TFP). It can be seen that investments in community development and health have a positive and significant effect on TFP. This is essential because customer's deposits are liabilities for the banks, however, they are the cheapest source of funds which the bank can use to create assets and earn interest income. This means that banks will have an increase in Net Interest Income as well as a higher percentage of Net Interest Margin. This will significantly increase bank productivity in terms of shareholder wealth maximization. These findings corroborate the works of Carlson and Akerston (2008) who found a positive and significant relation between CSR involvement and Total Factor Productivity. Expenditure on education was negatively related to bank productivity, however, the effect is not statistically significant. This implies that the huge capital outflow from the banks is compensated through an increase in deposits which create investment returns to the banks through the disbursement of loans and advances. This work empirically confirms the findings of Ojo (2008) that the relationship between CSR and TFP is not significant as shown by the p-value of 9.7%

4.5 Discussion of Results

The main objective of the study is to find out the effect of corporate social responsibility on the performance of RCBs in Ghana, particularly in the Ashanti region. Again, the study seeks to find out the impact of the CSR components on the indices of bank productivity which are technical change, technological change, and Total Factor Productivity. A total of 15 rural banks out of twenty-five (25) rural banks in the Ashanti region were sampled representing 60% of the entire population. Financial data were obtained from the annual reports of the bank for the periods of 2012-2017. Rural bank performance was evaluated from two main dimensions namely; technical efficiency and bank productivity using the widely used non-parametric DEA approach. The main reason for focusing on rural banks stems from the fact that these banks contribute significantly to economic growth and development. However, their operations are saddled with a lot of threatening challenges which invariably have a negative bearing on their sustainability. Additionally, these challenges affect their ability to perform their core functions. It is therefore expedient if not indispensable to identify these challenges and how they affect their productivity and then devise strategies to resolve them.

The findings of the study showed that the most of sampled rural banks were underperforming in respect of technical efficiency. The DEA efficiency revealed that the overall average technical efficiency score is 94.7%. The implication is that the sampled rural banks have a 5.3% level of inefficiency in input usage. They can therefore obtain input savings of 5.3%. DMUs with an efficiency score of 1 are described as technically efficient. The annual technical efficiency scores also show that generally some of the selected rural banks are performing better in technical efficiency more than others as in the case of DMU 5, 7, 12, and 14. The DMUs with an efficiency score less than 1 are technically inefficient as in the case of 1, 2, 3, 4, 6, 8, 9, 10, 11, 13, and 15. The most inefficient banks are 8, 9, and 11: require input savings of 17.5%, 14.1%, and 18.1% respectively. The least inefficient banks are 4, 15, and 13: requiring input savings of 2.3%, 2.6%, and 0.9% respectively. DMUs 1 and 2 can obtain input savings of 6% and 6.1% respectively. This means that technically inefficient DMUs need input savings according to their level of inefficiency in input usage.

Concerning bank productivity, by focussing on the bank-specific factors the research showed that overall CSR investment affects performance. Corporate Social Responsibility is the bedrock on which community commitment to an organization hinge on. It gives corporate organizations a competitive advantage in the market. This means that banks that perform CSR activities have a strong customer base and so they can generate returns on their investment leading to an improvement in Technical Efficiency. These findings support (Waqaset al., 2017) in his research on the impact of corporate social responsibility on firm performance.

The results also show that other bank-specific factors like the age of the bank, non-performing loans, and growth in liabilities harmed technical efficiency. This confirms the learning curve hypothesis which posits that as bank gains experience over time, they can reduce waste as it learns lessons from past experiences, best practices in the industry to make informed decisions in the future. Growth in liabilities was also on the high side meaning that banks are earning less on assets. They take more deposits without using the funds to raise loans which will help them to increase their net interest income (Tesfai, 2015). Non-performing loans also harmed technical efficiency. A non-performing loan is a parameter for measuring the credit quality, this means high NPLs arise as a result of the banks developing hardcore on their loan accounts. This, therefore, means these banks have loan accounts which are static and not diminishing in the outstanding balance as a result of the non-payments of interest and principal. These findings collaborate with Batir, Volkman, and Gungor (2017) who found a negative relationship between non-performing loans and performance.

Again, Duality was also seen to affect bank productivity. Most of the Board members of these RCBs were found to be the managing directors of the banks. This meant that it was practically impossible to separate ownership from Management. In effect, they were not able to work efficiently through proper supervision and monitoring of banks' liabilities and their conversions into loans or assets. The size of the bank also had a negative relationship with Total Factor Productivity. This is a result of poor monitoring and work specialization. Most of the workers are assigned to so many tasks hence they don't stick to one particular type of task to enhance specialization. This reduces overall performance. This supports the findings of Tower and Alkadry, 2008; and Waqaset al., 2017.

From the results, it can be seen that bank productivity has a negative but statistically insignificant effect on education. This implies that an increase in expenditure on education does not statistically affect the banks' productivity. Primarily expenditure in education is so important to community folks such that they build a strong bond and loyalty with the bank. This might have increased the customer base of the banks leading to larger deposits which creates large assets for the bank. This however rejects the findings of Lorizio and Gurrieri (2019), who revealed that CSR expenditure significantly affects bank productivity as a result of the reduction in

shareholder value.

It can be seen that investments in community development and health have a positive and significant effect on TFP. This is essential because customer's deposits are liabilities for the banks, however, they are the cheapest source of funds which the bank can use to create assets and earn interest income. This means that banks will have an increase in Net Interest Income as well as a higher percentage of Net Interest Margin. This will significantly increase bank productivity in terms of shareholder wealth maximization. These findings corroborate the works of Carlson and Akerston (2008) who found a positive and significant relation between CSR involvement and Total Factor Productivity. However, expenditure on education was negatively related to bank productivity.

5. Conclusions and Recommendations

5.1 Conclusions

The main objective of the research was to examine the effect of CSR investments on rural bank performance in the Ashanti Region of Ghana. The performance was measured from the dimensions of technical efficiency and bank productivity. There is a general assumption that economic growth and development are pivoted on bank performance. Therefore, the estimation of the performance of these banks is of critical concern to investors, managers, regulators, and policymakers. As a result of the empirical nature of the work, there was a need to have a comprehensive understanding of the banking system in Ghana.

The Data Envelope Technique approach was used in measuring technical efficiency and productivity. The study concentrated on a sample of 15 banks out of 25 RCBs in the Ashanti region from 2012-2017.

In aggregate terms, the findings of the study depict that the most of sampled rural banks were underperforming in respect of technical efficiency. The DEA efficiency revealed that the overall average technical efficiency score is 94.7%. The implication is that the sampled rural banks have a 5.3% level of inefficiency in input usage. They can therefore obtain input savings of 5.3%. DMUs with an efficiency score of 1 are described as technically efficient. The annual technical efficiency scores also show that generally some of the selected rural banks are performing better in technical efficiency more than others as in the case of DMU 5, 7, 12, and 14. The DMUs with an efficiency score less than 1 are technically inefficient as in the case of 1, 2, 3, 4, 6, 8, 9, 10, 11, 13, and 15. The most inefficient banks are 8, 9, and 11: require input savings of 17.5%, 14.1%, and 18.1% respectively. The least inefficient banks are 4, 15, and 13: requiring input savings of 2.3%, 2.6%, and 0.9% respectively. DMUs 1 and 2 can obtain input savings of 6% and 6.1% respectively. This means that technically inefficient DMUs need input savings according to their level of inefficiency in input usage.

5.2 Recommendations

In aggregate terms, the findings of the study depict that the most of sampled rural banks were underperforming in respect of technical efficiency and productivity. This means that there is more room for improvement for the RCBs in terms of their technical efficiency and productivity. The findings also portray that collectively Technical change; Technological change and Total Factor productivity need improvements in terms of efficient allocation of monetary resources to CSR activities. To give a road map to better performance, the findings provide critical policy implications for individual RCBs as well as their industry stakeholders (regulators) to improve the technical efficiency of these RCBs if they need to excel in undertaking their core mandates. Recommendations can be deduced from the findings in that, RCBs should improve their technical efficiency by reducing wasteful operations so they can undertake decisions that will be in the interest of the bank. This will help in leading to an improvement in technical efficiency as well as productivity of the banks. These RCBs must improve upon their efforts in generating non-interest income through commissions, net-earnings from the issuance of investment instruments as they would make a significant contribution to the productivity of RCBs.

5.3 Limitations of the Study

The research was carried out irrespective of the limitations. The work was carried out for a six-year period from 2012-2017. Therefore, any developmental trends which might occur before or after this period present a limitation. Another limitation is the availability of time where there is the need for a thorough and a comprehensive study. The time available was not adequate. Additionally, inadequate funds limited the research because of various expenses that was directly and indirectly incurred from the research.

5.4 Policy Implications

This study will help the managers of RCBs to understand that their involvement in societal activities can help in the management of social risk exposures as part of their main operations. This study will also help the

management of RCBs to understand better ways of institutionalizing good marketing policies and strategies for the bank. It will also help RCBs to attract, motivate, and retain competent employees who will assist them in achieving their state objectives.

It is also worth mentioning that rural banking performance depends largely on the availability and accessibility of credit to their clients. The rampant collapse of rural banks in the 1990s coupled with the high rate of insolvency and liquidity issues of RCBs is a major challenge that has become eminent in the financial sector. This research finding will serve as a yardstick to ascertain the effectiveness of actions, which hitherto were used to address the issues regarding the technical efficiency and productivity of rural banks. Also, the findings of this study will assist managers of these rural banks under review to effectively offer their performance against their target and the standards set by Central Banks.

References

- Angelidis, J. P., Massetti, B. L., & Magee-Egan, P. (2008). Does corporate social responsibility orientation vary by position in the organizational hierarchy? *Review of Business*, 28(3), 23.
- Arto, K., Ahola, T., & Vartiainen, V. (2016). From the front end of projects to the back end of operations: Managing projects for value creation throughout the system lifecycle. *International Journal of Project Management*, 34(2), 258-270. <https://doi.org/10.1016/j.ijproman.2015.05.003>
- Batir, T. E., Volkman, D. A., & Gungor, B. (2017). Determinants of bank efficiency in Turkey: Participation banks versus conventional banks. *Borsa Istanbul Review*, 17(2), 86-96. <https://doi.org/10.1016/j.bir.2017.02.003>
- Bauer, P. W., Berger, A. N., Ferrier, G. D., & Humphrey, D. B. (1998). Consistency conditions for regulatory analysis of financial institutions: a comparison of frontier efficiency methods. *Journal of Economics and Business*, 50(2), 85-114. [https://doi.org/10.1016/S0148-6195\(97\)00072-6](https://doi.org/10.1016/S0148-6195(97)00072-6)
- Bird, R., Hall, A. D., Momentè F., & Reggiani, F. (2007). What corporate social responsibility activities are valued by the market? *Journal of business ethics*, 76(2), 189-206. <https://doi.org/10.1007/s10551-006-9268-1>
- Carlsson, J., & Åkerstöm, R. (2008). *Corporate Social Responsibility: a case study of Öhrlings PricewaterhouseCoopers*.
- Crane, A., McWilliams, A., Matten, D., Moon, J., & Siegel, D. S. (Eds.). (2008). *The Oxford handbook of corporate social responsibility*. Oxford University Press on Demand. <https://doi.org/10.1093/oxfordhb/9780199211593.003.0001>
- Fethi, M. D., & Pasiouras, F. (2010). Assessing bank efficiency and performance with operational research and artificial intelligence techniques: A survey. *European journal of operational research*, 204(2), 189-198. <https://doi.org/10.1016/j.ejor.2009.08.003>
- Galant, A., & Cadez, S. (2017). Corporate social responsibility and financial performance relationship: a review of measurement approaches. *Economic research-Ekonomska istraživanja*, 30(1), 676-693. <https://doi.org/10.1080/1331677X.2017.1313122>
- Genedy, A., & Sakr, A. (2017). The relationship between Corporate Social Responsibility and Corporate Financial Performance in developing countries. Case of Egypt. *International Journal of Business and Economic Development (IJBED)*, 5(2).
- Ghana Statistical Service (GSS, 2014).
- Ghosh, A. (2015). Banking-industry specific and regional economic determinants of non-performing loans Evidence from US states. *Journal of Financial Stability*, 20, 93-104. <https://doi.org/10.1016/j.jfs.2015.08.004>
- Hasan, M. S. A., Manurung, A. H., & Usman, B. (2020). Determinants of Bank Profitability with Size as Moderating Variable. *Journal of Applied Finance and Banking*, 10(3), 153-166.
- Hawn, O., Chatterji, A. K., & Mitchell, W. (2018). Do investors actually value sustainability? New evidence from investor reactions to the Dow Jones Sustainability Index (DJSI). *Strategic Management Journal*, 39(4), 949-976. <https://doi.org/10.1002/smj.2752>
- Inoue, Y., Kent, A., & Lee, S. (2011). CSR and the bottom line: Analyzing the link between CSR and financial performance for professional teams. *Journal of Sport Management*, 25(6), 531-549. <https://doi.org/10.1123/jsm.25.6.531>

- Khrawish, H. A., & Al-Sa'di, N. M. (2011). The impact of e-banking on bank profitability: Evidence from Jordan. *Middle Eastern Finance and Economics*, 13(1), 142-158.
- Lai, K. P. (2020). The Dis/Re-Intermediation of Finance? *The Routledge Handbook of Financial Geography*, 440. <https://doi.org/10.4324/9781351119061-24>
- Lins, K. V., Servaes, H., & Tamayo, A. (2017). Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. *The Journal of Finance*, 72(4), 1785-1824. <https://doi.org/10.1111/jofi.12505>
- Lorizio, M., & Gurrieri, A. (2019). 1. CORPORATE SOCIAL RESPONSIBILITY OVER TIME. *Corporate social responsibility and firms*, 9.
- Maon, F., Lindgreen, A., & Swaen, V. (2009). Designing and implementing corporate social responsibility: An integrative framework grounded in theory and practice. *Journal of Business Ethics*, 87(1), 71-89. <https://doi.org/10.1007/s10551-008-9804-2>
- Maqbool, S., & Zameer, M. N. (2018). Corporate social responsibility and financial performance: An empirical analysis of Indian banks. *Future Business Journal*, 4(1), 84-93. <https://doi.org/10.1016/j.fbj.2017.12.002>
- Musaji, S., Schulze, W. S., & De Castro, J. O. (2019). *How Long Does It Take to "Get to" the Learning Curve?* *Academy of Management Journal*. <https://doi.org/10.5465/amj.2017.1145>
- Naseem, T., Shahzad, F., Asim, G. A., Rehman, I. U., & Nawaz, F. (2019). *Corporate social responsibility engagement and firm performance in Asia Pacific: The role of enterprise risk management*. *Corporate Social Responsibility and Environmental Management*. <https://doi.org/10.1002/csr.1815>
- Nguyen, H. D. H., & Dang, V. D. (2020). Bank-specific determinants of loan growth in Vietnam: evidence from the CAMELS approach. *The Journal of Asian Finance, Economics, and Business*, 7(9), 179-189. <https://doi.org/10.13106/jafeb.2020.vol7.no9.179>
- Ojo, O. (2008). Appraisal of the practice of social responsibility by business organizations in Nigeria. *LESIJ-Lex ET Scientia International Journal*, 15(1), 155-165.
- Pepper, A., & Gore, J. (2015). Behavioral agency theory: New foundations for theorizing about executive compensation. *Journal of management*, 41(4), 1045-1068. <https://doi.org/10.1177/0149206312461054>
- Saeidi, S. P., Sofian, S., Saeidi, P., Saeidi, S. P., & Saaeidi, S. A. (2015). How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. *Journal of business research*, 68(2), 341-350. <https://doi.org/10.1016/j.jbusres.2014.06.024>
- Sharma, E. (2019). A review of corporate social responsibility in developed and developing nations. *Corporate Social Responsibility and Environmental Management*, 26(4), 712-720. <https://doi.org/10.1002/csr.1739>
- Shen, L., Govindan, K., & Shankar, M. (2015). *Evaluation of Barriers of Corporate Social Responsibility Using an Analytical Hierarchy Process under a Fuzzy Environment—A Textile Case*. *Sustainability*, 7(3), 3493-3514. <https://doi.org/10.3390/su7033493>
- Silva, T. C., Tabak, B. M., Cajueiro, D. O., & Dias, M. V. B. (2017). A comparison of DEA and SFA using micro-and macro-level perspectives: Efficiency of Chinese local banks. *Physica A: Statistical Mechanics and its Applications*, 469, 216-223. <https://doi.org/10.1016/j.physa.2016.11.041>
- Tesfai, A. (2015). *Evaluating the Relationship Between Liquidity, Capital Adequacy and Non-Performing Loans on Financial Performance: Case Study of Habib Bank Ag Zurich*. Unpublished Research Project Report Submitted to the Chandaria School of Business, United States International University.
- Tower, L. E., & Alkadry, M. G. (2008). The Social Costs of Career Success for Women. *Review of Public Personnel Administration*, 28(2), 144-165. <https://doi.org/10.1177/0734371X08315343>
- Uwalomwa, U., & Egbide, B. (2012). Corporate Social Responsibility Disclosures in Nigeria: A study of Listed Financial and Non-Financial Firms. *Journal of Management and Sustainability*, 2(1) 160-169. <https://doi.org/10.5539/jms.v2n1p160>
- Wang, Q., Dou, J., & Jia, S. (2016). A meta-analytic review of corporate social responsibility and corporate financial performance: The moderating effect of contextual factors. *Business & Society*, 55(8), 1083-1121. <https://doi.org/10.1177/0007650315584317>

- Waqas, M., Fatima, N., Khan, A., & Arif, M. (2017). Determinants of Non-performing Loans. *International Journal of Finance & Banking Studies* (2147-4486), 6(1), 51-68. <https://doi.org/10.20525/ijfbs.v6i1.617>
- Werther Jr, W. B., & Chandler, D. (2010). *Strategic corporate social responsibility: Stakeholders in a global environment*. Sage.
- Xie, J., Nozawa, W., Yagi, M., Fujii, H., & Managi, S. (2019). Do environmental, social, and governance activities improve corporate financial performance? *Business Strategy and the Environment*, 28(2), 286-300. <https://doi.org/10.1002/bse.2224>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

The Impact of Learning Organizations Dimensions on the Organisational Performance: An Exploring Study of Saudi Universities

Abdulrahim Zaher Meshari^{1,2}, Majed Bin Othayman^{1,2}, Frederic Boy¹, & Daniele Doneddu¹

¹School of Management, Swansea University, Swansea, United Kingdom

²Business School, King Khalid University, Abha, Kingdom of Saudi Arabia

Correspondence: Frederic Boy, School of Management, Swansea University, Swansea, United Kingdom.

Received: November 2, 2020

Accepted: January 13, 2021

Online Published: January 25, 2021

doi:10.5539/ibr.v14n2p54

URL: <https://doi.org/10.5539/ibr.v14n2p54>

Abstract

The education sector is crucial to any nation committed to building future human capital. The Higher Education sector in the Kingdom of Saudi Arabia (KSA) is at the centre of transforming the nation's future in a radical move to end oil-dependency. But this is only possible if universities make a decisive change and start working as learning organisations in all employee's levels. The present study investigates the direction of higher education in becoming learning organisations. We collected data from 840 staff members in 20 public Saudi universities. We designed a questionnaire exploring the seven dimensions of learning organisation found in the literature. Regression analyses were used to assess the impact of those dimensions on the organisational performance. Results showed that universities that adhered most to the learning organisation principles demonstrated a better *organisational performance*, particularly concerning research and knowledge performance. We recommend that universities should (1) use change agents to help transform effectively and meet rising demands and (2), promote continuous learning for all employees to increase productivity.

Keywords: higher education, learning organisation, organisation performance.

1. Introduction

The global economic environment is undergoing drastic changes as knowledge substitutes physical capital as the foundation for current and future wealth (Song et al., 2009). Knowledge in biotechnology, information technology, and other innovative technologies which have shaped the way people live and do businesses (Cosgrove & Loucks, 2015). As the need for knowledge has become so paramount, the demand for university knowledge is also rising. Globally, the impact of higher education on social and economic development increases annually, and this is projected to continue throughout the century. University education is a centre of knowledge and its application (Boguslavskii, & Neborskii 2016). This is because a university forms the breeding ground of the innovations and skills meant to improve the lives and solve problems affecting people. According to UNESCO, university education creates harmony and a clear link between the development of the community and education (Boguslavskii, & Neborskii 2016). OECD states that the best way to enhance productivity growth and create highly paid employment is through investment in knowledge creation (Nielsen et al., 2011).

Although universities have for long been the main source of knowledge and continue to be, they face major challenges and need to adapt, just like other actors in a volatile market (Song et al., 2018). Around the world, numbers of policies and programs have been set up in support of the higher education sector. For example, since 1983, the US introduced more than one rating system for institutions of higher learning which indicates how much a college performs concerning different aspects of knowledge and education (Hazelkorn, 2013). This move started more than a century ago when Charles W. Eliot, the influential president of Harvard University, spearheaded an amendment of the existing higher education curriculum (Geiger, 2019). This early reform was meant to create efficiency and answer questions concerning the cost of degree courses. The National Institutional Ranking Framework (NIRF) and the National Assessment Accreditation Council (NAAC) (Yeravdekar & Tiwari, 2016) in India are other instances of efforts made to improve university education. Such policies and measures enhance and harness the comprehensive performance of university education (Saifulhafizi, 2014).

Although learning institutions exist in the same environment as other businesses, their main purpose is not to make profits, but rather to teach and foster research. This has forced these institutions to adopt several measures which set them apart from their rivals. In the bid to remain competitive, universities have been using various strategies including restructuring and on job training programs (Imam et al, 2013). According to Al-Hemyari

(2019), the performance and quality of universities are important to the success of the institution both in short term and long-term. A culmination of the policy measures and management strategies are on track to enhancing research and knowledge performance, but does not make the institution a "learning organisation": an organisation that helps employees engaging into continuous learning, and create the conditions for knowledge to be shared among the actors (Saifulhafizi, 2014; Goh, 1998).

1.1 The Higher Education (HE) Sector in the KSA

In order to comprehensively understand higher education in Saudi Arabia, it is essential to start from the early establishment of higher education sector in the country. The ministry of education was started in 1954 to manage and oversee the existing educational institutions in Saudi Arabia. A considerable number of students willing to undergo higher education were forced to move abroad (Alshuwaikhat et al., 2016). This prompted the government to establish the King Saud public University in 1957. Although students were only male, the establishment of King Saud University marked the start of the contemporary higher education in the Kingdom. The Kingdom now has more than 50 public and private institutions of higher education in the nation. In 2018, the country now boasts having 21 universities ranked among the top 100 in the Arab region (Altbach, Reisberg, Salmi, & Froumin, 2018).

The ministry of education has been receiving, over the years, a constant flow of funding from the national government. As a part of this funding, in the year 2005, the King Abdullah Scholarship program led to the education of hundreds of students in foreign nations including Canada, the United Kingdom, Australia, and the United States (Smith & Abouammoh, 2013). The performance of such grant scheme was recognised by UNESCO, which ranked Saudi Arabia as the fourth nation in granting scholarship ahead of the US and Japan (Islam, 2014). Nowadays, current and next generations have a better chance of gaining university knowledge than the previous ones (Saifulhafizi, 2014).

If access to knowledge provision is rapidly improving, the performance of the universities as organisations is not. Several challenges are hindering the future success of these institutions. Indeed various research including (Alkhatlan et al., 2014; Hilal et al., 2015) have shown that the biggest challenge facing the Kingdom's major sectors is not policies, but the collapse of the oil industry whose wealth has been trickling down to all other sectors. To date, oil reserves are estimated to be depleted within 90 years. If universities continue to proceed the way they have been functioning, their very existence is at risk (Al-shehry, 2009). This comes at a time when the country is looking for ways to diversify its economy. As highlighted in the nation's Vision 2030 (Khan & Khan, 2020), the KSA is expecting to boost the economy, create more job opportunities in the private sector, transfer state-owned assets to private organisations, and build on non-oil dependent exports. Education, notably HE, is considered an epicentre of the changes that are needed to take place in the nation shortly (Hilal et al., 2015). As stated by Hvidt (2013) in the Economic Diversification in Gulf Cooperation Council (GCC) countries publication, the government has recognised that post-secondary education has a crucial role to play in driving the nation socially and economically reduce the reliance on oil reservoirs. As such, a considerable amount of time and resources are being devoted to developing the R&D sector, entrepreneurship initiatives, technology, and modern innovation. Such efforts are spearheaded not only to impart knowledge to students, but also to promote the expansion of off-campus high-value-added, knowledge economy businesses and jobs. In this vein, there has been an increasing trend in the number of interactions between businesses and Saudi universities. The relationship is promising, particularly considering that both universities and businesses are striving to better the national economy sustainably. However, this relation may be problematic as universities have traditionally considered themselves as learning institutions with three main goals: teaching, community service, and research (Hvidt, 2013).

The government has invested a lot in transforming Universities' facilities and services and adopting world-class standards. However, as was hinted by Al-shehry (2009), the transformation of the institutions is skewed toward traditional business practices; it is not very common to witness the adoption of pertinent learning organisations practices which will enable them to achieve the envisioned transformation. "Learning organisation" practices are described at the activities, programs and behaviours that enable organisations to develop new practises and acquire new knowledge to improve organisational performance and create a competitive advantage. For institutions trying to become "learning organisations", they still fail in executing some of the dimensions of learning organisation as was conceptualised by Yang, Watkins & Marsick (2004). Learning organisations contracts are appropriate in the public education sector because they enhance knowledge acquisition. The ministry of education is looking forward to rolling our new curriculum that emphasises on enhancing critical thinking. Another important and perhaps very important for the present paper is the fact the ministry is also investing in training public universities' staff members. It also expected that the use of modern educational methods such as distance learning, multimedia and embedded learning, will be rolled out over the years to come (Al-shehry, 2009). In knowledge-driven economies, human capital is considered as one of the key drivers in the

economy. Saudi Arabia has recognised this (Al-Musali & Ku Ismail, 2014) and this is why the government is looking forward to creating a population composed of highly educated citizens (Othayman et al., 2020). In the coming years, the number of citizens holding degree and post degree programs will be high. This is good to the economy considering that specialised knowledge leads to better productivity. Education, particularly higher education is expected to have a rippling effect as per the predictions of the Saudi government Vision 2030 strategic framework.

1.2 Significance of the Present Research

In the present socio-economic context, the aims of the present research are twofold: First, it quantifies how Saudi Universities currently apply the main principles of a "learning organisation", and second, envisages how further development can be beneficial to universities, views that will be of interest to both the government and the private sector. Our findings will be useful to law and policy-makers as they are mandated to set out the general principles that govern the education sectors in a challenging and changing environment. The study will also prove useful to businesses that are looking for strategies to drive their firms into the future of the nation post the oil-reliant economy.

2. Theoretical Review

2.1 Organizational Learning Theory

Successful organisations are those that learn faster than their rivals and then employ the knowledge in their practices (Senge, 2014). The origins of organisational learning are traced back to the offset of the 1970s as cited by Argyris & Schon (2011). The term organisational learning has been defined quite differently by past researchers, and this has created confusion around the subject (Goh, 1998). Therefore, there is no recognised unified definition of a "learning organisation" that has been cumulated by the previous researchers. The existing management literature has however been cited to skew towards the development of diagnostic tools useful to managers in identifying and enhancing their firm's learning capability.

Some researchers portray the "learning organisation" as a collective term that brings various concepts together (Mbuthia, 2018). Such definitions hold that a "*learning organisation*" refers to *is the sum of individual learning in an organisation and organisation learns in only two ways: (a) by the learning of its members or (b) by ingesting new members who know the organisation did not previously have* (Senge, 2014). However, these definitions all tend to consider the organisation as if it was an organism with a nervous system that would commit errors because of biased cognitive systems and memories, that conserve specific values, norms, and organisational behaviors. These organisational memories would, in turn, influence the employees and team learning in the organisation (Senge, 2014).

Previously there have been several attempts to design versions of the organisational learning (OL) models. They include what has been termed as a classical model, a multifaceted model, a computational model, or a sociological model (Senge, 2014; Mbuthia, 2018). In the OL framework, much of the evidence indicates that the key differentiator between public and private sectors mainly reside in one dimension describing how individual member of the organisation integrate new knowledge. Employee learning in organisations in the public sector has particularly been found to be the following models that are different from those in the private sector. This difference is mostly because these organisations are influenced by drivers that emanate from the political arenas. There has been a major shift as different campaigns urge for the adoption of reforms that enhance the capacity of the public organisations to meet demands for the citizens and changes in technology.

This has evoked the issue of employee learning in public institutions and the link to innovation and organisational change. A study conducted by (Goh, 1998) showed that the institutions in the public sector had higher levels of learning as compared to private institutions.

The Learning organisation as a construct has borrowed notions and concepts from various disciplines, including organisational development, cognitive science, and system theory. There is a clear line of separation between organisational learning and learning organisation. *While organisational learning is a by-product of normal work, a "learning organisation" is a process that creates constant learning. A learning organisation can be used as a tool to achieve the various aspects of organisational performance such as shareholder returns, financial performance, and product market* (Argyris & Schon, 2011).

Senge (2014), states that learning organisation is institutions of creativity and innovation via the creation of free and enabling environments. A "learning organisation" forms a good environment that enables people to expand their capacity to achieve desired goals continuously. In such an organisation, thinking out of the norms, collective goals are encouraged. This is the kind of organisation that Yang, Watkins & Marsick (2004) describe as possessing capabilities to constantly adapt and update itself in a changing business market. In 1990, Senge identified five salient so-called disciplines (or required set of competencies) in the learning organisation. These disciplines include the need to adopt system thinking/connection, a reliance on personal mastery (the

commitment of employees to the organisation's learning), mental models, the adoption of a shared vision, and the ability for a team to learn. He later updated these disciplines in his 1994 papers where he codified the practices that organisations should use to become 'learning organisations' (Senge, 1994). Senge called these practices *The 5 Learning Disciplines*. The paper also explained why some organisations become better at building learning capacity than others. The five learning disciplines are important to this research because each of them is composed of a set of practices and tools which are inclined to create a sustainable leadership capacity. Senge described leaders as individuals put in a position to thrive on constant innovation and change by utilising the five disciplines. Whether in nonprofit organisations like public universities or profit-oriented businesses, the approach to learning-centered leadership and improvement is grounded on language, principles, concepts, and values of learning organisations (Senge, 1994; 2014).

2.2 *The Various Disciplines of a "Learning Organisation"*

2.2.1 System Thinking

System thinking is considered to be the cornerstone among the other five disciplines. It refers to the ability to envision the big picture, the ability to not only understand the whole picture but also the components that create the motive and means to integrate other disciplines. Businesses encounter different challenges some of which are simple, while others are complex to handle. To succeed organisations are required to focus and familiarise themselves with the complexities at hand. One of the best ways to handle a complicated situation is the application of simple strategies. According to Senge (2014), simple strategies offer a quick solution and high chances of leading to organisational performance. However, these strategies also present the risk of compromising the future of the organisation. *Organisational leaders tend to look at organisations as a part of a bigger picture instead of looking at the organisation's full picture.* Senge (1990) shared the phrase that organisations learn best through experience. Certain short-term actions or simple strategies to reduce advertising as a way to cut on the operational cost may lead to a drop in the long-term sales of the organisation. This reiterates the argument made earlier that simple strategies maybe solutions to complex situations, but they cause an adverse impact in the future. The organisational leaders, therefore, need to be acquainted with enough knowledge and experience to perform such steer the organisation in the right direction.

System thinking also states that changing or disrupting the flow of power in an organisation causes ripple effects on the action and decisions made. The managers also need to keep abreast of the feedback system established in the organisation. Ignoring the feedback from the users of organisations may lead to short term as well as the long-term impact of the performance of the organisation.

2.2.2 Personal Mastery

Personal mastery is another "discipline" that is concerned with the employees' commitment to the firms' learning (Barker & Camarata, 1998). It is also concerned with the so-called "real spirit" that exists in an organisation. The discipline of personal mastery emphasises the need for an employee to pursue personal improvements. Individuals should choose those activities or accusations that bring out thrill and utilise the utmost potential. But to work at full potential, a person should recognise his or her weakness and strengths.

The discipline of personal mastery also urges individuals, who in this case may be managers and other organisational employees to train their minds to handle complex situations through exposure. Activities aiming at developing this aspect of problem-solving should be encouraged to eliminate repeating mistakes by instilling in employees that they can tackle the challenges they may be facing. According to (Hamann et al., 2013) the best way that an organisation can nature personal mastery is by allocating employees the tasks that are in line with their best capabilities.

2.2.3 Mental Models

The mental models are also important for a learning organisation since they enable an organisation to grow and have a vision of what they want to achieve. Mental models caused educational conversations in the firms which help in the idea and opinion sharing (Dervitsiotis, 1998).

2.2.4 Shared Vision

Also, building a shared vision is another dimension of a learning organisation that enables the creation and development of goals, objectives, and vision through positive interactions (Senge, 2014). The primary participants of the interactions are the organisational employees. A shared vision should be developed early so that a common understanding is created through conversations. Shared vision means that the members should identify what they want to create together. Tools needed by leaders include values alignment, concept shifting, and positive visioning. Building a shared vision creates organisational performance through unity in the working of the whole firm in one direction (Senge, 2004).

2.2.5 Team Learning

In addition to building a shared vision, there is also a need to develop on another dimension, namely; team learning. Team learning brings together "personal mastery" and "shared vision". Team learning in an organisation prevents employees to shun from internal rivalry. Employees hence work as a team and are free to share ideas with others freely. According to (Fillion, Koffi & Ekionea, 2015) such an organisation creates an environment that leads to open dialogues and forgiveness. Team learning, therefore, happens in an organisation when teams start thinking in similar ways by sharing skills, knowledge, insights, and experience as a way to do things better (Senge, 2014).

2.3 Empirical Review

It is believed that organisational learning creates the best conditions where employees can continually expand their capacity to perform, nurture new thinking patterns and set their aspirations free in the quest to reach a bigger vision (Senge, 1990; 2014). The five disciplines conceptualised by Senge provide a very useful framework in which to understand the inner workings of the organisation, and how it approaches learning-centered leadership and how improvement is based on language, principles, concepts, and values of learning organisations (Senge, 2014). However, for an organisation to become a learning organisation, many other criteria are required to be fulfilled.

As Public universities strive to become effective learning organisations, they need to develop along seven dimensions as it is argued in Marsick and Watkins (2003). The present research will look at the dimensions of learning organisation namely; *continuous learning, inquiry and dialogue, team learning and collaboration, embedded system, Empowerment, system connection, and strategic leadership*.

2.3.1 Dimensions of the Learning Organization

2.3.1.1 Continuous Learning

Continuous learning in an organisation strives to create constant learning opportunities for all members from the top management team to the employees (Hung et al., 2010). It is also enhancing the capabilities of the employees to meet the set objectives. The dimension also benefits the individual employee because they become better placed in the competitive job market. According to Hung et al. (2010), continuous learning is a good opportunity for individuals to acquire a better skill set. It also aids in the retention of employees because of the process of learning and developing them within offers the organisation the skills needed without recruiting new employees. It has been argued that continuous learning creates the advantage of creating more productivity due to effectiveness, innovations, and competitiveness aspects. In the modern world, there is a need for an organisation to remain in business and show constant growth; this demand can only be met by continuous learning. A 2016 study conducted by Ponnuswamy & Manohar revealed that the organisational performance of public universities was highly correlated to culture of organisational learning. There are several ways of creating learning opportunities in an organisation; this includes the development of: research grants; training programs, and scholarships to academics (Ponnuswamy & Manohar, 2016; Othayman et al., 2020).

2.3.1.2 Inquiry and Dialogue

Inquiry and dialogue entail the knowledge acquiring by individuals from others. Employees in an organisation with this dimension are good listeners and take the views of others with intent (Hussein et al., 2014). It is important to cultivate the spirit of inquiry as a way of enhancing the ability to understand basic beliefs and assumptions. A setting that is informal, and without distractions, creates opportunities for people to identify commonalities between themselves.

Hamann et al. (2013) found that there is a positive effect of learning in an organisation on *organisational performance*. The research revealed that *inquiry and dialogue* were two significant factors in that they cause efficient communication and system thinking and the organisation is more likely to encourage open communications. In such a firm, communication is a two-way process which creates ground for opinion and idea sharing as well as innovation. In a different but related research (Laeque & Babar, 2015), studied in hospitals which used certain dimensions of the learning organisation. Results showed that *inquiry and dialogue* enabled the staff to take more risks, experiment new things, and enquire more freely. The staff team was also intended to feedback from patients and respond appropriately. When this is combined with continuous learning, it leads employees that not only are eager to learn but are willing to explore, question the status quo, and come up with innovative ideas. Organisations are frequently faced with various challenges that put the managers in complex situations that need dialogue. To establish a common understanding in such circumstances, robust inquiry and dialogue is the best action for the business (Hamann et al., 2013).

2.3.1.3 Team Learning and Collaboration

A so-called "intelligence of a team" that is well structured surpasses that of an individual several folds (Hamann, et al., 2013) as can be seen in areas such as sports, science, and arts. This is also true for organisations where

staff members work as a team. As a dimension of a learning organisation, team learning is concerned with the practice of team members coming up with ideas and skills as well as a way to share them with others. When team learning is combined with collaboration, the members see and treat each other as colleagues. As such, the employees at the bottom of the organisational hierarchy should feel free to share ideas and opinions with those at the executive level.

Working together as a team enhances the chances and capability of achieving the organisational objectives. Organisations should preserve the knowledge created during teamwork and collaboration. Although the team members may be at different levels of learning, support, and trust in each other leads to better team performance (Yang et al., 2004). According to Marsick and Watkins (2003) the conditions in an organisation influence team learning and dictates whether team learning becomes organisational learning.

2.3.1.4 Embedded System

This notion stresses the importance of capturing knowledge learned, maintaining, and sharing it through all levels of management in the organisation (Yang et al., 2004). Organisations usually come up with means of storing the learned skill and practices because they help them manoeuvre during time of turbulence in the market and high employee turnover. A system of sharing captures knowledge is needed when needs arise to generate and maintain data to make an organisation better. A learning organisation has a culture of putting together an account of information that can easily be accessed and retrieved when needed. The retrieved information can then be disbursed and spread within the organisation, especially to the new members joining the organisation (Marsick & Watkin, 2003).

An embedded system should utilise low technology systems which makes it efficient for analysis through focused group discussions. The organisation with an embedded system comes up with systems of measuring the gaps between the current and expected results. Also, time and resources spent during the learning lessons of employees are measured. Such an embedded system is paramount in the continuity of a learning culture and performance in the organisation (Sharifirad, 2011).

2.3.1.5 Employee Empowerment

The Empowerment of the staff is another dimension of learning organisation which focuses on making employee yearn to attain the shared or collective organisational vision. This discipline's success is however dependent on the use of collaborative practices. Employee empowerment is described by some researchers as a course by which the rights and the will of individuals are increased through cooperation, training, sharing, and help. But according to Field (1997), the term employee empowerment has undergone several reviews and changes in line with the change and competition in the global job market. Employee engagement can be broken down into four aspects; (1) the performance of the enterprise, (2) the power to make decisions, (3) the information on performance, and (4) the actual enablement of an understanding of performance and contributions (Fernandez & Moldogaziev, 2013). Marsick and Watkin (2003) put forward the argument that having control of one's motivation, cognition and personality is Empowerment. It is seen in the lines of capacity to effect changes and self-worth. Employee empowerment, especially towards a common vision, leads to commitment in the organisation (Watkin & Marsick, 2003).

2.3.1.6 System Connection

System connection is the sixth dimension among the dimensions of learning organisation as drafted by Marsick and Watkin (2003). According to Senge (1990), organisations usually suffers from inertia and realises how hard it is to keep pace with a changing environment. As stated by Carter and Greer (2013) the more time an organisation takes to flow with the market changes, the fewer the option is for it to regain back its desired position. Having an effective system connection would help the organisation to capture and enhance organisation capability to be successful.

Oh (2019) stated that a system connection also had a mediating and positive impact on the relationship between *Empowerment, continuous learning* and *organisational performance*. An *effective system connection* also is considered as a base to clarify the bigger picture of the organisation (Sayed & Edgar, 2019). This includes giving employees support, time, identification of skills for future tasks and open discussions to identify mistakes and reward for learning.

2.3.1.7 Strategic Leadership

Strategic leadership increase the share of decision-making from the top of the hierarchy to lower ranks. The effect is that everyone sees the need to connect to those on top or lower levels of management and in the process form relationship that are both authentic and lasting (Marsic & Watkin, 2003).

The principles of strategic leadership should help an organisation to shift capabilities and resources to create a strategic advantage to the organisation against external completion and changing markets. Existing research

indicate that strategic leadership can change the culture of an organisation, its structure, and system of reward to foster performance. Strategic leadership is also associated with enhancing the creation of systems for capturing information and boost learning in an organisation. It allows for the spread of information within an institution as well as the creation of new knowledge (Marsic & Watkin, 2003; Sharifirad, 2011).

2.4 Measuring Organisational Performance in HE Organisations

Measuring performance is a process that entails the collection, analysing and reporting data of a component, group or organisation (Marlow et al., 2018). Measuring organisational performance not only in universities as well as other organisations creates a challenge because it is multidimensional theoretical construct in nature. As such, there is no single operational measure that a researcher can use as a definite solution. The multi-dimensional aspect of the variable means that, its unclear whether the results should be portrayed for unitary or as multiple purpose, which affects reliability. However, researchers (Goyal, 2013; Phusavat et al., 2011) agreed that the best measures of measuring organisational performance should be in terms of financial measures such as return on assets, return on equity, return on asset etc. Also, organisational performance can also involve qualitative measures which include research, competitiveness, resource generation, knowledge creation, teaching and learning (Soon & Zainol, 2011). According Salau et al. (2016), several other duties and activities are expected from universities such as mentoring, community service, teaching, routine administration and assessment.

Another important aspect that is fundamental in universities organisational performance is research. Research is defined as the systematic study and investigation of sources and material with the goals of establishing facts and making conclusions. According to Shepherd & Gruber (2020), research is a process of generating new insights and knowledge or unlocking new knowledge. In the field of academics, research is regarded as a key performance indicator. Although students face many emerging challenges, it is recommended that the management and authorities support universities in conducting and publishing research projects. Research goes hand in hand with teaching and as (Onwuegbuzie et al., 2007), points out, it is the sharing of knowledge and skills by persons in authority, teachers, in a form that is understandable and relevant to students. The teacher needs to acquire skills which are expressed as micro behaviors that make teaching effective. Community service is expressed as the system for giving support to nurture and sustain the lives of families, groups and individuals to realise their potential for the well-being and development of the society. There are many activities that an organisation can undertake to improve the lives of the people around them (Karakas, 2010). As mentioned earlier the researcher chose to explore the university performance using the qualitative measures including knowledge creation and research.

2.5 Conceptual Framework

The conceptual framework of the present paper emphasises the relationship that exists between dependent (performance measures) and independent variables. Organisational performance of the selected public universities forms the depended variables while independent variables entail the dimensions of a learning organisation; continuous learning, inquiry and dialogue, team learning and collaboration, embedded system, Empowerment, system connection and strategic leadership based on the impact dimensions of learning organisations developed by Marsick and Watkin (2003).

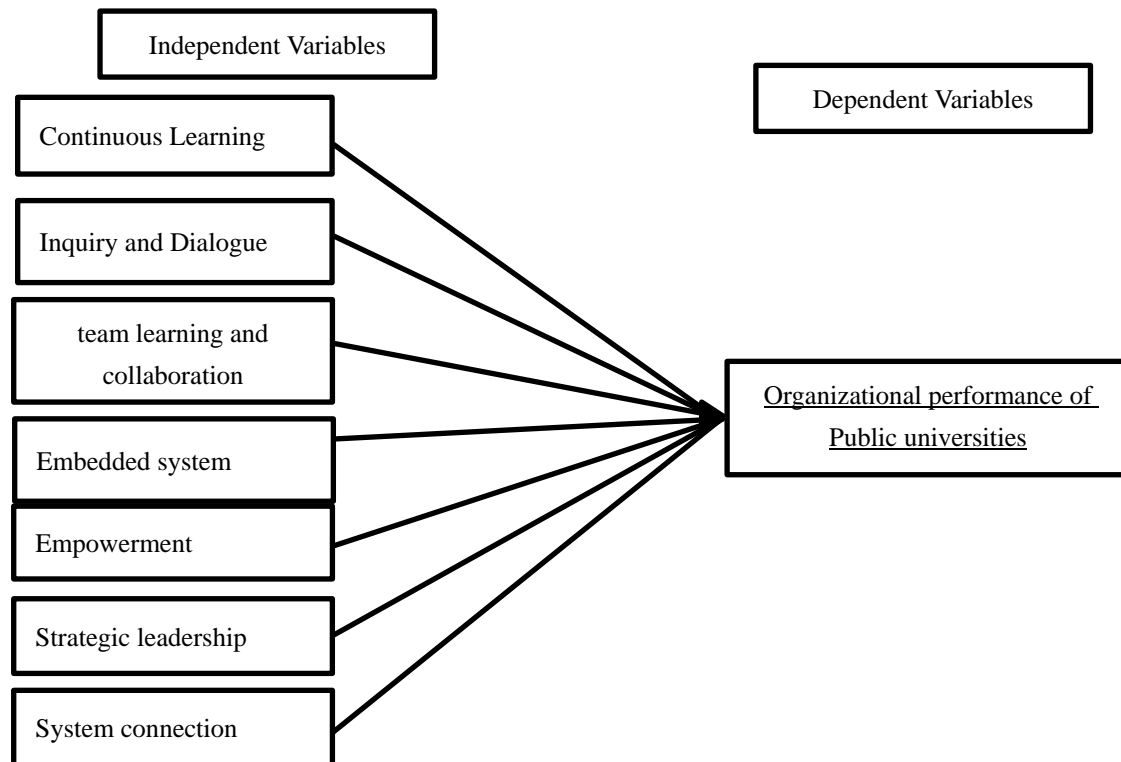


Figure 1. The conceptual framework

The aim of this paper is to address the direction of higher education institution in Saudi Arabia becoming a learning organisation through assessing the application of dimensions of learning organisation in public universities, assessing dimensions of learning organisation which are associated with organisation performance in the institutions under study and to assess the extent to which the application of learning organisation is affected by demographic variables.

2.6 Research Questions

In line with the objectives, the study sought to answer the following questions

- i. To what extent are the dimensions of learning organisation used in public universities in KSA?
- ii. What are the dimensions of a learning organisation that affect organisational performance in universities?
- iii. To what extent is the application of learning organisation affected by demographic variables?

3. Research Methodology

According to Fleiss, Levin, and Paik (2013), a sample is the demonstrative section of the whole population whereas how that section is single out is called the sampling technique. To minimise sampling error and come up with a suitable representative, the paper employed a stratified random sampling technique. The technique involves two processes where the target population is divided into strata and then elements are picked from each of the strata by simple random sampling. We used a close-ended questionnaire. The questionnaire which was adopted from Watkins & Marsick (2003) contained 28 questions which had cover the different variables of the study. All the answers provided by the participants were measured on a similar Likert scale ranging from 1 to 6. The corresponding answer for the seven-learning dimensions translate to "Strongly disagree" up to "Strongly agree", whereas for the organisation performance translate to "Almost never" up to "Almost always". Questionnaires were sent through emails to the target population. The researchers distributed 976 questionnaires of which 840 were returned (response rate of 86%). For each group of questions, the average of the answers was computed for further analysis. The average is assumed to have captured the information of each learning dimension of the organisation performance.

3.1 Research Reliability and validity

A Cronbach alpha score test on Likert scale was used to check the reliability (or internal consistency) of this

research. It resulted in an overall Cronbach alpha of 0.972; a value deemed acceptable Bland & Althman, 1997. To ensure the validity of the research tools, this study ensured the creation of objective questions for the questionnaire. We were careful in covering all the variables (OP, demographics) as well as using related questions. We pretested our questionnaire in a pilot study where ten questionnaires were sent to experts in the field and some potential participant of the targeted sample to ensure that all variables and related questions were included. Later, errors and omissions were corrected to ensure that the questionnaire was valid. We also explored the construct validity was used to determine the link of the instrument to the theoretical assumptions and concepts (Kim, Egan, & Tolson, 2015)

Table 1. Cronbach alpha values for the overall questionnaire and each variables

Overall questionnaire	Continuous learning	Inquiry and Dialogue	Team learning and collaboration	Embedded system	Empowerment	System connection	Strategic leadership	Organisational performance
0.972	0.777	0.730	0.871	0.925	0.911	0.872	0.910	0.936

3.2 Data Analysis

The data collected for this paper were analysed using STATA. We used multiple regression analyses to establish the relationship between how the dimensions of learning organisation affect the organisational performance. We also used multi-way ANOVA to characterise how demographic variables affected learning dimensions and organisational performance (Babbie et al., 2018).

4. Results

4.1 Descriptive Statistics

The present research sampled 840 employees (533 males and 307 females) from 20 universities across all regions of Saudi Arabia. Figure 2 presents the percentage allocation of the respondents in the universities. The sample size was large enough to provide confidence as for the conclusions drawn and the geographical spread of the respondents provides strong evidence to expand the conclusions at a Saudi national level. Table 2 shows the descriptive statistics of the research sample.

Table 2. Descriptive statistics for the categorical variables

Gender	Frequencies (%)	Age	Frequencies (%)	Education	Frequencies (%)	Work experience	Frequencies (%)	Administrative position	Frequencies (%)
Male	533 (53.5)	21-30	222 (26.4)	Bachelor degree	301 (35.8)	>1 years	55 (6.5)	Dean	42 (5.0)
Female	307 (36.5)	31-40	335 (39.9)	Master degree	240 (28.5)	1-3 years	106 (12.6)	Vice Dean	45 (5.4)
		41-50	223 (26.5)	PhD	254 (30.2)	3-5 years	97 (11.5)	Department chairman	40 (4.8)
		51-60	55 (6.5)	other	45 (5.4)	>5 years	225 (26.8)	Centre director	33 (3.9)
		≥61	5 (0.6)			>10 years	357 (42.5)	Administrator or manager	88 (10.5)
								Academic staff	380 (45.2)
								Non-academic staff	212 (25.2)

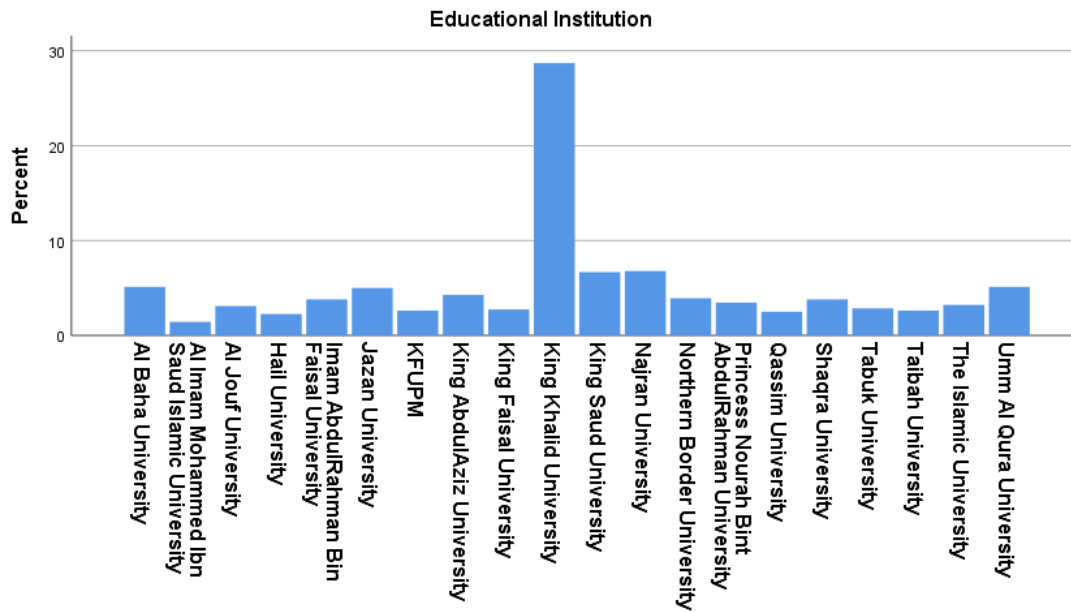


Figure 2. Allocation of employees in the universities under investigation (in %)

4.2 Inferential Statistics

Research question (i) To what degree are Saudi Arabia's public universities adopting the various dimensions of an ideal "learning organisation"?

The average and its associated upper- and lower-bound 95% confidence interval are presented in Table 2 and Figure 2 visualises the confidence intervals. All averages were below 4 and no confidence intervals ever include 4. If the minimum level was set to 4, then clearly all learning dimensions and the organisation performance tend not to be learning originations. Regardless of the interpretation of value 4, the conclusion is that there is room for improvement. The *Empowerment* and *Embedded system* have the lowest score values, and their averages and confidence intervals are similar. Overall, the average values were not high, indicating that work needs to be done to effectively improve these numbers.

Table 2. Means And 95% Confidence Intervals of the Learning Dimension and Of The organisation performance

	Mean	95% Confidence Interval		Degree of adaptation of the learning dimensions
		Lower	Upper	
Continuous learning	3.64	3.54	3.72	0.60
Inquiry and dialogue	3.88	3.79	3.95	0.64
Team learning and collaboration	3.71	3.62	3.79	0.62
Embedded system	3.57	3.47	3.66	0.59
Empowerment	3.59	3.49	3.68	0.59
System connection	3.78	3.66	3.85	0.63
Strategic leadership	3.75	3.66	3.85	0.62

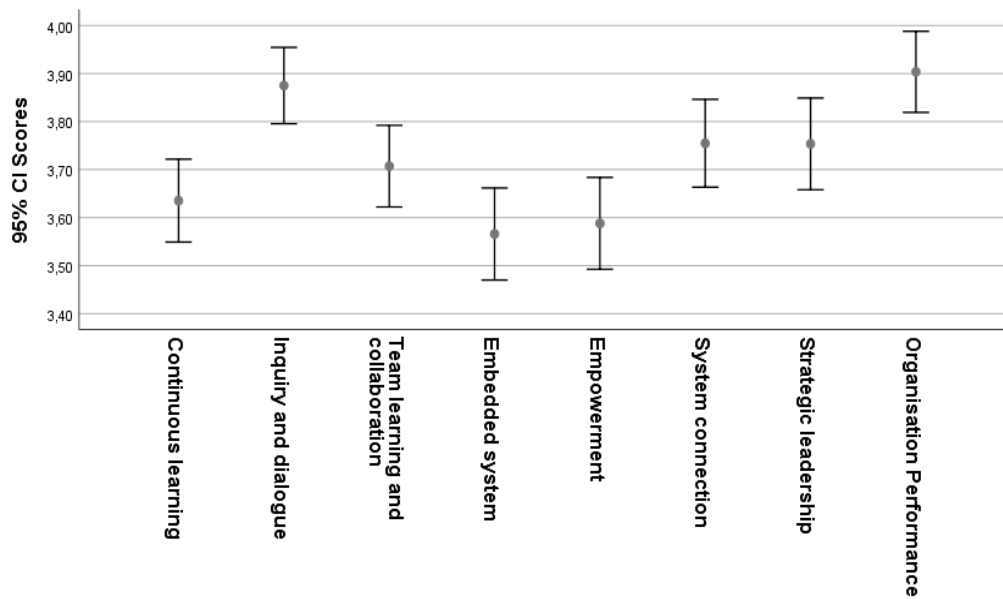


Figure 3. Mean scores for the seven learning dimension and the organisation performance (error bars represent the 95th confidence intervals)

Research question (ii) What dimensions of learning organisation are associated with organisation performance in the institutions under study?

Pearson's correlations and linear regressions were employed to answer the second question. The correlation of the organisation performance with each of the seven "learning dimensions has been tested. All correlations between the organisation performance and the dimensions of learning organisation were strong (all $.757 > rs > .531$) and statistically significant (all $ps < .001$), meaning that there is a linear relationship between the organisation performance and each dimension. A second step was to identify the effect of each learning dimension on the organisation performance when the former was collectively examined. A *backward selection* method was at first applied to identify the learning dimensions that are statistically significantly related with the *organisational performance* and a regression model was fitted.

The *backward selection* method estimated that the *embedded system* learning dimension did not contribute significantly to the modelling of the organisation performance and excluded this dimension. The linear regression of organisation performance on the six other learning dimensions is presented in Table 3. All ps of the regression coefficients were statistically significant at the 5% level. The B coefficient of the *continuous learning* (0.149) was higher than the coefficient of the *Team learning and collaboration* (0.160). Yet, the former was statistically more significant than the latter. The t-statistic of the *Continuous learning* was 4.432, while the t-statistic of the *Team Learning and Collaboration* was 4.255. On the other hand, the *Strategic Leadership* had the highest effect on *organisation performance* and was also the most important learning dimension. This learning dimension was found to be the most correlated with the organisation performance.

We computed a Variance Inflation Factor (VIF) to measure the strength of the inter-relationships between learning dimensions. Values higher than 10, would indicate a problematic linear regression model and the relevant learning dimensions would have to be removed. In this case, the highest VIF value was less than 5, hence all learning dimensions seem to conform with this condition.

All learning dimensions have a positive effect on the organisation performance, except for the *Inquiry and dialogue*. However, this variable was not as statistically significant as the other ones and could be eliminated from the model without significant losses. The R^2 of the regression model is 0.653. This means, that 65.3% of the total variation of the organisation performance is explained by the model indicating that the fit of the model is satisfactory.

We fitted the actual values against the residuals to explore possible violation of the assumption of residuals homoscedasticity and found none.

Table 3. Linear regression of organisation performance on six learning dimensions (backward selection method)

	B	Std. Error	t-statistic	p	VIF
--	---	------------	-------------	---	-----

(Constant)	0.898	0.093	9.705	0.000	
Continuous learning	0.149	0.034	4.432	0.000	2.822
Inquiry and dialogue	-0.070	0.033	-2.103	0.036	2.361
Team learning and collab.	0.160	0.037	4.255	0.000	3.416
Empowerment	0.136	0.035	3.838	0.000	3.867
System connection	0.143	0.041	3.532	0.000	4.645
Strategic leadership	0.298	0.035	8.536	0.000	3.739

Research question (iii) To what extent the application of "learning organisation" is affected by demographic variables?

The last research question seeks to identify the effect of the demographic variables on the learning dimensions and the organisation performance. A Multi-way ANOVA was carried out.

Continuous learning:

Education level and work experience were the two key factors statistically significantly associated with Continuous learning (respectively $F(3, 839) = 5.350, p < 0.001$; $F(4, 839) = 3.067, p < 0.016$). However, Age, Gender and Administrative position were not significantly associated (all $F < 1.9$, all $ps = NS$). The Levene's test for homoscedasticity was not significant.

Inquiry and Dialogue:

The education level ($F(3, 839) = 5.195, p = 0.001$), the work experience ($F(4, 839) = 3.335, p = 0.01$) and the administrator position ($F(6, 839) = 3.204, p = 0.004$) were the three key factors statistically significantly associated with the Inquiry and dialogue. The Levene's test for homoscedasticity was not significant.

Team learning and collaboration:

The education level ($F(3, 839) = 7.112, p < 0.001$) and the administrator position ($F(6, 839) = 2.136, p = 0.047$) were the two key factors statistically significantly associated with the Team learning and collaboration. The Levene's test was rejected ($F(235, 604) = 1.233, p = 0.024$) suggesting heteroscedasticity in the residuals and results should be treated with caution.

Embedded system:

The education level ($F(3, 839) = 9.284, p < 0.001$) and the administrator position ($F(6, 839) = 2.567, p = 0.018$) were the two key factors statistically significantly associated with the Embedded system. The Levene's test for homoscedasticity was not significant.

Empowerment:

The education level ($F(3, 839) = 5.202, p = 0.001$) and the administrator position ($F(6, 839) = 6.375, p = 0.006$) were the two key factors statistically significantly associated with the Empowerment. The Levene's test for homoscedasticity was not significant.

System connection:

The education level ($F(3, 839) = 3.975, p = 0.008$) and the administrator position ($F(6, 839) = 3.144, p = 0.005$) were the two key factors statistically significantly associated with the System connection. The Levene's test for homoscedasticity was not significant.

Strategic leadership:

The education level ($F(3, 839) = 7.923, p < 0.001$) and the administrator position ($F(6, 839) = 2.455, p = 0.023$) were the two key factors statistically significantly associated with the Strategic leadership. The Levene's test for homoscedasticity was not significant.

Organisation performance:

The only statistically significant demographic variable was the education level ($F(3, 839) = 3.157, p = 0.024$). Practically this means, that neither gender, age, work experience, or the administrator position differentiates the organisation performance of the employees. It is their education level that shows differences in the organisation performance. The education level was then further investigated and revealed that the organisation performance of the employees with PhD was statistically higher than the organisation performance of the employees with Master's degree. The only statistically significant difference in the organisation performance was detected between the PhD and Master holders. PhD holders had an average organisation performance of 0.335 higher than the average organisation performance of the Master holders.

The Levene's test for homoscedasticity was not significant ($F(235, 604) < 0.05$).

Table 4 summarises the important demographic factors for each learning dimension and organisation

performance. Education level is always present, administrator position is important for most cases, whereas work experience was significant only two times.

Table 4. Demographic variables statistically associated with each learning dimensions and organisation performance

	<i>Education level</i>	<i>Work experience</i>	<i>Administrator position</i>
<i>Continuous learning</i>	F(3, 839)=5.350, $p < 0.001$	F(4, 839)=3.067, $p < 0.016$	NS
<i>Inquiry and dialogue</i>	F(3, 839)=5.195, $p = 0.001$	F(4, 839)=3.335, $p = 0.01$	F(6, 839)=3.204, $p = 0.004$
<i>Team learning and collaboration</i>	F(3, 839)=7.112, $p < 0.001$	NS	F(6, 839)=2.136, $p = 0.047$
<i>Embedded system</i>	F(3, 839)=9.284, $p < 0.001$	NS	F(6, 839)=2.567, $p = 0.018$
<i>Empowerment</i>	F(3, 839)=5.202, $p = 0.001$	NS	F(6, 839)=6.375, $p = 0.006$
<i>System connection</i>	F(3, 839)=3.975, $p = 0.008$	NS	F(6, 839)=3.144, $p = 0.005$
<i>Strategic leadership</i>	F(3, 839) = 7.923, $p < 0.001$	NS	F(6, 839)=2.455, $p = 0.023$
<i>Organisation performance</i>	F(3, 839)=3.157, $p = 0.024$	NS	NS

5. Discussion

The present results emphasize that the learning dimensions of the learning organisation framework are not utilised, at sufficient levels, in public universities in Saudi Arabia. The relationships between most learning organisations and the organisation performance are highly positive and highly statistically significant. Finally, the education level seems to be the only demographic factor that affects all learning dimensions and the organisation performance. The administrator position is a key demographic factor for most learning dimension, but work experience seems to affect significantly only two learning dimensions.

To what degree are Saudi Arabia's public universities adopting the various dimensions of an ideal "learning organisation"?

The variables under investigation include the seven dimensions of learning organisation and *organisational performance*. The results showed that the dimensions evidencing the lowest mean scores were *Empowerment* and *embedded system* that is 3.59 and 3.57 respectively. The fact that *embedded system* held the lowest mean shows that staff members feel that their institutions are not doing enough to capture, maintain and share the knowledge learned. As suggested by Watkins and Marsick (2003) this is a worrying trend and the *embedded system dimension* is considered a point of reference to help the organisation to manoeuvre at times of high employees' turnover and market turbulences. In order to become "learning organisations", HE institutions should promote the culture of sharing knowledge throughout the organisation that would help to have an effective embedded system.

On the other hand, *organisational performance* showed the highest mean score of 3.90. Indeed, the data in Table 1 indicate that members of staff are not satisfied with the level of application of dimensions of learning organisation in their respective universities. The analyses of the means at 95% confidence level across other variables and factors showed a similar trend of low figures. Variations figures were higher in oldest participants (age over 60) with the lowest being in members between 31 to 40 years. Employees with experience in the job of less than 12 months had the highest scores as compared to employees with more experience. This therefore shows that duration of work experience also has an impact on *organisational performance*. Employees with more experience make decision that impact performance in the institutions as compared to those with less experience. This is in line with finding by Akhtar et al (2011) that staff members in universities look up to their managers before making major decisions instead of relying on their own knowledge.

What dimensions of the learning organisation framework are associated with organisation performance?

The present research shows that all the dimension of the learning organisation framework, apart from the *inquiry and dialogue* dimension had a positive effect on the performance of the universities. As explained by Hussein *et al.* (2014), *inquiry and dialogue* entail the acquisition of knowledge from others. This dimension was found to have the least effect on *organisational performance* of the studied universities in Saudi Arabia. This shows that HE institutions are poor in cultivating the spirit of acquiring knowledge among the staff members.

The current research found that *system connection* had the most substantial relationship with *organisational performance* (Variance Inflation Factor -VIF = 4.645) and universities that most frequently encouraged staff teams to think of opportunities and problems from a global perspective also score higher in organisational performance. In addition, data show that the institutions encourage the employees to enquire and look for solutions internally before they consider outsourcing.

System connection is the sixth dimension among the dimensions of learning organisation as drafted by Watkin

and Marsick (2003). The findings in this paper show that most institutions have established strong connections with their environment. According to Senge (1990), organisations usually suffers from inertia and realises how hard it is to keep pace with a changing environment. As stated by Carter and Greer (2013) the more time an organisation takes to flow with the market changes, the fewer the option is for it to regain back its desired position. Having an effective system connection would help the organisation to capture and enhance organisation capability to be successful.

The present findings are in agreement with the research by Oh (2019) which found out that a *system connection* also had a mediating and positive impact on the relationship between *Empowerment, continuous learning* and *organisational performance*. An *effective system connection* also is considered as a base to clarify the bigger picture of the organisation (Sayed & Edgar, 2019). This includes giving employees support, time, identification of skills for future tasks and open discussions to identify mistakes and reward for learning. The impact of system connection in the organisations like the public universities can be enhanced through activities such as on-site case study, seminars, trainings which help to enhance the organisation performance trough understanding main objectives of the organisation (Antonacopoulou et al., 2019; Sayed & Edgar, 2019).

To what extent the application of "learning organisation" is affected by demographic variables?

The present results indicates that the *education level* attained the respondents is consistently the factor that was significant with all the dimension of organisational learning under investigation and *organisational performance*. It can be seen that employees holding PhD had higher statistical significance with all the dimension of organisational learning and *organisational performance* compared to those with master's degree.

The impact of education level on *organisational performance* is explained by Cappelli (2000) who argue that learned individuals have gained more cognitive capacity which they apply in the workplace. Senge (1994) adds that learning in organisations enhances strategic thinking and unity of aims.

According to Bhaskar & Mishra (2017), most organisations use educational levels as the basis for selecting candidates with the skills needed in the organisation. Highly educated staff members are more likely to contribute more efficiently to noncore activities in the workplace as well.

A study assessing the trend of education in the US found that individuals completing both high school and college education had drastically improved from 1980 to 2006 by around 28%. This leads to evidenced positive outcome and positive career outcomes including job mobility, development opportunities, increased job promotions and better salary levels. (Cappelli, 2000)

The education levels of employees have also been found to contribute significantly to organisational performance especially in times of turbulences. Highly educated workers have the tendency to be more creative in their behaviors at such times as compared to less educated workers. Another reason why education levels have positive correlation to *organisational performance* is because the highly education employees tend to engage in fewer counter-productive actions. Counterproductive actions and behaviors in the workplace include absenteeism, substance use in the workplace and work aggression.

6. Conclusion and Recommendations

The present research focused on the institutions of higher education in the Kingdom of Saudi Arabia. Universities are known to be the incubators of knowledge and the spearhead innovation and prosperity in a nation. The study findings provided insights of how the application of learning dimensions can lead to performance in the universities. Generally the learning organisation dimensions among the studied universities are moderate. The data on the dimensions studied shows that learning organisation is not applied to satisfactory levels.

As the literature review and study findings show, it is becoming increasingly important for institutions of higher education which are like many other modern organisations, to adopt learning orientation because it will lead to organisational success. The learning in an institution should not be expected to readily and naturally happen; therefore, efforts should be put into place to make it as a culture in the organisation. Parallel to other organisations, public institutions should implement learning organisations practices to ensure that set objectives are achieved. As has been discussed above, many studies recognise that learning organisations have a positive impact on organisational growth and performance.

Human resource developers in organisations are usually responsible for promoting opportunities for continuous learning. Organisational learning is largely important in the current job market where the individuals regularly hop between jobs and reserve what they know with the mentality that sharing what they know might cause a downfall to their success. It is the hope of the researcher that these study findings will push to identify that is not sufficient to rely on the continuous learning of a few individuals in the executive without building the institutions capacity to capture, inspire and share that knowledge.

It is recommended that public universities go back to the drawing board and embrace the changes which will steer the institutions toward becoming an ideal learning organisation. Hence, the institutions should introduce change agents in different departments to examine the specific needs of the organisation and then accompany the organisation through the transformative change.

This present research identified that individual with higher educational levels tended to have a better understanding of the mechanisms leading to the establishment of a "learning organisation" than those less educated. In order to counteract this tendency, human resource managers should promote a comprehensive continuous learning policy within all job roles in the institution. This learning should then be captured and integrated into the existing structures and practices in ways that it can be easily accessed and shared by all members of the institution.

The various tools provided by the learning organisation framework can only be successfully implemented in any organisation if leaders and managers support them. In agreement with this Marsic & Watkin (2003) and Sharifirad (2011) stated that strategic leadership acts as the mediators between what can be done and what is actually executed. It can be said that strategic leadership is a major driver for the organisations to determine their needs to use technology, information processing, number of individuals learning new skills and quality of services and programs to be in a competitive position. Learning programs therefore have to be supported by the strategic leadership so that the intended effects can be achieved.

References

- Akhtar, S., Arif, A., Rubi, E., & Naveed, S. (2011). Impact of Organizational Learning on Organizational Performance: Study of Higher Education Institutes. *International Journal of Academic Research*, 3(5), 327-331.
- Al-Hemyari, Z. A. (2019). A knowledge management model for enhancing quality and performance of higher education institutions: insights from Oman. *International Journal of Quality and Innovation*, 4(1-2), 99-119. <https://doi.org/10.1504/IJQI.2019.101435>
- Alkhatlan, K., Gately, D., & Javid, M. (2014). Analysis of Saudi Arabia's behavior within OPEC and the world oil market. *Energy Policy*, 64, 209-225. <https://doi.org/10.1016/j.enpol.2013.09.030>
- Al-Musali, M. A. K., & Ku Ismail, K. N. I. (2014). Intellectual capital and its effect on financial performance of banks: Evidence from Saudi Arabia. *Procedia-Social and Behavioral Sciences*, 164, 201-207. <https://doi.org/10.1016/j.sbspro.2014.11.068>
- Al-shehry, A. M. (2009). *Transformation towards e-government in The Kingdom of Saudi Arabia: technological and organisational perspectives*.
- Alshuwaikhat, H. M., Adenle, Y. A., & Saghir, B. (2016). Sustainability assessment of higher education institutions in Saudi Arabia. *Sustainability*, 8(8), 750. <https://doi.org/10.3390/su8080750>
- Altbach, P., Reisberg, L., Salmi, J., & Froumin, I. (Eds.). (2018). *Accelerated universities: ideas and money combine to build academic excellence*. BRILL. <https://doi.org/10.1163/9789004366107>
- Antonacopoulou, E. P., Moldjord, C., Steiro, T. J., & Stokkeland, C. (2019). The New "learning organisation". *The Learning Organization*. <https://doi.org/10.1108/TLO-10-2018-0159>
- Argyris, C., Schon, D.A. (2011). *Organizational Learning*. Addison-Wesley.
- Babbie, E., Wagner III, W. E., & Zaino, J. (2018). *Adventures in social research: Data analysis using IBM SPSS statistics*. Sage Publications.
- Barker, R. T., & Camarata, M. R. (1998). The role of communication in creating and maintaining a learning organisation: Preconditions, indicators, and disciplines. *The Journal of Business Communication* (1973), 35(4), 443-467. <https://doi.org/10.1177/002194369803500402>
- Bhaskar, A. U., & Mishra, B. (2017). Exploring relationship between learning organisations dimensions and organisational performance. *International Journal of Emerging Markets*. <https://doi.org/10.1108/IJoEM-01-2016-0026>
- Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *Bmj*, 314(7080), 572. <https://doi.org/10.1136/bmj.314.7080.572>
- Boguslavskii, M. V., & Neborskii, Y. V. (2016). Development of the university education in the context of globalisation. In *SHS Web of Conferences* (Vol. 29, p. 01011). EDP Sciences. <https://doi.org/10.1051/shsconf/20162901011>
- Cappelli, P. (2000). *Examining the incidence of downsizing and its effect on establishment performance* (No. w7742). National bureau of economic research. <https://doi.org/10.3386/w7742>

- Carter, S. M., & Greer, C. R. (2013). Strategic Leadership: Values, Styles, and Organizational Performance. *Journal of Leadership & Organizational Studies*, 20(4), 375-393. <https://doi.org/10.1177/1548051812471724>
- Cosgrove, W. J., & Loucks, D. P. (2015). Water management: Current and future challenges and research directions. *Water Resources Research*, 51(6), 4823-4839. <https://doi.org/10.1002/2014WR016869>
- Dervitsiotis, K. N. (1998). The challenge of managing organisational change: Exploring the relationship of re-engineering, developing learning organisations and total quality management. *Total Quality Management*, 9(1), 109-122. <https://doi.org/10.1080/0954412989306>
- Fernandez, S., & Moldogaziev, T. (2013). Employee empowerment, employee attitudes, and performance: Testing a causal model. *Public Administration Review*, 73(3), 490-506. <https://doi.org/10.1111/puar.12049>
- Field, L. (1997). Impediments to Empowerment and learning within organisations. *The Learning Organization*. <https://doi.org/10.1108/09696479710170842>
- Fillion, G., Koffi, V., & Ekionea, J. P. B. (2015). Peter Senge's learning organisation: A critical view and the addition of some new concepts to actualise theory and practice. *Journal of Organizational Culture, Communications and Conflict*, 19(3), 73.
- Fleiss, J. L., Levin, B., & Paik, M. C. (2013). *Statistical methods for rates and proportions*. John Wiley & Sons.
- Geiger, R. L. (2019). *American Higher Education Since World War II: A History* (Vol. 116). Princeton University Press. <https://doi.org/10.2307/j.ctv9hvtbz>
- Goh, S. C. (1998). Toward a learning organisation: The strategic building blocks. *SAM Advanced Management Journal*, 63, 15-22.
- Goldratt, E. M. (1990). *Theory of constraints*. Croton-on-Hudson: North River.
- Goyal, A. M. (2013). Impact of capital structure on performance of listed public sector banks in India. *International journal of business and management invention*, 2(10), 35-43.
- Hamann, P. M., Schiemann, F., Bellora, L., & Guenther, T. W. (2013). Exploring the dimensions of organisational performance: A construct validity study. *Organizational Research Methods*, 16(1), 67-87. <https://doi.org/10.1177/1094428112470007>
- Hazelkorn, E. (2013). World-class universities or world-class systems? Rankings and higher education policy choices. *Rankings and accountability in higher education: Uses and misuses*, 71-94.
- Hilal, K. T., Scott, S., & Maadad, N. (2015). The Political, Socio-Economic and Sociocultural Impacts of the King Abdullah Scholarship Program (KASP) on Saudi Arabia. *International Journal of Higher Education*, 4(1), 254-267. <https://doi.org/10.5430/ijhe.v4n1p254>
- Hung, R. Y. Y., Yang, B., Lien, B. Y. H., McLean, G. N., & Kuo, Y. M. (2010). Dynamic capability: Impact of process alignment and organisational learning culture on performance. *Journal of World Business*, 45(3), 285-294. <https://doi.org/10.1016/j.jwb.2009.09.003>
- Hussein, N., Mohamad, A., Noordin, F., & Ishak, N. A. (2014). Learning organisation and its effect on organisational performance and organisational innovativeness: A proposed framework for Malaysian Public Institutions of Higher Education. *Procedia-Social and Behavioral Sciences*, 130(2014), 299-304. <https://doi.org/10.1016/j.sbspro.2014.04.035>
- Hvidt, M. (2013). *Economic diversification in GCC countries: Past record and future trends*.
- Imam, A., Abbasi, A. S., Muneer, S., & Qadri, M. M. (2013). Organisational culture and performance of higher educational institutions: The mediating role of individual readiness for change. *European Journal of Business and Management*, 5(20), 23-34.
- Islam, S. I. (2014). Saudi women: Opportunities and challenges in science and technology. *Education Journal*, 3(2), 71-78.
- Karakas, F. (2010). Spirituality and performance in organisations: A literature review. *Journal of business ethics*, 94(1), 89-106. <https://doi.org/10.1007/s10551-009-0251-5>
- Khan, M. K., & Khan, M. B. (Eds.). (2020). *Research, Innovation and Entrepreneurship in Saudi Arabia: Vision 2030*. Routledge. <https://doi.org/10.4324/9781351040020>
- Kim, J., Egan, T., & Tolson, H. (2015). Examining the dimensions of the learning organization questionnaire: a review and critique of research utilizing the DLOQ. *Human resource development review*, 14(1), 91-112. <https://doi.org/10.1177/1534484314555402>
- Laeque, S. H., & Babar, S. F. (2015). Learning organisation as a strategy to improve performance of Pakistani

hospitals.

- Marlow, S. L., Lacerenza, C. N., Paoletti, J., Burke, C. S., & Salas, E. (2018). Does team communication represent a one-size-fits-all approach?: A meta-analysis of team communication and performance. *Organisational Behavior and Human Decision Processes*, *144*, 145-170. <https://doi.org/10.1016/j.obhdp.2017.08.001>
- Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the value of an organization's learning culture: the dimensions of the learning organization questionnaire. *Advances in developing human resources*, *5*(2), 132-151. <https://doi.org/10.1177/1523422303005002002>
- Mbuthia, R. N. (2018). Learning Organization Dimensions And Organizational Performance Of Commercial Banks In Kenya: Survey Of Commercial Banks In Ongata Rongai Township (Doctoral dissertation, School Of Business, Kenyatta University).
- Nielsen, P., Rasmussen, P., & Kuo, T. H. (2011). How to improve organisational performance through learning and knowledge? *International Journal of Manpower*.
- Oh, S. Y. (2019). Effects of organisational learning on performance: the moderating roles of trust in leaders and organisational justice. *Journal of Knowledge Management*. <https://doi.org/10.1108/JKM-02-2018-0087>
- Onwuegbuzie, A. J., Witcher, A. E., Collins, K. M., Filer, J. D., Wiedmaier, C. D., & Moore, C. W. (2007). Students' perceptions of characteristics of effective college teachers: A validity study of a teaching evaluation form using a mixed-methods analysis. *American Educational Research Journal*, *44*(1), 113-160. <https://doi.org/10.3102/0002831206298169>
- Othayman, M. B., Meshari, A., Mulyata, J., & Debrah, Y. (2020). The Challenges Confronting the Delivery of Training and Development Programs in Saudi Arabia: A Critical Review of Research. *American Journal of Industrial and Business Management*, *10*(09), 1611. <https://doi.org/10.4236/ajibm.2020.109103>
- Phusavat, K., Comepa, N., Sitko-Lutek, A., & Ooi, K. B. (2011). Interrelationships between intellectual capital and performance. *Industrial Management & Data Systems*. <https://doi.org/10.1108/02635571111144928>
- Ponnuswamy, I., & Manohar, H. L. (2016). Impact of learning organization culture on performance in higher education institutions. *Studies in Higher Education*, *41*(1), 21-36. <https://doi.org/10.1080/03075079.2014.914920>
- Saifulhafizi, H. (2014). *The influence of learning organisation towards the performance: A study on small and medium enterprise (SME) of manufacturing firms in Johor Bahru, Johor* (Doctoral dissertation, Universiti Utara Malaysia).
- Salau, A. O., & Ahmad, A. C. (2016). Audit fees, corporate governance mechanisms, and financial reporting quality in Nigeria. *DLSU Business & Economics Review*, *26*(1), 122-135.
- Sayed, S. S. S. A., & Edgar, D. (2019). The role of leadership competencies in supporting the Al Nahda University for becoming a learning organisation: a new qualitative framework of the DLOQ. *International Journal of Business Administration*, *10*(2). <https://doi.org/10.5430/ijba.v10n2p43>
- Senge, P. (2004). *Five disciplines*. New York, NY: Doubleday.
- Senge, P. M. (1990). *The art and practice of the learning organization*.
- Senge, P. M. (2006). *The fifth discipline: The art and practice of the learning organisation*. Broadway Business.
- Senge, P. M. (2014). *The fifth discipline fieldbook: Strategies and tools for building a learning organisation*. Crown Business.
- Senge, P. M. et al. (1994). *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization*. New York: Doubleday.
- Sharifirad, M. S. (2011). The dimensions of learning organization questionnaire (DLOQ): A cross-cultural validation in an Iranian context. *International Journal of Manpower*, *32*(5-6), 661-676. <https://doi.org/10.1108/01437721111158251>
- Shepherd, D. A., & Gruber, M. (2020). The Lean Startup Framework: Closing the Academic-Practitioner Divide. *Entrepreneurship Theory and Practice*, 1042258719899415. <https://doi.org/10.1177/1042258719899415>
- Smith, L., & Abouammoh, A. (2013). Higher Education in Saudi Arabia. *Netherlands: Springer*. <https://doi.org/10.1007/978-94-007-6321-0>
- Song, J. H., Chai, D. S., Kim, J., & Bae, S. H. (2018). Job performance in the learning organisation: The mediating impacts of self-Efficacy and work engagement. *Performance Improvement Quarterly*, *30*(4),

249-271. <https://doi.org/10.1002/piq.21251>

- Song, J. H., Joo, B., & Chermack, T. J. (2009). The dimensions of learning organisation questionnaire (DLOQ): A validation study in a Korean context. *Human Resource Development Quarterly*, 20(1), 43-64. <https://doi.org/10.1002/hrdq.20007>
- Soon, T. T., & Zainol, F. A. (2011). Knowledge management enablers, process and organisational performance: evidence from Malaysian enterprises. *Asian Social Science*, 7(8), 186. <https://doi.org/10.5539/ass.v7n8p186>
- Yang, B., Watkins, K. E., & Marsick, V. J. (2004). The construct of the learning organisation: Dimensions, measurement, and validation. *Human resource development quarterly*, 15(1), 31-55. <https://doi.org/10.1002/hrdq.1086>
- Yeravdekar, V. R., & Tiwari, G. (2016). *Internationalisation of higher education in India*. SAGE Publications India.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Impact of Information on Food Stocking during Early Period of COVID-19 Outbreak: *Survey Exploration between Canada and US Consumers*

Yuanfang Lin¹, Xuezhu Wang¹, & Tirtha Dhar¹

¹ Gordon S. Lang School of Business and Economics, University of Guelph, Guelph, Canada

Correspondence: Yuanfang Lin, Gordon S. Lang School of Business and Economics, University of Guelph, Guelph, ON., N1G 2W1, Canada.

Received: December 11, 2020

Accepted: January 11, 2020

Online Published: January 21, 2020

doi:10.5539/ibr.v14n2p72

URL: <https://doi.org/10.5539/ibr.v14n2p72>

Abstract

We summarize the exploration results from a survey study that asks Canada and U.S. consumers questions related to their acquisition and processing of information related to the COVID-19 pandemic, situation assessment at the beginning of outbreak, as well as food shopping and stocking behavior during the lockdown. Our analyses identified unique factors influencing consumers' situation assessment and stockpiling decisions that are going along with the emerging social and cultural trends over the past two decades. These include the wide reach of internet-based media, multiple sources of information in terms of different media types, media languages as well as communication across country borders towards an individual's immigration and other ethnicity background. Information obtained from social media sources is found to have statistically different impact on the initial situation assessment between Canada and U.S. customers. But learning COVID-19 news from non-English media source significantly increases the seriousness perception of consumers from both countries. Information acquisition from multiple language sources also makes a Canadian customer more likely to stockpiling food items. Consumers' food stocking behavior from both countries are under the influence of societal and economic factors such as job security. Findings from our research contribute to the ongoing global efforts in mitigating COVID-19's negative impact by generating effective policy and strategic recommendations for government and business communities to implement collaborative and constructive actions under the global pandemic.

Keywords: COVID-19, ethnic diversity, information sources, media language, stockpiling

1. Introduction

1.1 Background

The impact of COVID-19 pandemic and the lockdown which had been taking place across the globe were unprecedentedly striking for the society worldwide. Almost all businesses have to adapt and adjust their networks of product ordering, stocking, allocation and distribution due to the fluctuation of demand which are closely linked to the global economy network under the pandemic. The primary focus of this research paper is on North American consumers' stockpiling behavior during COVID-19 and the exploration and identification of unique informational and social drivers which were different from previous outbreaks within this century. Extensive research in business and economics have classified consumer stockpiling as an unconventional loss-avoidance shopping behavior under environmental stress/ uncertainty (Helsen & Schmittlein, 1992; Azadegan, Patel, Zangouinezhad, & Linderman, 2013; Barello, 2014). It was certainly also the case under the current COVID-19 pandemic. First weeks of the COVID-19 lockdown in many cities of Canada have witnessed striking themes as food and other products flew off store shelves as fast as (or even faster than) they could be stacked (Bogart, 2020). Statistics Canada has recorded percentage increases in sales for a wide range of food products for the week ending in mid-March 2020 in comparison to the average level in 2019, with some increases (e.g. frozen fruits, frozen vegetable) over 120%!

1.2 Research Objectives

Instead of further confirming the existence of consumer stockpiling, we aim to empirically explore and identify unique driving forces behind such phenomenon under COVID-19 in comparison to the period of past two

pandemic outbreaks (SARS, H1N1) the human society had experienced since the beginning of this century. Those forces could be corresponding to the emerging social-economic trends developed during the same time period (the past two decades). The specific research questions we are investigating include: How did consumers acquire and process information related to COVID-19 at the beginning of outbreak? How would such information process influence consumers' shopping behaviour under lock down? What kind of consumers are more likely to stockpile? Unlike existing studies (Sterman & Dogan, 2015) on consumer stockpiling and business operation under short-term environmental stresses (e.g. hurricane), the widespread outbreak of COVID-19 may lead to global shortages of product supply on a much larger scale, making it increasingly more difficult for retailers to satisfy demands using conventional measures such as increasing order from suppliers or shifting inventory around networks. It calls for a systematic adjustment in both the information communication strategy and marketing distribution channels to combat the negative impact on society due to the COVID-19 pandemic. Answers to our research questions would be highly valuable to policy makers and business managers to implement collaborative and constructive actions to maintain the social welfare under pandemic. Our study thus contributes to the global efforts in mitigating COVID-19's negative impact from social, economy and policy perspectives.

1.3 Overview of Research Findings

Using results from a multi-round survey administered on Qualtrics survey platform towards Canadian and U.S. participants recruited through Amazon MTurk cloud service, we present empirical evidences that the growing reach of online media over the past two decades are having much more significant influences on consumers' initial assessment regarding the seriousness of COVID-19 pandemic in comparison to traditional media types. The growing demographic diversification in the North American society also generates potentially multiple sources of information acquisition and sharing about COVID-19 which include but are not limited to various media sources, different media languages, and communication within and across the residential country borders. Acquiring and exchanging COVID-19 news via multiple sources tend to let a consumer have an early perception of a more serious pandemic outbreak which could in turn drive the food stockpiling decision. Noticeable differences were found between U.S. and Canadian residents when it comes to the initial situation assessment at the beginning of outbreak. As it got past the initial outbreak, consumers' decision to stockpiling during the lockdown period is found to be driven less by information sources, but rather due to the choice of shopping mode (online vs offline), concerns over pandemic related social issues (e.g. job security) and specific demographic characteristics (e.g. gender, ethnicity).

2. Literature Review

This paper is primarily connected with economics and business studies on the drivers and determinants of consumers shopping and stockpiling behaviour under various market and situational conditions.

2.1 Consumer Food Stockpiling under General Economic Conditions

Price promotion has long been identified as a common drive for consumers' stockpiling behaviour. In particular, a low promotion environment tends to attract consumers to stockpile (Bell, Chiang, & Padmanabhan, 1999; Gupta, 1988; Helsen & Schmittlein, 1992) while seeking optimal solution to the household inventory (Assuncao & Meyer, 1993; Boizot, Robin, & Visser, 2001; Hendel & Nevo, 2006). In the context of retail operations management, consumer stockpiling behaviour has been identified as heterogeneous segments' responses under the high-low (HILO) pricing environment (Blattberg, Eppen, & Lieberman, 1981; Breiter & Huchzermeier, 2015). Stockpiling consumers value monetary savings over convenience and are willing to stockpile their inventory, postpone purchases, or buy lower quantities, depending on the promotion available facing price variability in a HILO environment (Ho, Tang, & Bell, 1998). Studying how consumers respond to promotions through stockpiling has been found to benefit retailers and manufacturers by information sharing (Iyer & Ye, 2000) and the reduction of production planning costs (Huchzermeier, Iyer, & Freiheit, 2002).

2.2 Consumer Food Stockpiling under Environmental Stress

Extensive researches have been investigating consumer stockpiling behaviour under various dimensions of environmental uncertainty originated from financial situation, economic event, and other external factors such as natural disaster (Wernerfelt & Karani, 1987). Environmental changes due to financial and economic events have been noticeably found to precipitate significant stress on consumers to engage in stockpiling behaviour (Hobson et al., 1998). Tokar, Aloysius, Williams, and Waller (2014) finds the bias toward over-ordering relative to optimal orders, while Sterman and Dogan (2015) study hoarding and phantom ordering under anticipated demand shock. Both studies indicate that environmental stress stimulates the impulse to stockpile in preparation for uncertain outcomes (Sweeny & Shepperd, 2007). Behaviour research has identified the dilemma that facing financial stress,

consumers may be incentivized to stockpile to take advantage of promotional prices; however, financial resources may limit consumers' ability to stockpile (Bendoly & Hur, 2007).

There is another stream of research on consumer irrational stockpiling, hoarding or panic buying behaviour associated with major natural disasters and humanitarian crisis (hurricane, earthquake) where many consumers buy unusually large amounts of product to avoid possible future shortage due to supply disruption. Unlike store or brand promotion-triggered stockpiling, disaster triggered stockpiling behaviour contains more irrational factors and can be treated as an unconventional inventory accumulation action for reducing potential losses (Hendricks, Jacobs, & Singhal, 2019; Snyder et al., 2015). Fear of the unknown is reflected in panic buying behaviours as consumers channel their lack of knowledge about crises into behaviours perceived as comforting, providing security or that alleviate stress (Elmore, 2017). With limited information and time for thinking and judging the situation during disasters, the fear of commodity scarcity becomes contagious and the distorted facts and exaggerated misinformation will increase stockpiling behaviour and purchase acceleration (Zheng, Shou, & Yang, 2020). Panic buying often leads to large quantities of necessities and medical supplies being purchased from vendors, and vastly limiting or even eliminating availability such that individuals and vulnerable groups, including the elderly or poor, are prevented from accessing them as they would normally do (Besson, 2020). As there are no broadly researched modern pandemics outside of SARS in 2003, which was fairly localised in its presentation, research on COVID-19 will be formative for understanding and perhaps anticipating the future of shock and crisis research (Loxton et al., 2020). Research conducted by Yuen, Wang, Ma, & Li (2020) in response to the coronavirus established four key factors causing panic buying: (1) perception, (2) fear of the unknown, (3) coping behaviour and (4) social psychology.

2.3 Information-Related Drivers behind Consumer Food Stockpiling under COVID-19

Behavioural economics illustrates the effect of an information cascade, whereby consumers within a network are influenced by the behaviours and decisions of others (Easley & Kleinberg, 2010). With limited information and time for thinking and judging the situation during disasters, the fear of commodity scarcity becomes contagious and spreads expeditiously over media channels (e.g., social media, TV, radio, newspaper). Distorted facts and exaggerated misinformation will increase stockpiling behaviour and purchase acceleration and deteriorate the situation (Chen et al., 2020). Such information-related impact on consumers' food purchase and stocking behaviour is expected to become more prominent considering the evolution of media development and consumption in North America during the past two decades (2000 – 2020), in particular, compared with the time of SARS outbreak (2003) and H1N1 (2011), which were the past two pandemic outbreaks the human society had experienced since the beginning of this century.

2.4 Research Contribution

This paper focuses on exploring factors influencing COVID-19 information acquisition, process and exchange which are closely tied to consumers' demographic and ethnic background, as well as the emerging social trends in the past two decades. To our best knowledge, there has not been study from such angle to investigate the informational impact on consumers' purchasing and stockpiling behaviour during COVID-19 pandemic. We formally develop our research hypothesis in the next section.

3. Conceptual Framework

The overall conceptual framework of our study is illustrated by Figure 1 which is followed by detailed discussion of each research hypothesis.

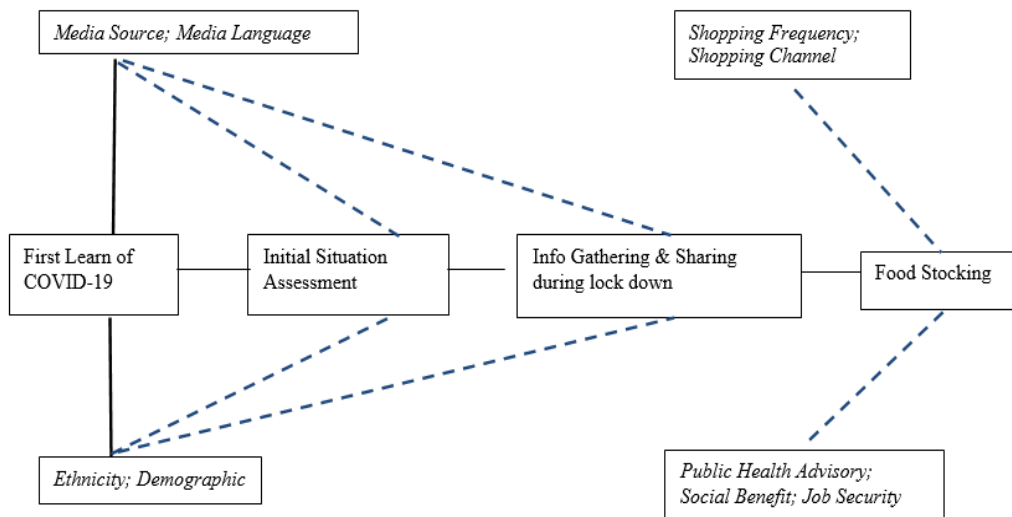


Figure 1. Conceptual Framework

3.1 Impact of Media Types

Figure 2 displays the reach evolution of different media types in Canada from 2001 to 2019. By 2019, internet media has achieved near 100% reach in Canada, while the reach of traditional media including newspaper and magazine have experienced significant decline (below 50% by 2019) in comparison to the periods during the past two outbreak in this century. Similar observation can be made in the U.S. (Figure 3) where internet users reached 312 million in 2019, which was up from nearly 287 million in 2017 and represented over 95% of total population (328.2 million according to statista.com). Marketing research has found the increase of “search online, purchase offline” pattern of consumer shopping behavior in a wide variety of markets and product categories (Zhuang, Leszczyc, & Lin, 2018).

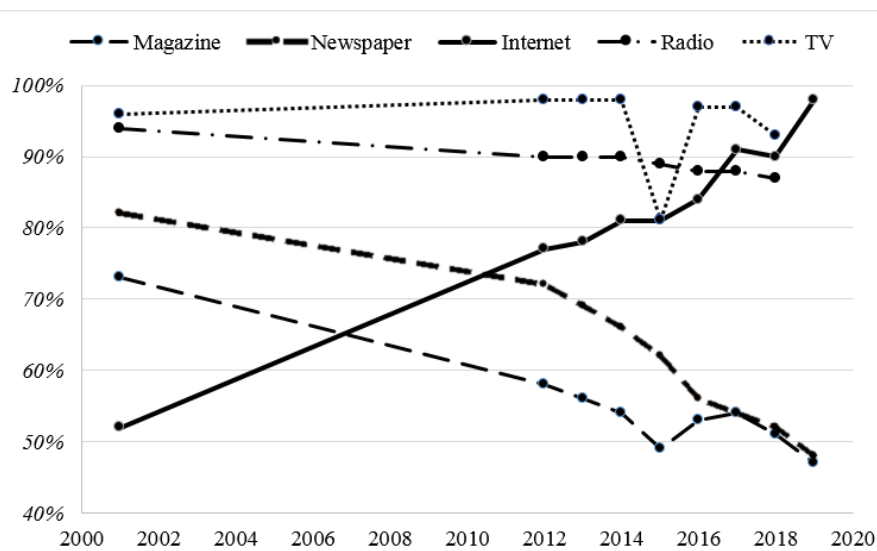


Figure 2. Weekly reach of selected media in Canada

Note: Figure 2 was generated by the authors using raw data 2001 – 2019 from IAB Canada.

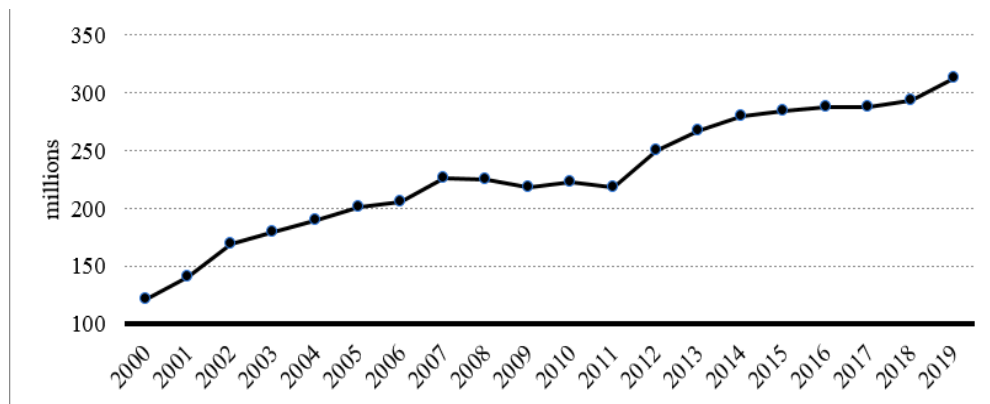


Figure 3. Number of internet users in the United States from 2000 to 2019 (Internet World Stats)

We believe that the rise and decline of those different media types will in turn affect how consumers obtain COVID-19 related information which would have been different from decades ago. Formally, we state our first hypothesis as:

Hypothesis #1: Information obtained via online media source has greater impact on consumers’ initial situation assessment regarding COVID-19 (in comparison to the traditional media types).

3.2 Impact of Media Languages

Another trend that was developing along the same time span (2000 – 2019) is the growing number of immigrants in both countries with the upward trend more prominent for Canada as indicated by Figure 4. Along with the growing number, the latest census in Canada (2016) also indicates high retention rate of immigrant mother tongues at home as summarized by Figure 5. We can interpret Figures 4 & 5 as that nearly 80% (El-Assal, 2020) of Canadians could be speaking mother tongues at home which are different from English or French as the country’s official language especially at work. Noticeably Canadians across the country have been experiencing lock down of various forms during the majority time of the past (nearly) half year (March – September, 2020), which makes a quite blurry line between gathering information from home or from work. A similar usage pattern of mother language by immigrants at home was observed in the U.S. from a recent survey on immigration trends and language conducted by Pew Research Center (Scamman, 2019).

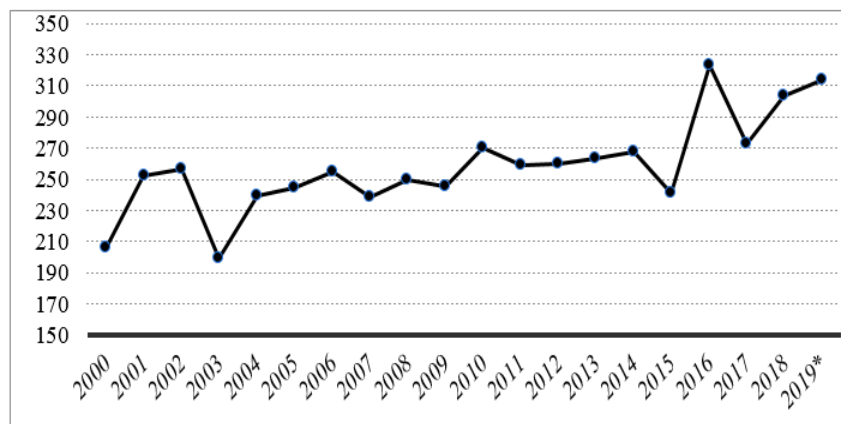


Figure 4. Number of immigrants (in 1,000s) in Canada from 2001 – 2019 (Statista.com)

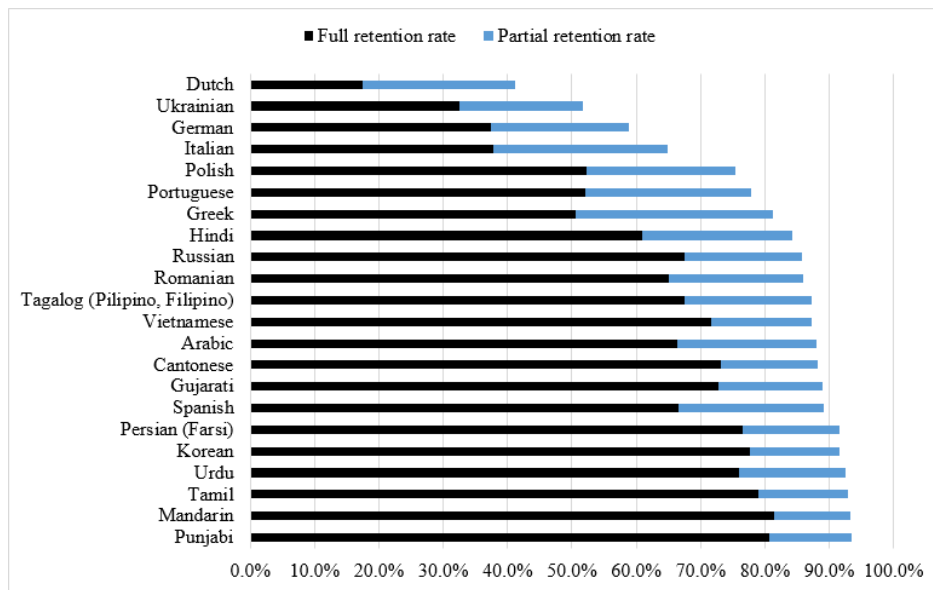


Figure 5. Full or partial retention rate for the 22 main immigrant mother tongues in Canada (Census 2016)

The ethnicity and language diversity would clearly influence consumers’ preferred language of media consumption (see Figure 6 for Canadian consumers). On the flip side, the multiple media language sources may also add to government authority’s concern with regards to the spread of fake news or misleading information about COVID-19, which was labelled by World Health Organization (WHO) as “infodemic” (Charlton, 2020). We now formally state the second hypothesis for empirical investigation:

Hypothesis #2: Information from multiple language sources would increase the level of seriousness in consumers’ initial COVID-19 situation assessment.

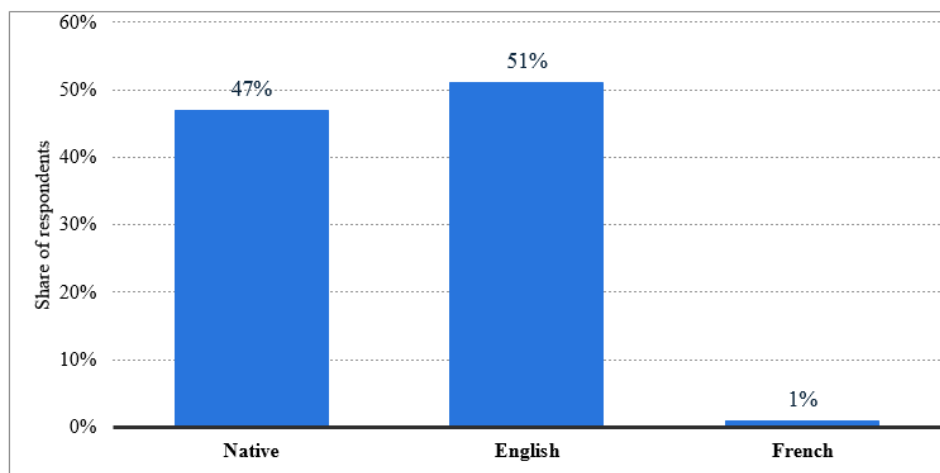


Figure 6. Preferred language of media consumption among immigrants to Canada (Yahoo Canada, October 2014)

3.3 Impact of Information Exchange

The outbreak and lockdown allowed consumers to spend more time online for various activities as found out in the McKinsey COVID-19 Consumer survey of over 6000 participants during March 27-29, 2020 (Figure 7). Meanwhile the unique character of ethnicity and mother-language diversity also created additional channel of information exchange. One of the co-authors personally experienced the following scenario: around January 2020, he started forwarding his parents (at that time resided outside Canada) media reports in English covering

the COVID-19 outbreak at his parents’ country of residence, urging them to take necessary precautionary measures. Turning the clock to March 2020, it was the turn of his parents who were busy forwarding him media reports (in their mother language) about the outbreak in Canada with similar warning message of necessary stocking in preparation for lock down. We suspect that given the huge proportion of immigrant populations in North America as discussed earlier, such pattern of multiple information exchange would play an important role in customers’ stockpiling decision during the pandemic outbreak. Formally, we state the third hypothesis as:

Hypothesis #3: Information exchange from multiple sources especially those outside the country of residences would increase consumer’s propensity of food stockpiling.

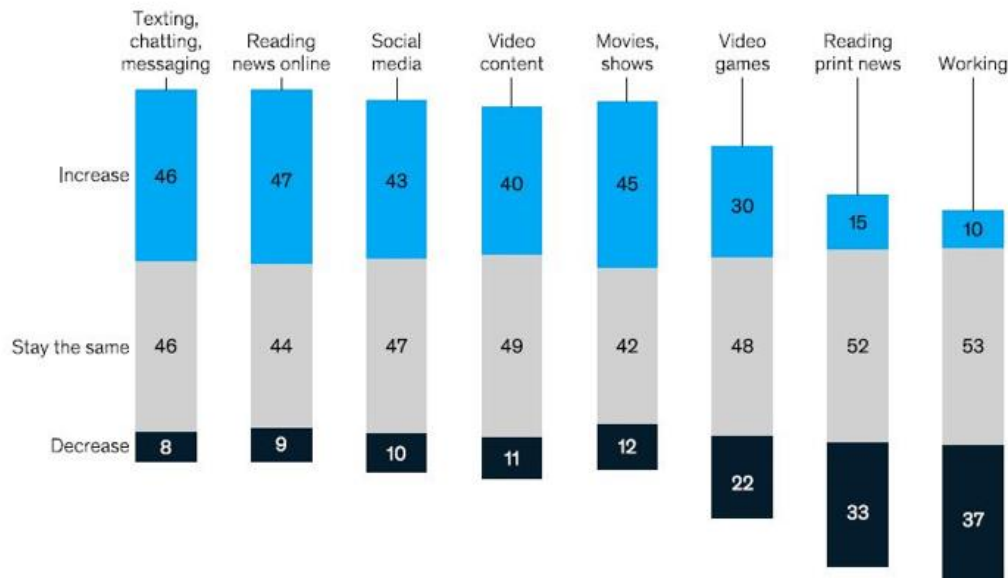


Figure 7. Change in time spent on selected activities during pandemic (% of respondents)

3.4 Other Societal Impacts

Finally, the COVID-19 pandemic has indeed stirred up a wide range of social-economic issues/ concerns including but are not limited to social distancing, border closure, reduced international supply cargos, job security, and social benefits (Shapira, Coco, & Sorbara, 2020). Our final hypothesis suggests that how concerned a consumer is regarding the COVID-19 related social-economic issues would contribute to the psychological drives behind the unconventional stockpiling under the pandemic.

Hypothesis #4: A consumer who is more concerned about COVID-19 related social-economic issues is more likely to engage in food stockpiling.

4. Research Methodology

The analyses presented in this paper are based on primary data collected from two rounds of consumer survey study. The purpose of study is to investigate consumer information acquisition and exchange regarding COVID-19 pandemic, the impacts on initial perception of the outbreak and the stockpiling decision during grocery purchase. The surveys are administered online via Qualtrics platform and the participants are anonymously recruited from Amazon Mechanical Turk (MTurk) crowdsourcing marketplace. All respondents are required to be US or Canadian residents, fluent in English, and 18 or older.

4.1 Online Survey 1

The first round of survey was conducted in June 2020. The survey period is of great interest because for our primary geographic area of research focus, North America, initial outbreak and lock down of various forms typically occurred around mid - March of 2020 as summarized by Table 1. As time approached the end of June, most provinces or territories in Canada have been experiencing outbreak and lockdown for nearly 3 months and there had been discussions regarding various plans of re-opening (Rocca, 2020). Survey participants during this period are expected to have more time and more stable mindset to recall experiences at the beginning or early period of outbreak and to provide more reliable survey responses.

Table 1. Provincial/ Territorial lock down time due to COVID-19 (Canada)

<i>Province/Territory</i>	<i>State of Emergency Declared</i>
Quebec	12-Mar
Prince Edward Island	16-Mar
Alberta	17-Mar
Ontario	17-Mar
British Columbia	18-Mar
Newfoundland and Labrador	18-Mar
Northwest Territories	18-Mar
Nunavut	18-Mar
Saskatchewan	18-Mar
Yukon	18-Mar
New Brunswick	19-Mar
Manitoba	20-Mar
Nova Scotia	22-Mar

Note: McCarthy Tetrault, COVID-19: Emergency Measures Tracker, June 18, 2020.

Besides general demographics, most questions of interest in Survey 1 asked participants about the calendar month, media source and language, as well as personal information sharing when they learned of COVID-19 the “first time”, which were followed by asking participants to recall their initial perception of the outbreak situation and the likelihood of food shortage in the following two key questions:

- When you first learned of the COVID-19, how likely do you think it will become a serious situation that leads to state of emergency and lock down? Provide your answer in a scale of 1-7 with 7 being the most serious.
- At the start of lock down, how likely do you think there will be a food shortage in the community where you reside? Provide your answer in a scale of 1-7 with 7 being the most likely.

4.2 Online Survey 2

The second round of survey was conducted in August 2020. Participants were asked questions regarding the frequency, media source and language, as well as forms of personal contacts taken to obtain and share the updates of COVID-19 related information after 3 months of outbreak and lock down. These were followed by questions exploring participants’ shopping frequency, choice of shopping channel (online versus offline), and monetary spending during the outbreak. Consumers’ tendency of stockpiling were measured by answers provided to key questions including:

- Do you (or your household) store more food during pandemic than you used to?
- Using the food stocked during this pandemic, my family/ household can survive for about _____ weeks.

314 respondents were collected for Survey 1 with exactly 50-50 split between US and Canadian residents. Respondents for Survey 2 include 151 US residents and 153 Canadian residents.

5. Empirical Analysis

5.1 Survey 1 Data Analysis

5.1.1 Information Acquisition at the Beginning of Outbreak

Although the initial outbreak on the other side of world occurred between November to December 2019, responses from survey 1 indicate that the average American or Canadian learned of COVID-19 the first time in between December 2019 to January 2020. Figure 8 illustrates the distribution of media source from which a US versus Canadian resident learned of COVID-19 the very first time.

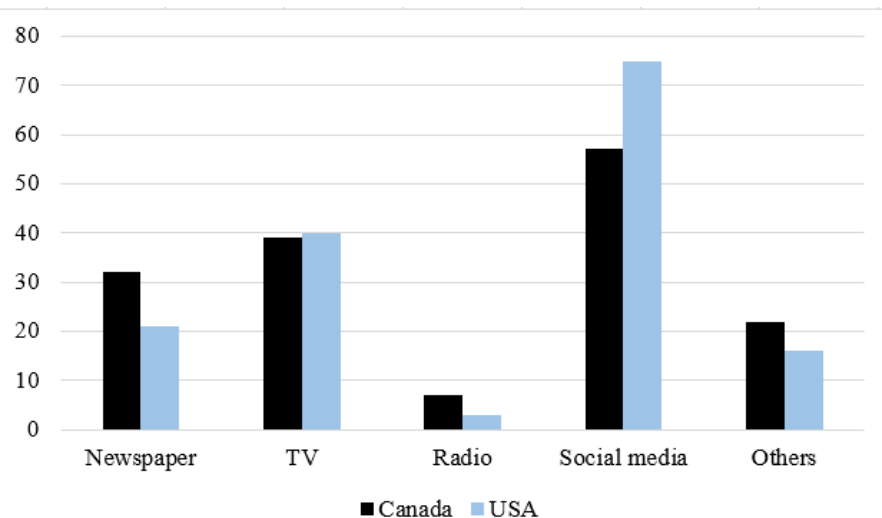


Figure 8. Media Source from which a survey 1 participant learned of COVID-19 the first time

For survey participants in both countries, social media and TV were the top two media sources from which they initially learned of COVID-19. A big contrast between these two countries is that, over 20% (32 out of 157) Canadian participants learned of COVID-19 the first time from newspapers, which is statistically significant ($P < 0.05$, one-tailed) and greater than the portion (13%) from American participants. Data collected by Survey 1 also suggests two other differences between US and Canadian participants regarding the initial learning of COVID-19 related news. Over 10% of respondents in Canada learned of COVID-19 the first time from non-English media report, for American respondents the proportion is 7% with the difference being marginally significant ($P < 0.1$, one-tailed). Such difference could be attributed to the fact that both English and French are the official languages in Canada. However, 11% of respondents in Canada stated that their “initial learning of COVID-19 also includes information passed on to me by people from countries outside my residence.” This percentage is much higher than that of American respondents (4%) with the difference being highly significant ($P < 0.01$, one-tailed). Considering the almost 2 months of “information accumulation” (from initial outbreak on the other side of the world to the first time an American or Canadian resident learned of COVID-19), we are interested to see if this particular channel of information acquisition would have significant impact on consumers’ initial perception of the outbreak situation.

5.1.2 Statistical Analysis Using Survey 1 Data

An F-Test indicates that there is much higher variance (4.1 out of 7) in U.S. respondents’ initial assessment on the seriousness of the pandemic situation than from the Canadian residents (2.7 out of 7) with the difference being highly significant ($P < 0.01$, one-tailed). To explore the factors leading to such huge difference in the initial situation assessment between samples from the two countries, a binary logistic regression (Wooldridge, 2010) model is employed to investigate the impacts of media sources and languages on consumers’ initial perception of the pandemic situation. The dependent variable $Concern_i = 1$ if a respondent i ’s (7-pt scale) rating on the perceived seriousness of the pandemic when first learned of COVID-19 is greater than the sample median ($=3$), $= 0$ otherwise. The list of independent variables include a time variable indexing the month when a respondent first learned of COVID-19, along with a series of dummy variables indicating the media source, language and country origin from which a respondent first learned of COVID-19. Rumbaut (2004) classifies Chinese-Canadian as first-generation, 1 ½ generation, or second-generation according to own or parent’s birth country and/ or the age when an individual immigrated to Canada. As there is no sufficient respondents belonging to each subcategory defined similarly as in Rumbaut (2004), we created a composite dummy variable $Immigrant_i = 1$ if a respondent (or at least one of the parents) was born outside the current country of residence (USA or Canada for the corresponding survey participants), $=0$ otherwise. Table 2 provides full definitions of the variables used in the model estimation, and Table 3 reports the summary statistics.

Table 2. List of variables for statistical analysis using survey 1 data

Variables	Description & Values
Perceived Seriousness	(7-pt scale) with 1 being "not serious at all", 7 being "most serious"
FT	First time learned of COVID-19. 0="Nov,19", 1="Dec,19", 2="Jan,20", 3="Feb,20", 4="Mar,20"
Newspaper	= 1 if first learned of COVID-19 from online or offline Newspaper; = 0 otherwise
TV	= 1 if first learned of COVID-19 from a TV network; = 0 otherwise
SocialMedia	= 1 if first learned of COVID-19 from social media; = 0 otherwise
NonEng	= 1 if first learned of COVID-19 from non-English media; = 0 otherwise
DiffCY	= 1 if first learned of COVID-19 from outside of current country of residence; = 0 otherwise
Immigrant	= 1 respondent or at least one parent was born outside current country of residence; = 0 otherwise

Table 3. Descriptive statistics for the list of variables in Table 2

Variables	Mean		Median		Std. Dev		Min		Max	
	Canada	USA	Canada	USA	Canada	USA	Canada	USA	Canada	USA
Perceived Serious	3.178	3.961	3	4	1.649	1.964	1	1	7	7
FT	1.981	2.071	2	2	0.984	1.117	0	0	4	4
Newspaper	0.204	0.135	0	0	0.403	0.342	0	0	1	1
TV	0.242	0.258	0	0	0.428	0.438	0	0	1	1
Social Media	0.357	0.484	0	0	0.479	0.500	0	0	1	1
NonEng	0.108	0.071	0	0	0.311	0.257	0	0	1	1
DiffCY	0.11	0.041	0	0	0.312	0.197	0	0	1	1
Immigrant	0.293	0.146	0	0	0.455	0.353	0	0	1	1

The probability that a respondent i would perceive the situation to be serious after first learning of COVID-19 is specified as

$$Pr (Concern_i = 1) = \frac{\exp(x_i\beta)}{1+\exp(x_i\beta)} \tag{1}$$

where

$$x_i\beta = \beta_0 + \beta_1 FT_i + \beta_2 Newspaper_i + \beta_3 TV_i + \beta_4 SocialMedia_i + \beta_5 NonEng_i + \beta_6 DiffCY_i + \beta_7 Immigrant_i \tag{2}$$

Full results of estimation are reported in Table 4. For Canadian respondents, the only media source that had statistically significant effect on their initial perception of the situation seriousness is social media with estimated coefficient $\beta_4 = -1.2$, which can be converted to $\exp(\beta_4) = 0.3$. This points to an interesting finding: all else being equal, the odds of perceiving a serious outbreak early are 70% lower for a Canadian who first learned of

COVID-19 through social media! In contrast, TV is the only media source that had statistically significant effect on American respondents' initial perception of the outbreak situation with estimated coefficient being 1.068, which can also be converted to the effect on odds ratio: $\exp(1.068) = 2.909$. All else being equal, the odds of perceiving a serious outbreak early are 190% higher for a U.S. resident who first learned of COVID-19 through TV networks. We believe this findings echoes the huge diversification in terms of opinion and coverage view across different TV networks in U.S. According to a survey conducted as a part of Pew Research Center's Election News Pathways project (Jurkowitz & Mitchell, 2020), the pandemic coverage varies notably across Fox News, MSNBC and CNN (the three major cable news networks featured in the analysis as American's major sources of political and general news). Consequently first learning of COVID-19 from the TV network which reports the pandemic outbreak in much more serious tone (with greater coverage) would drive an American to draw similar conclusion about the situation. For survey respondents from both countries, learning of COVID-19 news the first time from a non-English media source significantly increase the likelihood of perceiving the situation to be serious at the beginning (exponentiated coefficient = 3.7 for Canadian, = 7.2 for American). Another significant difference is that Canadian respondents having immigration background (as defined similarly in Cleveland & Xu, 2019) are more likely to form an early perception of serious outbreak (estimated coefficient = 0.654, exponentiated coefficient = 1.924) while such effect is insignificant for respondents from the U.S. We also estimated the binary logit model (Equation 1) by including in Equation (2) the interaction terms between Immigrant and different media source variables in Table 2. None of estimated coefficients for the interactive terms is statistically significant. We believe this can be attributed to the fact that the ethnicity backgrounds of Amazon MTurk workers are not sufficiently diversified (Ross, Irani, Silberman, Zaldivar, & Tomlinson, 2010).

Table 4. Binary Logistic Regression Output using Survey 1 Data

Variables	Parameters	Estimated Coefficient		Std. Error		P-Value	
		(Canada)	(USA)	(Canada)	(USA)	(Canada)	(USA)
Intercept	β_0	-0.630	-0.849	0.518	0.645	0.224	0.188
FT	β_1	0.184	0.059	0.187	0.163	0.327	0.718
Newspaper	β_2	-0.748	1.044	0.549	0.721	0.173	0.147
TV	β_3	-0.555	1.068	0.525	0.647	0.291	0.099*
SocialMedia	β_4	-1.200	0.958	0.515	0.608	0.020*	0.115
NonEng	β_5	1.315	1.974	0.574	1.105	0.022*	0.074*
DiffCY	β_6	0.620	-1.564	0.589	1.095	0.293	0.153
Immigrant	β_7	0.654	0.770	0.414	0.564	0.104*	0.173

Note: * indicates statistically significance at alpha level of 0.1 or less.

5.2 Survey 2 Data Analysis

5.2.1 Information Acquisition during Lockdown

Responses collected by Survey 2 continue showing difference in terms of information gathering and exchange after about three months of outbreak between U.S. and Canadian participants. As illustrated by Figure 9, the percentage of Canadians who checked COVID-19 news in more than one languages is almost twice as much as that of Americans, such difference is found to be statistically significant ($P < 0.001$, one-tailed).

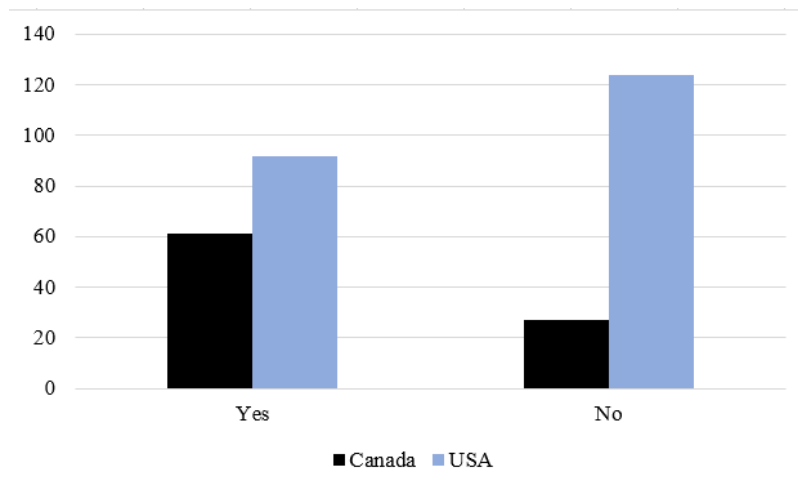


Figure 9. Number of survey 2 participants who browsed COVID-19 news in more than one language

Over 80% of participants from either country have been discussing and sharing COVID-19 related information (e.g. cases, social distancing, food stocking) with others through multiple channels including inside family residence, colleagues at work, family or friends from the same or different city/provinces, etc. A big contrast is, over 41% of respondents from Canada have been exchanging information with people outside their country of residence, while this percentage is only about 12% among respondents from U.S. The difference is again statistically significant ($P < 0.001$, one-tailed test). Respondents were also asked to state their level of satisfactions towards government public's health advisories, pandemic-relief social benefits, as well as their concerns about job security during the outbreak. Respondents from Canada are more satisfied with government's public health advisory (median = 3.7 out of 5-pt scale) than US participants (median = 2.5 out of 5-pt scale). Similar pattern is found on the survey respondents' satisfaction level towards government's pandemic-relief social benefits (median = 3.5 for Canadian participants which is greater than median = 2.5 for U.S. participants, out of 5-pt scale). Meanwhile Canadians are found to be more concerned (median = 4.4 out of 7-pt scale) in comparison to the Americans (median = 3.5 out of 7-pt scale) about job security. All the above differences between survey responses from the two countries are statistically significant ($P < 0.001$, one-tailed test).

5.2.2 Statistical Analysis Using Survey 2 Data

Another binary logistic regression model is employed to investigate factors influencing consumers' propensity of stockpiling food during COVID-19 outbreak. The dependent variable $Stocking_i = 1$ if a respondent i answered "Yes" to question in survey 2 stating that the household stocked more food during pandemic than it used to, = 0 otherwise. The list of independent variables include media language selection, shopping frequency, percentage of online shopping, job security concern, plus immigration status (using the same definition as in survey 1) along with other demographic characteristics. Table 5 provides full definitions of the variables used in the survey 2 model estimation, and Table 6 reports the summary statistics.

Table 5. List of variables for statistical analysis using survey 2 data

Variables	Description & Values
Stocking	=1 if household stocks more food during outbreak than it used to; =0 otherwise
Languages	=1 browse COVID-19 news in multiple languages; =0 otherwise
Frequency	Offline shopping frequency. 0="Pure online", 1="Once a month", 2="Once every 2 weeks", 3="Once every week", 4="More than once per Week"
Online	Percentage of online grocery shopping during the pandemic
Job	(7-pt scale) with 1 being "not concerned at all", 7 being "very concerned" about job security during outbreak
Immigrant	=1 respondent or at least one parent was born outside current country of residence; =0 otherwise
Gender	=1 for female; =0 otherwise.
Caucasian	=1 if self-identified as this ethnicity group; =0 otherwise

Table 6. Descriptive statistics for the list of variables in Table 5

Variables	Mean		Median		Std. Dev		Min		Max	
	Canada	USA	Canada	USA	Canada	USA	Canada	USA	Canada	USA
Stocking	0.601	0.636	1	1	0.490	0.481	0	0	1	1
Languages	0.399	0.179	0	0	0.490	0.383	0	0	1	1
Frequency	2.803	2.535	3	3	1.464	1.336	0	0	9	9
Online	0.302	0.341	0.2	0.2	0.322	0.350	0	0	1	1
Job	4.353	3.536	5	4	1.949	1.833	1	1	7	7
Immigrant	0.316	0.079	0	0	0.465	0.270	0	0	1	1
Gender	0.480	0.490	0	0	0.501	0.502	0	0	1	1
Caucasian	0.546	0.815	1	1	0.500	0.390	0	0	1	1

The probability that a respondent i would engage in food stockpiling during the outbreak is specified as

$$Pr(Stocking_i = 1) = \frac{\exp(x_i\gamma)}{1 + \exp(x_i\gamma)} \tag{3}$$

where

$$x_i\gamma = \gamma_0 + \gamma_1 Languages_i + \gamma_2 Frequency_i + \gamma_3 Online_i + \gamma_4 Job_i + \gamma_5 Immigrant_i + \gamma_6 Gender_i + \gamma_7 Caucasian_i \tag{4}$$

According to the full estimation output reported in Table 7, responses to survey 2 revealed much bigger behavioural difference between Canada and U. S. customers after passing the initial outbreak period. The only common factor which significantly affects the propensity of food stocking in both countries is the concern for job security. The estimated coefficients (γ_4) are 0.353 for Canadian respondents and 0.332 for U.S. respondents, both of which can be converted to the exponentiated level around 1.4. Thus all else being equal, the odds of food stocking are 40% higher for a (U.S. or Canadian) customer who is more concerned about job security during the pandemic. We believe this finding has important economic policy implication during the pandemic. It was found in survey 1 that first learning of COVID-19 in non-English media significantly affects a consumer (either in U.S. or Canada)'s initial perception regarding the seriousness of this pandemic. We found in survey 2 that similar effect continues influencing a Canadian customer's decision to stockpiling food during the outbreak. The estimated coefficient of γ_1 equals 0.878 for Canadian respondents, which suggests a huge quantitative effect as

$\exp(\gamma_1) = 2.407$: all else being equal, the odds of food stocking are 140% higher for a Canadian resident who has been following COVID-19 news in multiple languages during the outbreak. Canadians who conducted greater proportion of grocery shopping online are also more likely to stockpiling food, while the effect of offline shopping frequency goes the other direction. Caucasian customers in Canada are found to be less likely of food stocking. Yet none of these factors has statistically significant impact on American customers' food stockpiling decision. Data from U.S. respondents only suggested that female customers are less likely to stockpiling.

Table 7. Binary Logistic Regression Output using Survey 2 Data

Variables	Parameters	Estimated Coefficient		Std. Error		P-Value	
		(Canada)	(USA)	(Canada)	(USA)	(Canada)	(USA)
Intercept	Υ_0	-0.509	-0.924	0.867	0.733	0.557	0.208
Languages	Υ_1	0.878	0.790	0.441	0.593	0.047*	0.182
Frequency	Υ_2	-0.319	0.165	0.163	0.162	0.050*	0.308
Online	Υ_3	1.295	0.512	0.712	0.580	0.069*	0.377
Job	Υ_4	0.353	0.332	0.114	0.113	0.002*	0.003*
Immigrant	Υ_5	-0.575	-0.071	0.512	0.855	0.262	0.933
Gender	Υ_6	0.491	-1.179	0.419	0.398	0.241	0.003*
Caucasian	Υ_7	-0.765	0.418	0.448	0.541	0.088*	0.440

Note: * indicates statistical significance at alpha level of 0.1 or less.

6. Conclusion

6.1 Summary of Research Findings

Despite near 100% reach of internet in both countries, Hypothesis #1 is only found to be supported by Canadian participants' responses to survey 1. Social media is the only media source of initial COVID-19 information which significantly affects the likelihood of a Canadian perceiving the situation to be serious at the beginning of outbreak. Such effect was not found from U.S. participants in survey 1. Hypothesis #2 was supported by estimation results using survey 1 data from both U.S. and Canadian participants. First learning of COVID-19 from non-English media report significantly increases the likelihood of a consumer having early perception of a serious outbreak. As both countries under our study have another language other than English to be official or popular language (French in Canada, Spanish in U.S.), we tried to seek additional support to this hypothesis from the "outside country of residence" information source. Due to the small proportion of respondents (Canada 11%, U.S. 4% as in Table 3) that fall into the classification in survey 1, first learning COVID-19 from outside country of residence was not found to be a significant factor influencing a consumer's initial perception of the outbreak to be serious. We did find that a Canadian who has stronger immigrant background as defined in Table 1 is more likely to perceive the pandemic to be serious at the beginning of outbreak, which could be considered as additional support to Hypothesis #2.

Hypothesis #3 did not receive much support from analyzing participants' responses to survey 2. In this round of survey, participants were asked again if they have been following and exchange COVID-19 related information via multiple media types, media reports in different languages, and especially with people outside participants' country of residences. None of these factors were found to significantly influence a (U.S. or Canada) consumer's propensity to food stockpiling. Neither is a participant's immigration background affects the stockpiling decision. The only exception is that following COVID-19 news in multiple languages would increase the likelihood of a consumer in Canada to engage in food stocking. Participants were also asked to state their opinion (concern or satisfaction) towards multiple social-economic issues related to COVID-19: government official's public health advisory, pandemic relief social benefit, job security concern during the outbreak, and the social behaviour norm post pandemic. Only the concern for job security is found to have significant effect on increasing the likelihood that a participant (U.S. or Canada) would engage in food stockpiling during the pandemic. We believe this finding provides support to hypothesis #4.

6.2 Limitations and Future Researches

Although Mechanical Turk workers are more diverse than the undergraduate student subject pool, it is however significantly less diverse than the general US or Canadian population (Hitlin, 2016). Figure 10 illustrates the birth decades of Canadian participants in survey 1, which were significantly younger and the pattern was similar for U.S. participants. The high percentage of Caucasian participants in survey 2 (55% in Canada, 82% in U.S. according to Table 2) also suggest less ethnicity diversification.

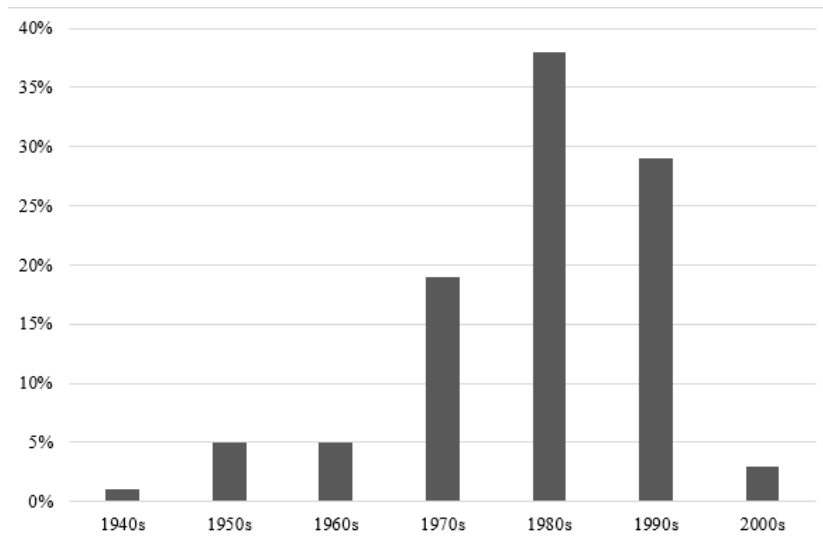


Figure 10. Birth decades of Canadian MTurk participants for survey 1

Even with such participant profile we are still able to identify some significant factors influencing consumer behaviour under such unprecedented pandemic outbreak. However we believe this presents a major challenge to our research question regarding consumers' information acquisition and exchange regarding COVID-19 through multiple sources that are tied specifically to their ethnicity backgrounds. Surveying from a more diversified subject pool is certainly an important direction of future research in order to obtain a more comprehensive understanding on how the ethnicity-related factors (Laroche, Kim, & Clarke, 1997) affect consumers' information processing and stockpiling behaviour under such a global pandemic.

The current paper focuses on the comparison between U.S. and Canadian consumers under the pandemic outbreak. Greater resources including time, funding and human capitals could allow us to expand the scope of primary data collection by covering more countries over different continents. For example, it would be interesting to conduct similar comparison between consumers from Europe such as U.K, Italy, versus those from Asia or Oceania (e.g. Australia). Larger data size across multiple countries/ regions could also allow the employment of more advanced statistical models (e.g. structural equation models, SEM) for validity and reliability of the empirical investigations. Findings from those future research directions, in combined with insights collected from the current paper, would help weave a complete "map" to fully understand the short term as well as long term influences of COVID-19 (beginning, during and post outbreak) on consumers' information acquisition and shopping behaviour.

Acknowledgments

The survey studies reported in this manuscript are sponsored by University of Guelph COVID-19 Research Development and Catalyst Fund awarded in May 2020.

References

- Assuncao, J. L., & Meyer, R. J. (1993). The rational effect of price promotions on sales and consumption. *Management Science*, 39(5), 517-535. <https://doi.org/10.1287/mnsc.39.5.517>
- Azadegan, A., Patel, P. C., Zangouinezhad, A., & Linderman, K. (2013), The effect of environmental complexity and environmental dynamism on lean practices. *Journal of Operations Management*, 31(4), 193-212. <https://doi.org/10.1016/j.jom.2013.03.002>
- Barello, S. H. (2014). Consumer spending and US employment from the 2007-2009 recession through 2022.

- Monthly Labor Review*, 137(10), 1-36. <https://doi.org/10.21916/mlr.2014.34>
- Bell, D. R., Chiang, J., & Padmanabhan, V. (1999). The decomposition of promotional response: An empirical generalization. *Marketing Science*, 18(4), 504-526. <https://doi.org/10.1287/mksc.18.4.504>
- Bendoly, E., & Hur, D. (2007). Bipolarity in reactions to operational 'constraints': OM bugs under an OB lens. *Journal of Operations Management*, 25(1), 1-13. <https://doi.org/10.1016/j.jom.2005.08.004>
- Besson, E. K. (2020). COVID-19 (Coronavirus): Panic buying and its impact on global health supply chains. *World Bank*. Retrieved from <https://blogs.worldbank.org/health/covid-19-coronavirus-panic-buying-and-its-impact-global-health-supply-chains>
- Blattberg, R. C., Eppen, G. D., & Lieberman, J. (1981). A theoretical and empirical evaluation of price deals for consumer nondurables. *Journal of Marketing*, 45(1), 116-129. <https://doi.org/10.1177/002224298104500111>
- Bogart, N. (2020). Nobody was ready': Retail Council of Canada urges consumers to stop panicking as grocers stripped bare. *CTV news*. Retrieved from <https://www.ctvnews.ca/health/coronavirus/nobody-was-ready-retail-council-of-canada-urges-consumers-to-stop-panicking-as-grocers-stripped-bare-1.4851901>
- Boizot, C., Robin, J. M., & Visser, M. (2001). The demand for food products: an analysis of interpurchase times and purchased quantities. *The Economic Journal*, 111(470), 391-419. <https://doi.org/10.1111/1468-0297.00613>
- Breiter, A., & Huchzermeier, A. (2015). Promotion planning and supply chain contracting in a high–low pricing environment. *Production and Operations Management*, 24(2), 219-236. <https://doi.org/10.1111/poms.12250>
- Charlton, E. (2020). How experts are fighting the Coronavirus 'infodemic'. *World Economic Forum*. Retrieved from <https://www.weforum.org/agenda/2020/03/how-experts-are-fighting-the-coronavirus-infodemic/>
- Chen, Y., Rajabifard, A., Sabri, S., Potts, K. E., Laylavi, F., Xie, Y., & Zhang, Y. (2020). A discussion of irrational stockpiling behaviour during crisis. *Journal of Safety Science and Resilience*, 1(1), 57-58. <https://doi.org/10.1016/j.jnlssr.2020.06.003>
- Cleveland, M., & Xu, C. (2019). Multifaceted acculturation in multiethnic settings. *Journal of Business Research*, 103, 250-260. <https://doi.org/10.1016/j.jbusres.2019.01.051>
- Easley, D., & Kleinberg, J. (2010). *Networks, crowds, and markets reasoning about a highly connected world*. New York, NY: Cambridge University Press.
- El-Assal, K. (2020). Over 80% of Canada's population growth from immigration. *CIC news*. Retrieved from <https://www.cicnews.com/2020/06/over-80-of-canadas-population-growth-from-immigration-0614770.html>
- Elmore, C. (2017). Irma: Frenzied buying in Palm Beach, St. Lucie regions led state. *The Palm Beach Post*. Retrieved from <https://www.palmbeachpost.com/business/data-firm-tracked-how-hurricane-irma-storesales-boomed-went-bust/LIDVXIL3qlqJGLlaosfSiL/>
- Gupta, S. (1988). Impact of sales promotions on when, what, and how much to buy. *Journal of Marketing Research*, 25(4), 342-355. <https://doi.org/10.1177/002224378802500402>
- Helsen, K., & Schmittlein, D. C. (1992). Some characterizations of stockpiling behavior under uncertainty. *Marketing Letters*, 3, 5-16. <https://doi.org/10.1007/BF00994076>
- Hendel, I., & Nevo, A. (2006). Measuring the implications of sales and consumer inventory behavior. *Econometrica*, 74(6), 1637-1673. <https://doi.org/10.1111/j.1468-0262.2006.00721.x>
- Hendricks, K. B., Jacobs, B. W., & Singhal, V. R. (2019). Stock market reaction to supply chain disruptions from the 2011 Great East Japan Earthquake. *Manufacturing & Service Operations Management*, 22(4), 683-699. <https://doi.org/10.1287/msom.2019.0777>
- Hitlin, P. (2016). Research in the Crowdsourcing Age, a Case Study. *Pew Research Center*. Retrieved from <http://www.pewinternet.org/2016/07/11/research-in-the-crowdsourcing-age-a-case-study/>
- Ho, T. H., Tang, C. S., & Bell, D. R. (1998). Rational shopping behavior and the option value of variable pricing. *Management Science*, 44(12), 145-160. <https://doi.org/10.1287/mnsc.44.12.S145>
- Hobson, C. J., Kamen, J., Szostek, J., Nethercut, C. M., Tiedmann, J. W., & Wojnarowicz, S. (1998). Stressful

- life events: A revision and update of the Social Readjustment Rating Scale. *International Journal of Stress Management*, 5(1), 1-23. <https://doi.org/10.1023/A:1022978019315>
- Huchzermeier, A., Iyer, A., & Freiheit, J. (2002). The supply chain impact of smart customers in a promotional environment. *Manufacturing & Service Operations Management*, 4(3), 228-240. <https://doi.org/10.1287/msom.4.3.228.7755>
- Iyer, A. V., & Ye, J. (2000). Assessing the value of information sharing in a promotional retail environment. *Manufacturing & Service Operations Management*, 2(2), 128-143. <https://doi.org/10.1287/msom.2.2.128.12350>
- Jurkowitz, M., & Mitchell, A. (2020). Cable TV and COVID-19: How Americans perceive the outbreak and view media coverage differ by main news source. *Pew Research Center*. Retrieved from <https://www.journalism.org/2020/04/01/cable-tv-and-covid-19-how-americans-perceive-the-outbreak-and-view-media-coverage-differ-by-main-news-source/>
- Laroche, M., Kim, C. K., & Clarke, M. (1997). The effects of ethnicity factors on consumer deal interests: An empirical study of French-and English-Canadians. *Journal of Marketing Theory and Practice*, 5(1), 100-112. <https://doi.org/10.1080/10696679.1997.11501754>
- Loxton, M., Truskett, R., Scarf, B., Sindone, L., Baldry, G., & Zhao, Y. (2020). Consumer behaviour during crises: preliminary research on how coronavirus has manifested consumer panic buying, herd mentality, changing discretionary spending and the role of the media in influencing behaviour. *Journal of Risk and Financial Management*, 13(8), 166-187. <https://doi.org/10.3390/jrfm13080166>
- Rocca, R. (2020). Ontario reopening Stage 3: Gathering limit increasing as indoor dining, gyms permitted to reopen. *Global News*. Retrieved from <https://globalnews.ca/news/7169242/ontario-coronavirus-stage-3-reopening-plan/>
- Ross, J., Irani, L., Silberman, M. S., Zaldivar, A., & Tomlinson, B. (2010). Who are the crowdworkers? Shifting demographics in Mechanical Turk. *CHI'10 extended abstracts on Human factors in computing systems*, 2863-2872. <https://doi.org/10.1145/1753846.1753873>
- Rumbaut, R. G. (2004). Ages, life stages, and generational cohorts: decomposing the immigrant first and second generations in the United States. *International Migration Review*, 38(3), 1160-1205. <https://doi.org/10.1111/j.1747-7379.2004.tb00232.x>
- Scamman, K. (2019). Immigration Trends and Language Diversity in the United States (Infographic). *Teletlanguage.com*. Retrieved from <https://teletlanguage.com/immigration-trends-and-language-diversity-in-the-united-states-infographic/>
- Shapira, D., Coco, J., & Sorbara, T. (2020). Canada: Impacts Of COVID-19 On Landlord And Tenant Obligations In Commercial Leases. *Wildeboer Dellelce LLP*. Retrieved from <https://www.mondaq.com/canada/litigation-contracts-and-force-majeure/927008/impacts-of-covid-19-on-landlord-and-tenant-obligations-in-commercial-leases>
- Snyder, L. V., Atan, Z., Peng, P., Rong, Y., Schmitt, A. J., & Sinsoyals, B. (2015). OR/MS models for supply chain disruptions: A review. *IIE Transactions*, 48(2), 89-109. <https://doi.org/10.1080/0740817X.2015.1067735>
- Sterman, J. D., & Dogan, G. (2015). "I'm not hoarding, I'm just stocking up before the hoarders get here.": Behavioral causes of phantom ordering in supply chains. *Journal of Operations Management*, 39-40, 6-22. <https://doi.org/10.1016/j.jom.2015.07.002>
- Sweeny, K., & Shepperd, J. A. (2007). Do people brace sensibly? Risk judgments and risk prevalence. *Personality and Social Psychology Bulletin*, 33(8), 1064-1075. <https://doi.org/10.1177/0146167207301024>
- Tokar, T., Aloysius, J., Williams, B., & Waller, M. (2014). Bracing for demand shocks: An experimental investigation. *Journal of Operations Management*, 32(4), 205-216. <https://doi.org/10.1016/j.jom.2013.08.001>
- Wernerfelt, B., & Karnani, A. (1987). Competitive strategy under uncertainty. *Strategic Management Journal*, 8(2), 187-194. <https://doi.org/10.1002/smj.4250080209>
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. Cambridge, MA: MIT press.
- Yuen, K. F., Wang, X., Ma, F., & Li, K. X. (2020). The psychological causes of panic buying following a health crisis. *International Journal of Environmental Research and Public Health*, 17(10), 3513.

<https://doi.org/10.3390/ijerph17103513>

Zheng, R., Shou, B., & Yang, J. (2020). Supply disruption management under consumer panic buying and social learning effects. *Omega*, 102238. <https://doi.org/10.1016/j.omega.2020.102238>

Zhuang, H., Leszczyc, P. T. P., & Lin, Y. (2018). Why is price dispersion higher online than offline? The impact of retailer type and shopping risk on price dispersion. *Journal of Retailing*, 94(2), 136-153. <https://doi.org/10.1016/j.jretai.2018.01.003>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

The Impact of Employee Empowerment on Job Engagement: Evidence from Jordan

Nadia Alhozi¹, Nayel Al Hawamdeh², & Malek Al-Edenat²

¹ Engineering Studies Manager at Aqaba Development Corporation, Jordan

² Faculty of Business, Business Administration Department, Tafila Technical University, At-Tafila, Jordan

Correspondence: Nayel Al Hawamdeh, Faculty of Business, Tafila Technical University, AT-Tafila, P.O.Box179, Tafila, 66110, Jordan.

Received: November 27, 2020

Accepted: January 6, 2021

Online Published: January 21, 2021

doi:10.5539/ibr.v14n2p90

URL: <https://doi.org/10.5539/ibr.v14n2p90>

Abstract

The objective of this study was to investigate the impact of employee empowerment (i.e., structural and psychological empowerment) on job engagement (i.e., physical, emotional, and cognitive engagement). A quantitative approach was adopted in order to achieve such a study aim, and the data was collected via an online questionnaire. The sample of this study consisted of 300 employees from the Aqaba Special Economic Zone Authority (ASEZA), one of the biggest Jordanian organisations in Aqaba, with a total of 293 questionnaires retrieved and 7 excluded due to their being invalid for statistical analysis. This yielded a total of 286 accepted questionnaires, or 95.3% of the total questionnaires provided. Moreover, the Statistical Analysis Package for Social Science (SPSS) was used for data analysis, the results of which indicating that the level of implementation of employee empowerment dimensions had a medium rate amongst ASEZA's employees, as the structural empowerment was applied more than the psychological empowerment. Furthermore, the level of present job engagement dimensions also had a medium rate amongst the surveyed ASEZA employees. The results also indicated there to be a significant statistical impact by structural and psychological empowerment on physical engagement and cognitive engagement, whilst there was no significant statistical impact made by structural empowerment on emotional engagement compared to psychological empowerment, which had a significant statistical impact on it. In light of the findings of this research, ASEZA managers must pay more attention to the role of empowerment of employees in promoting work engagement, since this enhances the organisation's ability to achieve the appropriate strategy and gain a comparative advantage.

Keywords: employee empowerment, psychological empowerment, structural empowerment, job engagement, Jordan, ASEZA

1. Introduction

In today's competitive global environment, it takes more than following up operational success for any given business: rather, if any organisation wants to increase its profits and improve productivity, it needs to engage their people who present the best ideas, insights, and solutions; in other words, employees' empowerment is essential for the organisation (Wang et al., 2019), some researchers even suggesting that empowerment may be considered as an antecedent of engagement (Macey & Schneider, 2008).

This study attempts to increase our knowledge on the requirement for employees to be empowered, as well as on the subsequent benefits that will arise concerning job engagement as a result. This study will also present additional information concerning employee empowerment in regard to stakeholders who are keen to aid in the realisation of empowerment amongst employees. Moreover, this study will become a source of secondary study to other researchers who are interested in employee empowerment and its impact on job engagement within their organisation; indeed, our findings will help to improve their capability to participate in future decision-making.

Considering employee empowerment and job engagement are entirely relevant to one another, and are key when it comes to enhancing employees' outcomes (Guan & Frenkel, 2018; Guest, 2014; Yin, 2018), employees would be more willing to perform tasks that contribute to the organisation's overall success (Judge, Erez, Bono & Thoresen, 2002) by improving empowerment levels and engagement perceptions amongst employees within a given firm (Cavus & Gokcen, 2015).

Empowerment is an important component of fruitful outcomes, productivity, and development within any business (Hunjra, Haq, Akbar & Yousaf, 2011), and employee empowerment specifically is largely viewed as a persuasive practice that expands performance through the expansion of chances of investment and contribution in important decision-making processes. This entire process is centred on creating trust, inspiration, being involved in decision-making, and eliminating any limits amongst employees and top managers (Meyerson & Dewettinck, 2012). Notably, empowerment can be defined as ‘providing the employees of an organisation the authorisation to manage their day-by-day work activities’ (Liden, Wayne & Sparrowe, 2000).

The remainder of this paper is structured as follows: Section 2 discusses the literature review concerning job engagement and empowered employee, followed by Section 3, which introduces the research questions and research hypothesis. Section 4 discusses the study model, whilst Section 5 describes the research methodology that has been adopted in this research. Subsequently, Section 6 provides research results and analysis, followed by Section 7’s discussion of these results. Next, Section 8 provides an overview of the research implications and recommendations, and Section 9 focuses on study limitations and future research. Finally, the references list for this research is detailed in Section 10.

2. Literature Review

2.1 Job Engagement

Engagement can be defined as ‘the creation of opportunities for communication between employees largely and easily’, and also expresses the establishment of an encouraging and motivating environment that meets the employees’ ‘desires to communicate with their work’, in addition to caring for proper job performance. Indeed, as a whole, this concept expresses flexibility and continuous improvement (MacLeod, Quinn & Clarke, 2009). It was the researcher Kahn, who explored the emergence of the concept of correlation and associated it with the term ‘personal attachment’. Here, he expresses the harnessing of the capabilities of employees to complete their roles through the employee’s use of the concept of physical correlation. Kahn also knew that a lack of correlation compromises an employee’s role to perform emotionally and mentally (Wefald, 2008).

In his seminal paper, Kahn (1990, p.694) defined personal engagement as ‘the harnessing of organisation members’ selves to their work role; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances’. Notably, the concept of job engagement initially arose in the attempt to reduce staff fatigue and increase their entertainment by linking them with their work and creating a team spirit that contributes to achieving desired goals (Jeung, 2011). In this case, this concept is achieved when balancing physical needs and working conditions through successful employees’ engagement (Macey & Schneider, 2008). Indeed, a given company’s success depends primarily on management, and they are the decision-makers; the more aware and conscientious management is when dealing with employees, the greater their success in achieving its goals. As for modern management, an improved thinking style that promotes efficiency and effectiveness is required, and, here, the success of this type of management is measured by the extent to which the company’s employees are interested in working (Sweem, 2009).

As a pioneer in job engagement literature, Kahn (1990) suggested three dimensions of job engagement based on previous studies, these being physical engagement, emotional engagement, and cognitive engagement. Hence, we can see here that ‘engagement’ comprises emotional, cognitive, and behavioural components, meaning that engaged employees are naturally invested in organisations through their body, mind, and soul. However, the majority of the existing literature has addressed job engagement as one block, rather than in its three dimensions (Deepa, 2020). Notably, physical engagement refers to the physical aspect of job engagement (i.e., the physical energies exerted by employees to fulfil their tasks) (Kular, Gatenby, Rees, Soane, & Truss, 2008); or, in the other words, it concerns the willingness of the employees to make extra efforts for the employer. Meanwhile, emotional engagement involves having good relations with supervisors and co-workers and feeling empathy for others (Abraham, 2012), whilst the cognitive dimension is seen as employees’ beliefs concerning the organisation, and refers to the concentration of an individual’s intellectual and absorption focused towards organisational outcomes (Rich, Lepine & Crawford, 2010; Kahn, 1990).

2.2 Employee Empowerment

Empowerment is a multifaceted idea that can be characterised by individual, hierarchical, and cultural/network viewpoints (Peterson & Zimmerman, 2004; Perkins & Zimmerman, 1995). At the individual level, empowerment encourages the accomplishment of a person’s persona; objectives through cooperation with others (Maton & Salem, 1995; Perkins & Zimmerman, 1995). When it comes to the representative setting, empowerment is defined as ‘a type of employee association activity and concentrated on task-based inclusion and attitudinal change’ (Wilkinson, 1998).

Khalili, Sameti & Sheybani (2016) indicate that empowerment can be defined as an administrative method by which managers and other organising members participate in influencing decision-making (i.e., the decision-making cooperation). This definition is consistent with the definition given by Baird & Wang (2010, p. 577), who define employee empowerment as ‘the delegation of power and responsibility from higher levels in the organisational hierarchy to lower level employees, especially the power to make decisions’. Meanwhile, Thamizhmanii & Hasan (2010) states that employee empowerment concerns allowing employees the opportunity to have responsibility in decision-making. As can be seen from the above, empowerment is a well-established term and was established more than three decades ago. Extant literature additionally points out that there are two types of employee empowerment: structural empowerment and psychological empowerment (Mathieu, Gilson & Ruddy, 2006).

Structural empowerment is defined as ‘a set of activities and practices carried out by management that give power, control, and authority to their subordinates, giving them access to information, resources, support, and opportunities to learn and develop’ (Chen & Chen, 2008), whilst psychological empowerment has been defined as ‘the increase in intrinsic motivation in the performance of the function, based on four concepts: the meaning of the task, competence, self-determination, and impact’ (Thomas & Velthouse, 1990). This latter type of empowerment guides the approach of the individual towards the performance of his function, and, on this note, it should be stressed that psychological empowerment is not a characteristic of personality; rather, it is a defined set of cognitions based on a certain context of work (Spreitzer, 1995).

3. Research Question and Hypotheses

This study is expected to contribute to the literature, particularly that concerning the Jordanian context; after all, there is an urgent need for more research to be conducted within this country (Al Hawamdeh & Al-edenat, 2019). Notably, ASEZA is an independent institution that handles the development and management of the Aqaba Special Economic Zone and provides integrated services to investors and registered companies that have a high number of employees (Karasneh & Al-Momani, 2020). Hence, within this study, it was important to measure the impact of employees’ empowerment on job engagement with its dimensions, since it is clearly highly important for this organisation to create a model for its proper management to meet the highest level of job engagement, in turn resulting in high productivity and efficiency and ultimately impacting their growth and development. Considering the importance of employees’ job engagement in the Jordanian organisations (e.g., ASEZA) and its impact in motivating employees and increasing their loyalty towards the business, the researchers constantly kept in mind the growing importance of the concept of the organisation’s employees empowerment and the importance of their ownership in obtaining job engagement.

The study problem can be surmised using the following main question:

RQ1: What is the impact of Employee Empowerment (i.e., structural and psychological empowerment) on job engagement (i.e., physical engagement, emotional engagement, and cognitive engagement) in ASEZA?

This can be broken down into the following sub-questions:

What is the impact of employee empowerment (i.e., structural and psychological empowerment) on physical engagement in ASEZA?

What is the impact of employee empowerment (i.e., structural and psychological empowerment) on emotional engagement in ASEZA?

What is the impact of employee empowerment (i.e., structural and psychological empowerment) on cognitive engagement in ASEZA?

To achieve the study objective and to reach its specific goals in determining the effect of the independent variable on the dependent variable, we developed study hypotheses based on the study problem and its questions.

Our main hypothesis is that there is no statistically significant impact of employee empowerment (i.e., structural and psychological empowerment) on job engagement (i.e., physical engagement, emotional engagement, and cognitive engagement) at the level of $\alpha \leq 0.05$.

This main hypothesis is further partitioned into six hypotheses:

H0.1: There is no statistically significant impact of structural empowerment on physical engagement at the level of $\alpha \leq 0.05$.

H0.2: There is no statistically significant impact of psychological empowerment on physical engagement at the level of $\alpha \leq 0.05$.

H0.3: There is no statistically significant impact of structural empowerment on emotional engagement at the level of $\alpha \leq 0.05$.

H0.4: There is no statistically significant impact of psychological empowerment on emotional engagement at the level of $\alpha \leq 0.05$.

H0.5: There is no statistically significant impact of structural empowerment on cognitive engagement at the level of $\alpha \leq 0.05$.

H0.6: There is no statistically significant impact of psychological empowerment on cognitive engagement at the level of $\alpha \leq 0.05$.

4. The Study Model

Figure (1) illustrates the model adopted in this study. The independent variables'—both structural empowerment and psychological empowerment—influence on the dependent variable, job engagement (i.e., physical engagement, emotional engagement, and cognitive engagement) is depicted below.

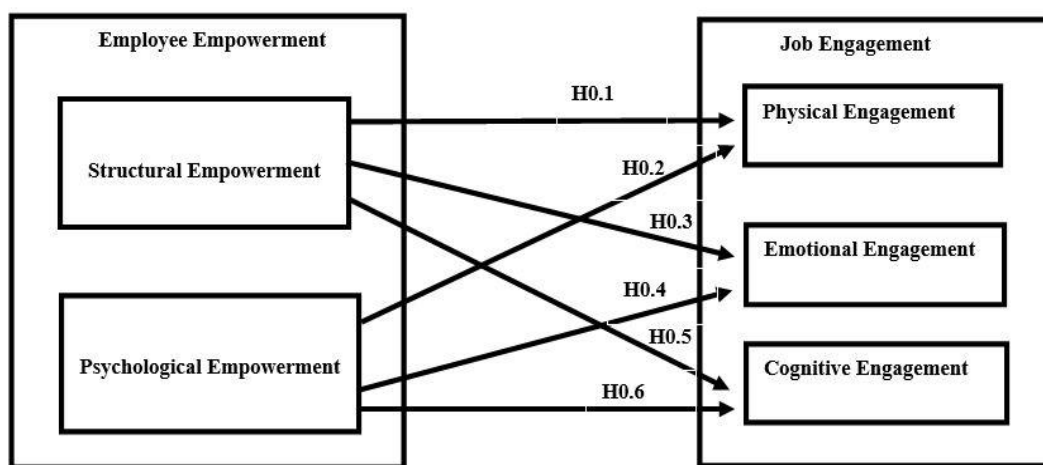


Figure 1. The Study Model

The Model Source: Prepared by the researchers to cover study variables based on the study of each. Laschinger,, Finegan, Shamian, & Wilk, (2001), Rich et al., (2010), Spreitzer (1995).

5. Methodology

5.1 Study Design

The deductive measure was used as a general approach, and, more specifically, the quantitative method of a questionnaire was used for gathering data from the sample population. Further, the program used for measuring the data was the Statistical Package for Social Science (Version 26).

5.2 Questionnaire Design

The data was obtained via the development of a special questionnaire for the subject of this study. By referring to the previous studies in this field included in the table with the aim of covering all aspects addressed by the theoretical framework, questions, and hypotheses on which the study was based, Table 1 demonstrates the distribution of the paragraphs of each element separately and their number, as shown in the questionnaire. Moreover, the responses of the study sample were distributed according to the Likert Quintile Scale, which indicates the extent of the respondent's agreement with the questionnaire paragraphs (i.e., 'strongly agree' = 5, 'agree' = 4, 'neutral' = 3, 'disagree' = 2, and 'strongly disagree' = 1).

Table 1. The Source of Measurement Items

Variable	Items	Reference
Structural Empowerment	19	Laschinger et al., (2001)
Psychological Empowerment	12	Spreitzer (1995)
Physical Engagement	6	Rich et al., (2010)
Emotional Engagement	6	Rich et al., (2010)
Cognitive Engagement	6	Rich et al., (2010)

5.3 Data Collection Procedures

Google Forms was used to collect data from a sample of employees (both men and women and spanning from ASEZA). The sample type was purposive, and it comprised a high number of employees (roughly 2,047) based in the human resource department in ASEZA. The sample consisted of 300 employees from four various jobs . A total of 293 questionnaires retrieved and 7 excluded due to their being invalid for statistical analysis. This yielded a total of 286 accepted questionnaires, or 95.3% of the total questionnaires provided, as can be seen in Table 2.

Table 2. Profiles of Respondents

Variable	Level / Category	Number	Percentage %
Gender	Male	214	74.8%
	Female	72	25.2%
Age	Under 30 years	1	0.3%
	30- 39 years	47	16.4%
	40-49 years	157	54.9%
	50 years or more	81	28.3%
Education	Diploma or below	42	14.7%
	Bachelor	181	63.3%
	Master's degree	55	19.2%
Job Position	PhD degree	8	2.8%
	Accountant	21	7.3%
	Programmer	11	3.8%
Years of Experience	Frontline employee	146	51.0%
	Specialist	108	37.8%
	Less than 5	4	1.4%
	5- less10	33	11.5%
	10- less 15	69	24.1%
	15 years or more	180	62.9%
Total of accepted questionnaires from participants		286	100%

5.4 Reliability and Normality

The Cronbach's Alpha was used for internal consistency so as to ensure that the questionnaire was valid as a data collection tool for the current study, its coefficient notably being used to measure the level of internal consistency of the resolution of the paragraphs. This can be seen in Table 3.

Reliability was tested using the Cronbach-Alpha coefficient to determine the degree of consistency and internal stability in the scale used to measure the variables of the hypotheses. According to Hair, Black, Babi, Anderson & Tatham (2014), if the Cronbach-Alpha coefficient is more than 60%, then the analysis and interpretation of the data is reliable.

Table 3. Internal consistency coefficients (Cronbach Alpha)

Variables	Stability Coefficient
Structural Empowerment	.826
Psychological Empowerment	.908
Physical Engagement	.820
Emotional Engagement	.899
Cognitive Engagement	.859

As can be seen in Table 3, the security coefficients of the variables were higher than 60%, which shows internal consistency between the paragraphs. Further, 94.8%, which is higher than 60%, also indicates inside consistency

amongst all the passages, which affirms the legitimacy of the survey in theory tested (Sekaran & Bougie, 2016). As can be seen in Table 4, the dependent variable (as well as all its dimensions) follow the normal distribution, since the values of Kolmogorff-Smirnov Z (0.056, 0.074) are less than 1.96. Further, the significant Sig for each of them was less than 0.05, which shows the distribution for the questions was normal.

Table 4. Normal Distribution of Data

Normal Distribution of Data		Employee Empowerment	Job Engagement
N		286	286
Normal Parameters	Mean	3.4734	3.4910
	Std. Deviation	.62385	.64138
Test Statistic		.056	.074
Asymp. Sig. (2-tailed)		.000 ^c	.001 ^c

6. Analysis and Results

6.1 Level of Employee Empowerment and Job Engagement at ASEZA

Table 5 shows the mathematical averages of respondents' answers to the employee empowerment questionnaire. The first variable is structural empowerment, which boasted an average of 3.66 and a medium rating. Finally, psychological empowerment had an average of 3.28 and a medium rating. This indicates that the level of employee empowerment's dimensions' implementation was medium amongst the surveyed ASEZA employees.

Table 5. The arithmetical averages and standard deviations of Independent variables (Employee Empowerment)

Variables	Mean	Standard Deviation
Structural Empowerment	3.6622	.60585
Psychological Empowerment	3.2846	.91336
Total	3.4734	Medium

Table 6 shows the mathematical averages of the respondents' answers to the survey. The first variable is cognitive engagement with an average of 3.63 and a medium rating, the second being physical engagement, with an average of 3.56 and a medium rating. Finally, emotional engagement has an average of 3.28 and a medium rating. It indicates that the level of job engagement dimensions was medium amongst surveyed ASEZA's employees.

Table 6. The arithmetical averages and standard deviations of Independent variables (Job Engagement)

Variables	Mean	Standard Deviation
Physical Engagement	3.5586	.69005
Emotional Engagement	3.2839	.80295
Cognitive Engagement	3.6307	.69977
Total	3.4910	medium

6.2 Hypothesis Testing

6.2.1 Testing the First and second Hypothesis

Our first hypothesis is that there is no statistically significant impact of structural empowerment on physical engagement at the level of $\alpha \leq 0.05$, whilst our second is that there is no statistically significant impact of psychological empowerment on physical engagement at the level of $\alpha \leq 0.05$.

Notably, a multiple regression test was conducted in order to investigate the impact of employee empowerment (i.e., structural empowerment and psychological empowerment) on physical engagement, as shown in the following tables.

Table 7. (Model Summary)

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.652 ^a	.425	.421	.52527

Table 7 indicates that the value of the correlation coefficient of employee empowerment and the variable (i.e., physical engagement) was 65.2%, whilst the value of the coefficient of determination (R^2) is 0.425. Hence, 42.5% of the total variance is detailed in the model, whilst the rest is explained by other factors (Hair et al., 2014).

Table 8. Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.623	2	28.812	104.422	.000 ^b
	Residual	78.083	283	.276		
	Total	135.707	285			

Table 8 indicates that the value of F is 104.422, as well as that the statistical significance level is (0.00) and is thus less than (0.05).

Table 9. Table of Coefficient

Element	B	Std. Error	Beta	T	Sig.
(Constant)	1.456	.191		7.608	.000
Structural Empowerment	.240	.068	.211	3.515	.001
Psychological Empowerment	.372	.045	.493	8.207	.000

Table 9 shows the results of the coefficients measuring the impact of employee empowerment on physical engagement, and indicates that the calculated t values for structural empowerment and psychological empowerment were 3.515 and 8.207 respectively. Further, the level of significance of t sig was 0.001, 0.00. The table additionally shows there to be a statistically significant impact at ($\alpha \leq 0.05$) of structural empowerment and psychological empowerment on physical engagement.

Hence, with all of the above taken into account, the null hypotheses are rejected and the alternative hypotheses accepted. There was a notable impact of employee empowerment (i.e., structural and psychological empowerment) on physical engagement at a significant level ($\alpha \leq 0.05$).

6.2.2 Testing the Third and Fourth Hypothesis

Our third hypothesis was that there is no statistically significant impact of structural empowerment on emotional engagement at the level of $\alpha \leq 0.05$, whilst our fourth was that there is no statistically significant impact of psychological empowerment on emotional engagement at the level of $\alpha \leq 0.05$.

In order to investigate the impact of employee empowerment (i.e., structural and psychological empowerment) on emotional engagement, the multiple regression test was employed (as can be seen in the following tables).

Table 10. (Model Summary)

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.770 ^a	.593	.590	.51409

As can be seen in Table 10, the value of the coefficient of employee empowerment and the variable (i.e., emotional engagement) was 77.0%, whilst the value of the coefficient of determination (R^2) is 0.593. Hence, 59.3% of the total variance is explained by the model, the remainder being explained by other factors (Hair et al., 2014).

Table 11. Analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	108.953	2	54.477	206.127	.000 ^b
	Residual	74.793	283	.264		
	Total	183.746	285			

As can be seen in Table 11, the value of F is 206.127 and the statistical significance level is 0.00 (and is thus less than 0.05); hence, the null hypothesis is rejected and the alternative hypothesis accepted. Further, there was an observed impact of employee empowerment (i.e., structural and psychological empowerment) on emotional engagement at a significant level ($\alpha \leq 0.05$).

Table 12. Table of Coefficient

Element	B	Std. Error	Beta	T	Sig.
(Constant)	.813	.187		4.340	.000
Structural Empowerment	.115	.067	.087	1.718	.087
Psychological Empowerment	.624	.044	.710	14.059	.000

Table 12 details the results of the coefficients for the impact of employee empowerment on emotional engagement, as well as the calculated t values for structural and psychological empowerment (i.e., 1.718 and 14.059 respectively). The level of significance of t sig was notably 0.087, 0.00.

Hence, the alternative hypothesis (H0.3) is accepted, meaning there is no significant impact of structural empowerment on emotional engagement at the level of $\alpha \leq 0.05$; meanwhile, the null hypothesis (H0.4) is rejected. The acceptance of the former hypothesis suggests there to be an impact by psychological empowerment on emotional engagement at a significant level ($\alpha \leq 0.05$).

6.2.3 Testing the Fifth and Sixth Hypothesis

Our fifth hypothesis stated there to be no statistically significant impact of structural empowerment on cognitive engagement at the level of $\alpha \leq 0.05$, whilst our sixth hypothesis stated there was no statistically significant impact of psychological empowerment on cognitive engagement at the level of $\alpha \leq 0.05$.

Notably, in order to investigate the impact of employee empowerment (i.e., structural and psychological empowerment) on cognitive engagement, the multiple regression test was used, as can be seen below.

Table 13. (Model Summary)

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.480 ^a	.230	.225	.61613

Table 13 indicates the value of the coefficient of employee empowerment and the variable cognitive engagement to be 48.0%, whilst the value of the coefficient of determination (R²) is 0.230. Hence, 23.0% of the total variance is explained by the model, the rest being explained by other factors.

Table 14. Analysis of variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	32.019	2	16.009	42.173	.000 ^b
Residual	107.050	283	.380		
Total	139.069	285			

Table 14 the value of F to be 42.173 and the statistical significance level to be 0.00 (and thus less than 0.05).

Table 15. Table of Coefficient

Element	B	Std. Error	Beta	T	Sig.
(Constant)	1.937	.225		8.620	.000
Structural Empowerment	.252	.081	.218	3.126	.002
Psychological Empowerment	.234	.054	.306	4.379	.000

Table 15 shows the results of the coefficients in terms of employee empowerment's impact on cognitive engagement. The table shows the calculated t values for structural and psychological empowerment to be 3.126

and 4.379 respectively, whilst the level of significance of t sig was 0.002, 0.00. The table also shows that there was a statistically significant impact at $\alpha \leq 0.05$ in terms of structural and psychological empowerment on cognitive engagement.

Hence, the null hypotheses are rejected and the alternative hypotheses accepted: there was an impact of employee empowerment (i.e., structural and psychological empowerment) on cognitive engagement at a significant level ($\alpha \leq 0.05$).

7. Discussion

The results garnered indicated the mathematical averages of the respondents' answers to the Employee Empowerment survey. Here, the first variable was structural empowerment with an average of 3.66 and a medium rating, whilst psychological empowerment boasted an average of 3.28 and a medium rating. This indicates that the level of application of Employee Empowerment dimensions was medium amongst the surveyed ASEZA organisations.

Further to this, the result showed the mathematical averages of the respondents' answers to Job Engagement to be 3.63 and a medium rating and 3.56 and a medium rating for cognitive engagement and physical engagement respectively. Finally, emotional engagement had an average of 3.28 and a medium rating, which indicates that the level of job engagement dimensions is medium amongst the surveyed ASEZA organisations.

The results garnered here led to the rejection of the first and second hypotheses, whilst the alternative hypotheses were accepted. Thus, there an impact of employee empowerment (i.e., structural and psychological empowerment) could be found on physical engagement.

Furthermore, the findings of this research are consistent with the current literature, which has linked the empowerment of employees with their job engagement (e.g., Sharma & Singh, 2018; Jose & Mampilly, 2014; Albrecht & Andreatta, 2011). Moreover, this study is considered to be one of the first empirical studies investigating the impact of the two kinds of employee empowerment on the three job engagement dimensions.

Moreover, the findings garnered from this study are congruent with the conclusion that meaningful work and psychological meaningfulness highly influence employee engagement (Malik, Nawab, Naeem & Danish, 2010; Kahn, 1990), which links job resources, support, and feedback to organisational outcomes through engagement (Schaufeli & Bakker, 2004).

The analysis of the third hypothesis reveals there to be no statistical impact of structural empowerment on emotional engagement, which is not consistent with previous studies' results (e.g., Amor, Vázquez & Faiña, 2020; Laschinger, Wilk, Cho & Greco, 2009), which suggest structural empowerment to be a significant predictor of job engagement. However, analysis of the fourth hypothesis indicates there to be a statistically significant impact of psychological empowerment on emotional engagement—a finding that provides additional support for recent studies that have suggested psychological empowerment as a motivational factor for job engagement (Joo, Bozer, & Ready, 2019).

Finally, the result of the fifth and sixth hypotheses show there to be a statistically significant impact of structural empowerment and psychological empowerment on cognitive engagement, as is consistent with the study of Greco, Laschinger, & Wong (2006), which concludes that when an employee receives a high level of empowerment, this leads to increased job engagement.

8. Implications and Recommendations

This study contributes to the literature of human resources management by showing the impact of employee empowerment on job engagement in developing countries (e.g., Jordan); further, this study provides a set of managerial implications for achieving a better understanding of the influential factors that support job engagement. The empirical evidence of this research reveals that in ASEZA, employee empowerment and job engagement impact several dimensions within the workplace, including structural empowerment; this can be explained by the fact that there are many departments and heads of departments who are looking to be promoted and connect their engagement with the structural empowerment via promotion. Moreover, the employees in this organisation require a lot of care psychologically, as per the results, since structural empowerment is massively influential in motivating them and, in turn, increasing their job engagement.

This research provides several recommendations for the current study, according to the results of the study. One recommendation of the current research is to increase the application of the study variables, as well as to prioritise identifying employee empowerment and the necessity of its application in the work processes to improve employees' job engagement. Based on the first and second result of descriptive statistics, this research

also recommends maintaining the current level of employee empowerment by maintaining incentives and improving them whenever possible; this can also be done by seeking out more compensation processes to reach a higher level of engagement and loyalty amongst employees. Further, based on the second result of descriptive statistics, this study stresses the importance of implementing employee empowerment that increases the organisation's ability to achieve the appropriate strategy by knowing how to motivate their employees—especially leaders from senior and middle managers—to be more flexible in facing environmental challenges. Further, on the grounds of the sixth and eighth hypothesis results, it is advised that organisations' management should increase the communications between their employees in different levels to ensure each employee possesses enough information required to do his job properly, in turn increasing the likelihood of strong job engagement. Based on all of the results collectively, this study recommends the organisations' management to ensure the independence of their employees and provide them with the autonomy to involve at work and take decisions related to their responsibilities.

9. Limitations and Future Research

Through descriptive analysis and the emergence of a mean application of these variables (and on the grounds of previous studies with a similar result), we conclude that more studies should be conducted within organisations possessing a sample size larger than this study. In addition, expanding the level of employee engagement will enrich future studies and obtain accurate results on the impact of employee empowerment on employee engagement. This study thus concludes there to be a strong need to initiate further research involving various levels of employees in organisations distributed in many cities throughout Jordan. Further, this study also recommends focus being paid to empowering employees and its relationship with job engagement within more dimensions (e.g., loyalty; commitment), since it is important to ensure job engagement in each employee.

Whilst this research offers novel contributions to the understanding of the impact of employee empowerment on job engagement, it is still subject to some limitations—mainly concerning the generalisability of the results. This study was conducted in Jordan (a rich developing country), and, more specifically, in the ASEZA, and, whilst this context may undermine the generalisability of this research, it allowed for the controlling of cultural and industrial differences in the analysis. Therefore, conducting future research in other service organisations or public organisations in Jordan (or other countries) may lead to a more comprehensive understanding of the impact of employee empowerment on job engagement. Further, the study was prepared in light of the emerging Coronavirus pandemic, and so the data was collected during the spread of this pandemic. Therefore, it was not possible to add more participants, especially during lockdown periods—the factor that ultimately led us to the employment of one method of data collection (i.e., online questionnaires).

References

- Abraham, S. (2012). Job satisfaction as an antecedent to employee engagement. *sies Journal of Management*, 8(2).
- Al Hawamdeh, N., & Al-edenat, M. (2019). Determinants of Barriers to Knowledge Sharing in the Jordanian Hospitality Industry. *International Business Research*, 12(7), 121-132. <https://doi.org/10.5539/ibr.v12n7p121>
- Albrecht, S. L., & Andreetta, M. (2011). The influence of empowering leadership, empowerment and engagement on affective commitment and turnover intentions in community health service workers. *Leadership in health services*. <https://doi.org/10.1108/17511871111151126>
- Amor, A. M., Vázquez, J. P. A., & Fañá, J. A. (2020). Transformational leadership and work engagement: Exploring the mediating role of structural empowerment. *European Management Journal*, 38(1), 169-178. <https://doi.org/10.1016/j.emj.2019.06.007>
- Baird, K., & Wang, H. (2010). Employee empowerment: Extent of adoption and influential factors. *Personnel Review*. <https://doi.org/10.1108/00483481011064154>
- Cavus, M. F., & Gokcen, A. (2015). Psychological capital: Definition, components and effects. *Journal of Education, Society and Behavioural Science*, 244-255. <https://doi.org/10.9734/BJESBS/2015/12574>
- Chen, H. F., & Chen, Y. C. (2008). The impact of work redesign and psychological empowerment on organizational commitment in a changing environment: An example from Taiwan's state-owned enterprises. *Public Personnel Management*, 37(3), 279-302. <https://doi.org/10.1177/009102600803700302>
- Deepa, S. M. (2020). The effects of organizational justice dimensions on facets of job engagement. *International Journal of Organization Theory & Behavior*. <https://doi.org/10.1108/IJOTB-05-2019-0066>

- Greco, P., Laschinger, H. K. S., & Wong, C. (2006). Leader empowering behaviours, staff nurse empowerment and work engagement/burnout. *Nursing Leadership, 19*(4), 41-56. <https://doi.org/10.12927/cjnl.2006.18599>
- Guan, X., & Frenkel, S. (2018). How HR practice, work engagement and job crafting influence employee performance. *Chinese Management Studies*. <https://doi.org/10.1108/CMS-11-2017-0328>
- Guest, D. (2014). Employee engagement: a sceptical analysis. *Journal of Organizational Effectiveness: People and Performance*. <https://doi.org/10.1108/JOEPP-04-2014-0017>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis: Pearson new international edition*. Essex: Pearson Education Limited.
- Hunjra, A. I., Ul Haq, N., Akbar, S. W., & Yousaf, M. (2011). Impact of employee empowerment on job satisfaction: an empirical analysis of Pakistani service industry. *Interdisciplinary Journal of Contemporary Research in Business, 2*(11), 680.
- Jeung, C. W. (2011). The concept of employee engagement: A comprehensive review from a positive organizational behavior perspective. *Performance Improvement Quarterly, 24*(2), 49-69. <https://doi.org/10.1002/piq.20110>
- Joo, B. K., Lim, D. H., & Kim, S. (2016). Enhancing work engagement: the roles of psychological capital, authentic leadership, and work empowerment. *The Leadership & Organization Development Journal, 37*(8), 1117-1134. <https://doi.org/10.1108/LODJ-01-2015-0005>
- Jose, G., & Mampilly, S. R. (2014). Psychological empowerment as a predictor of employee engagement: An empirical attestation. *Global Business Review, 15*(1), 93-104. <https://doi.org/10.1177/0972150913515589>
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of personality and social psychology, 83*(3), 693. <https://doi.org/10.1037/0022-3514.83.3.693>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of management journal, 33*(4), 692-724. <https://doi.org/10.5465/256287>
- Karasneh, A. A. F., & Al-Momani, E. A. (2020). The influence of emotional intelligence on leadership styles: A profile of executives in ASEZA organization. *Journal of Public Affairs, 20*(3), e2069. <https://doi.org/10.1002/pa.2069>
- Khalili, H., Sameti, A., & Sheybani, H. (2016). A study on the effect of empowerment on customer orientation of employees. *Global Business Review, 17*(1), 38-50. <https://doi.org/10.1177/0972150915610674>
- Kular, S., Gatenby, M., Rees, C., Soane, E., & Truss, K. (2008). *Employee engagement: A literature review*.
- Laschinger, H. K. S., Finegan, J., Shamian, J., & Wilk, P. (2001). Impact of structural and psychological empowerment on job strain in nursing work settings: expanding Kanter's model. *JONA: The Journal of Nursing Administration, 31*(5), 260-272. <https://doi.org/10.1097/00005110-200105000-00006>
- LASCHINGER, H. K., Wilk, P., Cho, J., & Greco, P. (2009). Empowerment, engagement and perceived effectiveness in nursing work environments: does experience matter? *Journal of nursing management, 17*(5), 636-646. <https://doi.org/10.1111/j.1365-2834.2008.00907.x>
- Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of applied psychology, 85*(3), 407. <https://doi.org/10.1037/0021-9010.85.3.407>
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and organizational Psychology, 1*(1), 3-30. <https://doi.org/10.1111/j.1754-9434.2007.0002.x>
- MacLeod, D., & Clarke, N. (2011). *Engaging for success: enhancing performance through employee engagement, a report to Government*.
- Malik, M. E., Nawab, S., Naeem, B., & Danish, R. Q. (2010). Job satisfaction and organizational commitment of university teachers in public sector of Pakistan. *International journal of business and management, 5*(6), 17. <https://doi.org/10.5539/ijbm.v5n6p17>
- Mathieu, J. E., Gilson, L. L., & Ruddy, T. M. (2006). Empowerment and team effectiveness: An empirical test of an integrated model. *Journal of applied psychology, 91*(1), 97. <https://doi.org/10.1037/0021-9010.91.1.97>
- Maton, K. I., & Salem, D. A. (1995). Organizational characteristics of empowering community settings: A multiple case study approach. *American Journal of community psychology, 23*(5), 631-656.

<https://doi.org/10.1007/BF02506985>

- Meyerson, G., & Dewettinck, B. (2012). Effect of empowerment on employees performance. *Advanced Research in Economic and Management Sciences*, 2(1), 40-46.
- Perkins, D. D., & Zimmerman, M. A. (1995). Empowerment theory, research, and application. *American journal of community psychology*, 23(5), 569-579. <https://doi.org/10.1007/BF02506982>
- Peterson, N. A., & Zimmerman, M. A. (2004). Beyond the individual: Toward a nomological network of organizational empowerment. *American journal of community psychology*, 34(1-2), 129-145. <https://doi.org/10.1023/B:AJCP.0000040151.77047.58>
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of management journal*, 53(3), 617-635. <https://doi.org/10.5465/amj.2010.51468988>
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293-315. <https://doi.org/10.1002/job.248>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Sharma, N., & Singh, V. K. (2018). Psychological empowerment and employee engagement: Testing the mediating effects of constructive deviance in Indian IT Sector. *International Journal of Human Capital and Information Technology Professionals (IJHCITP)*, 9(4), 44-55. <https://doi.org/10.4018/IJHCITP.2018100103>
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of management Journal*, 38(5), 1442-1465. <https://doi.org/10.5465/256865>
- Sweem, S. L. (2009). *Leveraging employee engagement through a talent management strategy: optimizing human capital through human resources and organization development strategy in a field study*. Benedictine university.
- Thamizhmanii, S., & Hasan, S. (2010). A review on an employee empowerment in TQM practice. *Journal of Achievements in Materials and Manufacturing Engineering*, 39(2), 204-210.
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An “interpretive” model of intrinsic task motivation. *Academy of management review*, 15(4), 666-681. <https://doi.org/10.5465/amr.1990.4310926>
- Wang, L., Law, K. S., Zhang, M. J., Li, Y. N., & Liang, Y. (2019). It’s mine! Psychological ownership of one’s job explains positive and negative workplace outcomes of job engagement. *Journal of Applied Psychology*, 104(2), 229. <https://doi.org/10.1037/apl0000337>
- Wefald, A. J. (2008). *An examination of job engagement, transformational leadership, and related psychological constructs* (Doctoral dissertation, Kansas State University).
- Wilkinson, A. (1998). Empowerment: theory and practice. *Personnel review*. <https://doi.org/10.1108/00483489810368549>
- Yin, N. (2018). The influencing outcomes of job engagement: an interpretation from the social exchange theory. *International Journal of Productivity and Performance Management*. <https://doi.org/10.1108/IJPPM-03-2017-0054>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

An Assessment of Teachers' Performance Management System: The Case of Saudi Ministry of Education

Nada Alshaikhi¹, & Turkey Alshaikhi¹

¹ Swansea University, United Kingdom

Correspondence: Nada Alshaikhi, Swansea University, United Kingdom.

Received: December 21, 2020

Accepted: January 20, 2021

Online Published: January 22, 2021

doi:10.5539/ibr.v14n2p102

URL: <https://doi.org/10.5539/ibr.v14n2p102>

Abstract

The main aim of this study is to examine the effectiveness of performance management system of teachers in the Saudi Ministry of Education. The study also explores whether the performance management system provides all the information needed to reflect teachers' efficiency and productivity. The current research aims to identify the shortcomings of the performance management system for teachers in order to determine how teaching quality may be developed and improved. This is accomplished through a self-administered questionnaire survey of teachers, designed to measure teachers' opinions of the performance management system. A total number of teachers completed the survey was 502. Statistical Package for Social Science (SPSS) was used to analysis the data. The findings of the study demonstrate that teachers' perceptions regarding their performance management system are generally oriented towards dissatisfaction. The results show that this dissatisfaction arises from the problems relating to the performance management process itself. Additionally, the performance management system for Saudi teachers does not capture the necessary information for managers to make informed decisions and policies in relation to the teachers. Moreover, many performance management system-related problems such lack of training of head teachers for conducting performance management system along with teachers' beliefs about bias errors existing in performance management system caused teachers' dissatisfaction. Therefore, this study has proposed recommendations to overcome the shortcomings of the existing system and to enhance teachers' satisfaction with their performance management system.

Keywords: performance management, performance appraisal, ministry of education

1. Introduction

Educational institutions, including schools around the world, face major challenges in providing quality education (Darling-Hammond et al., 2009). Teachers' performance is therefore considered an important factor that demands much attention. Teachers play significant, valuable roles in educating the youth in society. Teachers are also responsible for imparting knowledge to children during the formative years of the children's development, and teachers have an extraordinary influence on shaping the minds of future adult members of society. According to the Organisation for Economic Cooperation and Development (OECD, 2005): "Teacher quality is the single most important school variable influencing student achievement" (p. 26). The teaching profession is highly important; hence, educational development programs should be designed to enable teachers to work comfortably (i.e., with more freedom, authority and respect). One of the most crucial factors that may improve teachers' performance is an effective performance management system, as this system is capable of influencing teachers' behaviour and improving school performance. It also enhances the quality of education and may enable teachers to improve their potential. Such claims are supported by Machingambi (2013, p. 218):

A popular justification for focusing on the management of the performance and professional development of teachers is that teaching quality is regarded as the largest in-school factor that affects student learning. Therefore, managing teachers' performance is critical as it helps them continuously improve their skills, which in turn impact positively on student achievements.

Tomlinson (2000) views performance management as a tool that helps the continuous improvement of teachers' performance, along with the development of competence and realisation of potential, noting that performance management is about setting expectations and plans and helping teachers to work as professionals. Gentle (2001) argues that performance management should permeate the school environment on a daily basis and should not be seen as a simple one-off event of filing out an annual performance form. Furthermore, Gentle (2001) added that

performance management should be used to help individuals understand what their organisation is trying to achieve and how this can be accomplished. Performance management is a means of managing individuals to ensure that organisational objectives are met through appropriate tasks, so in schools performance management can be described as a mechanism to improve and develop teaching and learning. A well-designed teacher performance management system enables school management to evaluate teachers' performance, identify and encourage good performance, recognise areas for development and improve teachers' overall performance (Tomlinson, 2000).

This study attempts to fill the gaps in the literature about performance management system in the context of the Saudi Ministry of Education, in order to develop the Saudi educational system in general and teachers' performance in particular. Further, the study aims to evaluate the effectiveness of the current performance management system in reflecting the actual performance of Saudi teachers. Based on this, the study explores whether the performance management system provides all the information needed to reflect teachers' efficiency and productivity. In addition, the study analyses the ability of management departments within the Saudi Ministry of Education to make administrative decisions based on performance management outcomes that may affect teachers' careers, and it examines the HR policies that are based on performance management results. The current research aims to identify the shortcomings of the performance management system for teachers in order to determine how teaching quality may be developed and improved. Finally, the study aims to suggest an enhanced system for conducting an effective and efficient performance management system.

The study attempts to answer the following research questions:

RQ.1: To what extent does the current teachers' PMS in the Ministry of Education achieve its objectives?

RQ.2: Does the PMS capture the necessary information for management to make informed decisions and policies about the teachers?

RQ.3: What challenges and problems related to the PMS do Saudi teachers face?

2. Literature Review

Although educational organisations are different from other organisations in terms of their activities, the management structures do not differ much. Thus, educational institutions face the same administrative issues as other organisations, including the issues related to performance management systems; therefore, most educational planners and policymakers have made performance management of teachers a tool for their professional development in order to raise the quality of education. A performance management system is capable of influencing teachers' behaviour and improving school performance. It also enhances the quality of education, which, in turn, has a positive impact on student achievement (Machingambi, 2013). Teachers play significant, valuable role in improving the quality of education. Therefore, teachers should be well-monitored, and it must be ensured that they are well-trained so that they can deliver high-quality education. Thus, performance management systems are used by many governments and education leaderships all over the world to achieve this goal (Machingambi, 2013). According to Santiago et al. (2009); the major aims of performance management include assessing teachers' performance, increasing the overall performance of the school, improving teachers' work-related potential as well as motivating teachers through professional development, recognition and rewards.

According to Armstrong (2014) an effective performance management system should comprise several stages. Firstly, individuals should know what is expected of them before they start their job, it is important to recognise that evaluation characteristics should be developed from the organisation's vision and matched with its goals, and the performance management system should provide feedback for individuals and identify their strengths and weaknesses. Performance management should include observing and monitoring employees' performance during the evaluation period, the collected information about employees' performance should be recorded by appraiser in order to use this information to measure actual employees' performance. The results of performance appraisal could also help with administrative decisions related to the employee as well as selections, pay increases, training and development, promotions and transfers.

According to Bartol and Martin (1998) performance appraisal results can be either positive or negative. In the case of positive results, management should promote the employee, increase their salary, offer financial and non-financial rewards, or a mixture of these. In the case of unsatisfactory performance appraisal results, management should take corrective action immediately, such as a systematic correction and development support to provide assistance for poorly-performing employees. Corrective measures include training, retraining, designing a performance improvement plan, re-setting clear performance standards and providing appropriate

facilities in the work environment.

Performance management relies on the principle of management by agreement or participatory management rather than management by leadership (Bezuidenhout, 2000). Organisations use a performance management system as an important strategy for helping to manage the talents of their staff. This is particularly the case in organisations in the educational sector. Under the performance management system, school leaders and teachers work together in setting performance goals, reviewing performance, providing feedback and taking corrective actions. They also place emphasis on developing and starting self-managed learning plans, thus integrating individual and organisational goals (Robert, 2003; Aguinis, 2015).

In the school context, the aim of a performance management system is to identify the specific needs of teachers, provide support for continuous growth, enhance accountability, monitor the overall effectiveness of the school and appraise the performance of teachers (Santiago et al. 2009).

Literature on teacher performance (Gentle, 2001; Brower, 2005) shows that when teachers and school management work together in performance management processes for career growth in school improvement efforts, both teachers and school management tend to improve.

In this way, performance management is useful for teachers as it helps provide feedback for them, identify their strengths and weaknesses and improve their skills by identifying their development and training needs in order to improve the quality of teaching and learning (Shultz, 2006; Roberson & Stewart, 2006). According to Verspoor (2004); Fryer et al. (2009) the success of the performance management system depends on certain factors. These include the way the system is communicated to teachers and schools, the level of teachers' training, the awareness of the performance management system that teachers receive from heads of schools, the availability of resources in schools and whether or not departments hold workshops on the performance management system. The presence of such factors helps teachers understand the procedures and processes of the performance system.

Despite the perceived benefits, the implementation of performance management in education systems is controversial. For example, performance management started in business and industry sectors where performance can be linked to payment, some researchers and practitioners in the field of education believe such a linkage is not suitable for the education environment. According to Murnane and Cohen (1986) linking performance to payment is infeasible in this environment because it is not easy to monitor teacher performance. Teachers often work as teams; therefore, linking their performance to payment could affect the teachers' cooperation. Additionally, teaching has multidimensional objectives, and it is very difficult to identify individual contributions to some of these objectives—for example, the realization of student potential.

Marsden (2000) study titled "New Economics of Performance" illustrated the effects of pay-related performance on employee motivation and relationships in public service workplaces in the United Kingdom. The study found that restraints exist regarding the use of these incentives, especially in public organisations. When the management attempts to motivate employees to improve their performance on a large scale, this action can affect the fairness of the performance management process. Additionally, such attempts may affect employees who work hard but fail to receive a fair reward. Another study conducted by Dolton et al. (2003) supports the Marsden et al. study, showing that most employees believe a pay-related performance system creates jealousy and undermines employee morale. However, in some countries where teacher performance is linked to the payment system, the difficulties related to performance management have been eliminated and the desired performance results have been achieved. Empirical studies in other countries have proven that linking teacher performance to the payment system can have a positive impact on education outcomes—for example, in England (Atkinson et al., 2009), in India (Duflo et al., 2012; Kingdon & Teal, 2007; Muralidharan & Sundararaman, 2009), and with the school/group PRP programmes in Kenya (Glewwe et al., 2010). Therefore, performance-related payment is an essential component of the performance management process and excluding it may render performance management system ineffective.

Heystek et al. (2005) stated that the time factor is critical in performance management as the basic work of teachers in schools is teaching students. Given the time and activities needed to carry out performance management, teachers barely have enough time to participate in the evaluation process.

As one of the most crucial parts of performance management is the evaluation stage, dissatisfaction with evaluations may lead to a decline in motivation and a sense of injustice. The lack of accurate results from the evaluation process make it difficult to link performance to administrative decisions such as promotions, rewards, training and development (Lawler, 1967). The absence of essential elements of evaluations may lead to resistance by teachers to such systems (Sergiovan & Starrat, 1993). Appraisal systems are designed in order to motivate employees and direct their efforts towards achieving goals. If they are not accurate, there will be no

satisfaction on the part of the staff, who will not support their implementation; therefore, they will not succeed in the end (Bartol and Martin, 1998). Robins (2007) stated that in measuring performance, evaluators should know that they are trying to evaluate invisible and subjective aspects, a process that needs special attention, particularly in the school context. However, when teacher performance management system is applied as it should be, and the difficulties related to performance management are eliminated, the desired performance results can be achieved.

3. Theoretical Perspective

For the purposes of this research, three theories have been selected in order to explore their applicability to performance management: goal-setting theory, expectancy theory and procedural justice theory.

3.1 Goal-setting Theory (Latham and Locke, 1979)

The influence of goal-setting on employees' performance has been widely studied and found to be useful due to its positive impacts on employees' performance in different work situations (Locke et al., 1984). Locke and Latham (2002) found that the difficulty and specificity of goals have a great influence on employees' performance as difficult and specific goals improve employees' performance compared to inscrutable and mysterious ones. Goal-setting theory discusses certain mechanisms that link specific and difficult goals to employees' performance results. Goals lead to a focus on priorities and motivate the efforts of individuals. Difficult and specific goals lead to continuous employees' performance of tasks. Such goals challenge people to use their knowledge and talents to increase their chances of success. The literature review indicates that there is a positive relationship between setting clear, measurable goals and employees' performance. More than 90% of experimental studies have shown the positive impact of goal-setting on employee performance (Locke & Latham, 1990). The reason that setting goals has a positive impact on employees' performance is that the goals that are set affect the levels of effort and persistence. Furthermore, they increase a person's focus on what is to be achieved so that tasks are less likely to be put off until later (Latham et al., 2008).

3.2 Expectancy Theory (Vroom, 1964)

Expectancy theory is a theory of motivation first suggested by Victor Vroom in 1964. In the study of organisational behaviour, expectancy theory states that people usually have different sets of goals and can be motivated if they have certain expectations. This theory revolves around choice and explains the processes by which an individual subject makes choices. According to Vroom, motivation should be equal to the amount of effort expended in specific task situations. Choices are based on two phases of expectation (effort leads to performance, and performance leads to a specific outcome/reward). First, motivation is influenced by people's expectations and the level of effort that will achieve the intended performance goal. Motivation is also affected by the employee's perceived opportunities to obtain different results by achieving the performance goal. Individuals are motivated to the extent that they appreciate the results (i.e., rewards) obtained. According to Lehman and Geller (2004) states that reward for performance enhances the effort of individuals and thus improves performance. Expectancy theory is generally supported by empirical evidence (Tien, 2000; Vansteenkiste et al., 2005), and it is one of the most commonly used theories of motivation in the workplace.

3.3 Procedural Justice Theory (Thibaut and Walker, 1975)

The theory of procedural justice focuses on the perceived fairness of the procedures used in making decisions regarding the distribution of results. These procedural decisions relate to how to assess performance levels, how to address grievances and disagreements, as well as how to distribute results to employees. In the theory of procedural justice, individuals' perceptions are essential as their reactions to procedures depend on how they perceive these procedures rather than what these procedures actually are (George & Jones, 1999). This theory suggests that individuals will be more motivated to perform when the procedures used to make decisions on the distribution of rewards are fair and when their performance evaluation is accurate. If their performance is not accurately assessed due to personal feelings that affect the evaluation or because the evaluator is not well-versed regarding the employee's contribution to the work, the motivation will, consequently, be reduced, as will individuals' performance. This theory seeks to discover the reasons why individuals view procedures as fair or unfair and the consequences of these perceptions.

The three main theories of goal-setting, expectancy and procedural justice underlie the concept of the performance management system. These three theories are strongly related to motivational aspects of the individual, which, in turn, are related to perceived increases in individuals' performance management satisfaction and, finally, the effectiveness of the performance management process.

4. Methodology

This research follows a quantitative approach to achieve the research aims. This is achieved by measuring participants' perceptions of the identified research questions. Primary data was collected using a questionnaire, the study explores participants' opinions and evaluates the perceptions of Saudi public schoolteachers in relation to performance management system issues. This makes it possible to achieve the aims and objectives of the study. Thus, a questionnaire was developed to gather primary data related to the topic. The five-point Likert scale was used to check the respondents' beliefs and opinions about their acceptance of and satisfaction with the performance management system. Statistical methods were used to analyse the collected data. This study was carried out using data from male and female teachers from all Saudi regions. In this study, the target population was quite large, consisting of all the teachers in Saudi Arabian public schools in all districts. The number of Saudi teachers, both male and female, account for 518,726. Although there are no clear guidelines regarding the exact sample size, some studies (e.g. Comrey & Lee, 1992; Tabachnick & Fidell, 2001) have indicated that a size of 1,000 is supposed to be excellent, 500 is very good, and 300 is comfortable. Taking into consideration this advice, 502 responses were collected, considered a good sample size for effective data analysis. In this study, a web-based survey was used to collect data due to the ease of reaching the largest number of teachers, the survey was sent to various groups of Saudi teachers via email and social media, such as WhatsApp, Facebook Twitter. The quantitative research method is used to shed light on the nature of the performance management system practices existing in the Saudi Ministry of Education and their effectiveness. In particular, the quantitative research approach facilitates the investigation into and measurement of teachers' views on the performance management system process and the extent to which the process influences teachers' job satisfaction.

5. Data Analysis Procedure

Version 22.0 of the Statistical Package for Social Sciences (SPSS) was employed to analyse the quantitative data obtained from the survey questionnaire. According to Zikmund (2003), a vast number of researchers use statistical packages for various academic purposes, including in social science and business studies. In this study, a variety of statistical techniques were utilised for the primary data collected through the questionnaires. The statistical techniques involved both descriptive and analytical methods. After coding, the raw data were entered into SPSS, which enabled the data to be presented in statistical tables so as to help the reader observe the pattern of the analysed data. After cleaning and checking the data, it was appropriate to conduct a descriptive analysis to get a better understanding of the sample. SPSS was performed to carry out the descriptive analysis to examine percentages, mean values and standard deviations.

6. Results

This section provides an analysis of the quantitative data collected from teachers working for the Saudi Ministry of Education and linked with the literature according to the following categories: perception of current performance management process, the current HR decisions related to performance appraisal results for teachers and problems causing teachers' dissatisfaction of performance management system.

6.1 *The Current State of Performance Management*

The first section of the questionnaire aims to investigate the stages of the current performance management system process for Saudi teachers according to the participants' perceptions. To examine this process, the three components that are analysed in this section are as follows:

6.1.1 Strategic Planning and Goal Setting

The statements were meant to provide an overview about the strategic planning and goal setting in Saudi Ministry of Education for Saudi public schools, see table 1.1 for detailed information about the responses. The results indicate that most respondents had similar opinions about the statements in the questionnaire which suggested their level of dissatisfaction with the strategic planning and goal setting.

Table 1-1. the responses of Likert-item scale for the strategic planning and goal setting stage

Questions Items	Mean	SD	Percentage				
			1	2	3	4	5
Vision and mission statement are clear, and direct teachers to achieve Ministry's strategic objectives.	2.41	1.29	30.3	30.9	14.7	15.3	8.8
Teachers are involved in goals and objectives setting.	2.36	1.28	31.1	32.5	14.7	12.7	9.0
Teachers are involved during the development of performance management system.	2.23	1.15	30.1	39.4	12.7	12.7	5.0
Performance management system gives teachers clear way to achieve Ministry's strategic objectives	2.29	1.30	36.1	28.7	14.5	12.0	8.8
Teachers consider performance objectives clear, specific and measurable	2.44	1.22	25.3	35.7	15.9	16.3	6.8
Relevant performance expectations are set between teachers and head teachers	2.51	1.28	25.1	35.3	12.5	18.1	9.0

6.1.2 On-going Feedback

This section focusses on the perceptions of teachers on on-going feedback that should be giving during the evaluation period. For this reason, teachers were requested to rate three statements, in order to examine the on-going feedback stage as shown in table 1.2. The results indicate that most respondents had similar opinions about the statements in the questionnaire which suggested their level of dissatisfaction with the on-going feedback.

Table 1-2. the responses of Likert-item scale for on-going feedback stage

Questions Items	Mean	SD	Percentage				
			1	2	3	4	5
Feedback is given on a periodic basis to help teachers work upon improving performance.	2.33	1.22	28.7	38.2	11.8	14.3	7.0
The head teacher's feedback is honest and constructive	2.28	1.15	28.7	36.5	18.3	11.2	5.4
Head teachers clearly identify teachers' weaknesses in order to improve their performance.	2.50	1.27	25.5	33.9	14.5	17.3	8.8

6.1.3 Performance Appraisal Process

Table 1-3. the responses of Likert-item scale for the performance appraisal stage

Questions Items	Mean	SD	Percentage				
			1	2	3	4	5
Head teachers usually meet teachers in order to clarify weaknesses and strengths in their performance	2.05	1.12	42.0	26.7	19.1	8.8	3.4
Teachers clearly understand how their performance is measured	2.57	1.28	20.7	38.8	14.9	13.3	12.2
The assessment of performance follows a clear, balanced and fair procedure	2.29	1.12	26.7	38.4	18.1	12.4	4.4
Performance is measured against the factors previously agreed upon.	2.45	1.23	26.1	34.1	14.1	19.7	6.0
Performance appraisal is conducted more than once a year	1.79	.941	44.4	40.8	8.6	3.2	3.0
The evaluation tool for Saudi teachers contains clear and well-defined criteria	2.49	1.36	29.1	31.9	13.1	12.9	12.9
Head teachers are not well prepared and trained to conduct the PA process	2.19	1.21	35.3	35.5	11.6	11.4	6.4

In order to investigate the respondents' preceptions towards the presence of a set of issues related to performance appraisal stage. When the teachers were asked whether they agreed or disagreed with the below statements regarding their perceptions of performance appraisal process, the summary of responses among teachers is shown in Table 1.3. The results indicate that most respondents had similar opinions about the statements in the questionnaire which suggested their level of dissatisfaction with the performance appraisal process.

6.2 The Current HR Decisions Related to PA Results for Teachers

This section aimed to examine the overall results of HR decisions (rewards and recognition decisions, improvement and development decisions, terminations and transfer decisions) as shown in Table 1.4. When the teachers were asked whether they agreed or disagreed with the above statements regarding their perceptions of performance appraisal process. The results indicate that most respondents had similar opinions about the statements in the questionnaire which suggested their level of dissatisfaction with the HR decisions.

Table 1-4. the responses of Likert-item scale for the current HR decisions

Questions Items	Mean	SD	Percentage				
			1	2	3	4	5
Performance management system establishes a clear connection between performance and reward.	2.36	1.29	31.2	32.6	13.9	12.7	9.3
The Ministry effectively provides adequate development opportunities for teachers	2.23	1.16	30.0	39.6	12.1	13.1	5.0
Management takes corrective measures such as systematic remedial or development support to help underperforming teachers.	2.33	1.33	36.8	29.0	12.7	11.9	9.1
Unsatisfactory teaching performance may lead to a termination decision.	2.29	1.33	36.8	29.2	11.9	12.3	9.3
Teachers could be transferred to administrative positions based on their unsatisfactory performance evaluations	2.44	1.23	25.8	35.8	14.5	16.7	7.2

6.3 Problems Causing Teachers' Dissatisfaction of Performance Management System

This section of the questionnaire aimed to address the organisational teachers' dissatisfaction of performance management system that may negatively affect the performance management system in Saudi schools. The summary of responses among teachers was as shown in Table 1.4. The results show that the majority of the teachers have the same opinion on most of the statements. Therefore, it can be said, that these issues are believed to clearly exist and might prevent the effectiveness of the teacher performance management system.

Table 错误!文档中没有指定样式的文字。 -1. the responses of Likert-item scale for the problems related to PMS

Items	Mean	SD	Percentage				
			1	2	3	4	5
There is a lack of awareness of some teachers about the influence of the performance management process in terms of developing their performance.	3.75	1.32	9.3	11.9	11.3	28.6	38.6
The constant surveillance caused by the performance management process may result in teachers' resistance to the Performance Management system.	3.67	1.31	10.5	8.5	12.1	32.1	36.6
Teachers are not involved in setting performance criteria that are used during the evaluation period.	3.77	1.26	8.7	9.5	12.3	34.7	34.7
There is poor communication between teachers and head teachers.	3.67	1.34	9.7	12.0	10.6	28.3	39.4
There is control by school management over teachers' achievement of the objectives.	3.72	1.25	6.6	16.3	7.4	37.6	32.1

There is a lack of observation of the Performance management process by top management in the Saudi Ministry of Education.	3.77	1.34	11.0	9.2	11.4	28.9	39.6
The social relations between teachers and head teachers may affect the head teacher's overall evaluation decision.	3.73	1.31	9.2	11.6	12.4	28.5	38.4
Head teachers are not well prepared and trained to conduct the performance management process.	4.13	1.16	5.1	6.2	12.0	23.6	53.1
The head teacher rates teachers either too harshly or too positively (based on the head teacher's own standards) which may influence the Performance management process.	3.73	1.32	9.6	11.2	12.5	27.7	39.0

7. Discussion

The findings of the study demonstrate that the perceptions of teachers regarding their performance management system are most commonly oriented towards dissatisfaction. The results show that there are problems related to the performance management process. Firstly, It is clear from the findings that there is a general trend among the teachers examined to see a deficiency in the ability of performance management to clarify the Ministry's strategies and objectives. According to Armstrong (2014) without a coherent strategy and clear objectives, an organisation will lack the focus necessary to achieve goals and develop plans that will move the organisation forward. A lack of clear objectives means that the organisation does not have a clear vision for the future; therefore, predetermined objectives will not be employed to develop long-term growth and productivity plans that are essential for the sustained success of the organisation. This finding is supported by the theory of goal-setting, which states that performance goals, objectives and expectations should be clear and understandable so as to motivate employees; otherwise, employees have no clear view of what management expects them to work towards (Locke & Latham, 2002). Locke and Latham (1990) argued that the reason setting goals and objectives usually has a positive influence on performance is that specific and clear goals influence choice, effort and persistence. In other words, clear goals and objectives increase employees' focus on what is to be achieved instead of putting it off to a later time.

In addition, it might be possible to state that according to the above results of the respondents, some head teachers did not give teachers feedback on a periodic basis to help teachers to improve their performance. Indeed, the failure to give ongoing feedback defeats the purpose of the performance management process, leaving employees frustrated and demotivated such that they do not take the evaluation seriously (Robert, 2003). Roberson and Stewart (2006) stated that managers who provide honest and accurate feedback were considered more procedurally and informationally fair.

Moreover, the analysis systematically demonstrates that the majority of respondents saw that some issues exist related to the performance appraisal stage in the Saudi public schools. These issues were seen as preventing an accurate performance appraisal from taking place within the schools. Thus, it is obvious from the findings that in general, the majority of teachers surveyed were largely unsatisfied about the performance appraisal stage of the current performance management. The appraisal process follows unclear, poorly balanced procedures that can lead to inaccurate results. According to Lawler (1967) dissatisfaction with evaluations may lead to a decline in motivation and a sense of injustice. The lack of accurate results from the evaluation process make it difficult to link performance to administrative decisions such as promotions, rewards, training and development.

The performance management system for Saudi teachers was found not to capture the necessary information for managers to make informed decisions and policies regarding the teachers; moreover, it can be concluded that there is no link between performance management and the reward and recognition system. Additionally, the findings revealed that teachers are not provided with the necessary training and development that they need in order to improve their performance. It was further revealed that there is no strong relationship between poor performance management results and taking necessary actions to address unsatisfactory performance as management does not take corrective measures in order to help underperforming employees. It can be said that performance management system for Saudi teachers is used more for evaluation than as a tool to aid teacher development. The findings show that the Ministry does not provide development opportunities or rewards to teachers and that the evaluation report used does not address future decisions related to teachers. Consequently, the performance management focuses on past actions more than on future improvement. Additionally, in terms of dismissal and transfer decisions, most of the teachers surveyed believed that individuals are not terminated or transferred based on poor performance results. Teaching in Saudi Arabia is considered a lifelong job; that is, no

teacher can be dismissed or penalised for poor performance. According to Bartol and Martin (1998) Performance appraisal results can be either positive or negative. In the case of positive results, management should promote the employee, increase their salary, offer financial and non-financial rewards, or a mixture of these. In the case of unsatisfactory performance appraisal results, management should take corrective action immediately, such as a systematic correction and development support to provide assistance for poorly-performing employees. Corrective measures include training, retraining, designing a performance improvement plan, re-setting clear performance standards and providing appropriate facilities in the work environment. This finding is also supported by the expectancy theory (Vroom, 1964), which states that rewards motivate employees to work harder and thus improve performance as promotion and punishment guide human behaviour. Individual performance improves when rewards are closely related to performance. According to Lehman and Geller (2004) states that reward for performance enhances the effort of individuals and thus improves performance.

Furthermore, the findings indicated that some issues related to performance management are believed to clearly exist. Foreexample, from the teachers' perspective, issues related to the fairness of evaluation exist and might prevent their effective evaluation. According to the current study's survey findings, most teachers believed that many different kinds of bias can show up during the performance management process that may lead to teachers' resistance to such systems. Such problems might negatively impact the teachers' development, growth, financial rewards and, ultimately, their annual evaluations. In such cases, the teachers feel unfairly treated because the appraisal standards seem unfair and unreasonable. This might lead to despair, mistrust, or hostility between teachers and head teachers during appraisals and to the system failing to differentiate between teachers that perform well and those that perform poorly. In the theory of procedural justice, individuals' perceptions are essential as their reactions to procedures depend on how they perceive these procedures rather than what these procedures actually are (George and Jones, 1999). This theory suggests that individuals will be more motivated to perform when the procedures used to make decisions on the distribution of rewards are fair and when their performance evaluation is accurate. If their performance is not accurately assessed due to personal feelings that affect the evaluation or because the evaluator is not well-versed regarding the employee's contribution to the work, the motivation will, consequently, be reduced, as will individuals' performance.

Additionally, the survey respondents saw teachers as not being involved in the evaluation process and as marginalised by management in terms of the performance management process. Aguinis (2015) emphasised that it is necessary to involve employees in the PM process because it gives them a sense of fairness and a feeling of security regarding this process. Their involvement also increases the employees' commitment to meeting performance objectives. The findings of this study also show that the teachers were not adequately trained in implementing the performance management system, leaving them with little understanding of the system and related procedures. The results therefore show that head teachers did not have adequate skills to carry out the performance management process, therefore, head teachers need to have advance training in order to conduct the performance management process effectively and teachers need to be more aware of the benefits of the performance management system. According to Fryer et al (2009) the failure to implement performance management system is usually due to lack of the knowledge, skills, and training required by management and employees. Managers may not be equipped with the skills and training needed to carry out performance planning, supervision, evaluation, evaluation interviews and providing feedback. Employees themselves may lack training on the importance of such systems in improving their performance, how to set objectives and how to prepare for performance review meetings. The management should therefore be responsible for educating employees to improve their attitude towards appraisal by emphasizing its benefits to them, such as developing their skills, identifying their training needs and examining their suitability for pay rises or other rewards.

8. Conclusion

This study represents an attempt to fill the gaps in the literature regarding performance management systems in the context of the Saudi Ministry of Education in order to develop the Saudi educational system in general and teachers' performance in particular. Further, its aim is to evaluate the effectiveness of the current performance management system in reflecting the actual performance of Saudi teachers. There is a general dissatisfaction with the performance management systems among teachers. The current performance management systems for teachers is inadequate in accurately judging their performance and meeting their development requirements; hence, the current performance management systems should be re-evaluated. There is a need to review the various issues and challenges related to the implementation of a performance management systems. The current performance management systems for Saudi teachers does not capture the necessary information for managers to make informed decisions and policies regarding the teachers (e.g., rewards, training, and transfers). Moreover,

the results also indicate that head teachers do not have adequate skills to carry out the performance management process and that certain organisational problems are believed to exist that evoke teachers' resistance to the performance management process.

The outcomes of this research are expected to provide the Ministry of Education with information that would be helpful in improving the management of schools' and teachers' performance. Such improvements are likely to have a significant impact on the quality of education. The findings are also expected to help the Ministry of Education in developing new policies and understanding the impact of these policies on the current system. The results of this study can help school administrators to learn better ways of evaluation to help teachers achieve higher levels of performance. The outcomes of the study can help the teachers to share their opinions about the weaknesses of the performance management system that need improvement to make the performance management system more effective and, hence, more valuable to their work. It can also assist teachers to see how their roles in the organisation contribute to the overall success of the learning process, thereby increasing teachers' morale. Therefore, this study has proposed recommendations to overcome the shortcomings of the existing system and to enhance teachers' satisfaction with their performance management.

9. Recommendation

Among the outcomes of this study is a suggestion that it is important to clarify and identify teachers' job roles, responsibilities, and performance criteria, as well as explain how teachers' performance is linked to the Ministry's overall performance. Head teachers and teachers should work out their specific objectives and ways to measure progress towards achieving them. Additionally, ongoing feedback should be provided by head teachers; providing feedback is a vital factor in creating open dialogue between employees and managers and helps identify employees' strengths and weaknesses. As the most important part of a performance management system, performance appraisals should be fair and accurate. Thus, it is important for the decision-makers in the Saudi public schools and the Ministry to consider the performance management outcomes when planning their teacher training and development programmes. The study also recommends that head teachers at Saudi schools should be provided with adequate training on the performance management process. Training courses should also be implemented in order to educate teachers about the importance of the performance management system in the development of teacher skills. There is a need to involve teachers in the design, development and implementation of a performance management system. Research has shown that the participation of employees in the development of a performance management system and the winning of their commitment to organisational goals and values leads to improved, motivated performance and a high level of employee acceptance of the performance management system.

References

- Aguinis, H. (2015). *Performance management* (4th ed.). Pearson Prentice Hall.
- Armstrong, M. (2014). *A handbook of human recourse management practice* (13th ed.). Kogan Page.
- Atkinson, A., Burgess, S., Croxson, B., Gregg, P., Propper, C., Slater, H., & Wilson, D. (2009). Evaluating the impact of performance-related pay for teachers in England. *Labour Economics*, 16(3), 251-261. <https://doi.org/10.1016/j.labeco.2008.10.003>
- Bartol, K. D., & Martin, D. (1998). *Management*. McGraw-Hill Co.
- Bezuidenhout, M. C. (Ed.). (2000). *Managing for healthy labour relations: A practical guide for health services in southern Africa*. Van Schaik.
- Brower, R., & Beach, B. (2005). *Transformational leadership & decision making in schools*. Corwin Press.
- Comrey, A., & Lee, H. (1992). *A first course in factor analysis*. Erlbaum.
- Darling-Hammond, L., LaPointe, M., Meyerson, D., & Orr, M. (2007). *Preparing school leaders for a changing world: Lessons from exemplary leadership development programs*. Stanford Educational Leadership Institute.
- Dolton, P. M., & Arnaud, S. C. (2003). *Teacher pay and performance*. Institute of Education Publications.
- Duflo, E., Hanna, R., & Ryan, S. P. (2012). Incentive work: Getting teachers to come to school. *American Economic Review*, 102(4), 1241-1278. <https://doi.org/10.1257/aer.102.4.1241>
- Fryer, K., Antony, J., & Ogden, S. (2009). Performance management in the public sector. *International Journal of Public Sector Management*, 22(6), 478-498. <https://doi.org/10.1108/09513550910982850>
- Gentle, D. (2001). Managing performance management in the performing school. In D. Gleeson & C. Husbands

- (Eds.), *The performing school: Managing teaching and learning in a performance culture* (pp. 20-32). Routledge Falmer.
- Glewwe, P., Llias, N., & Kremer, M. (2010). Teacher incentives. *American Economic Journal: Applied Economics*, 2(3), 205-227. <https://doi.org/10.1257/app.2.3.205>
- Heystek, J., Roos, C., & Middlewood, D. (2005). *Human resource management in education*. Heinemann Publishers.
- Jones, G. R., & George, J. M. (1999). *Understanding and managing organizational behavior* (2nd ed.). Wesley Publishing Company.
- Kingdon, G. G., & Teal, F. (2007). Does performance related pay for teachers improve student performance? Some evidence from India. *Economics of Education Review*, 26(4), 473-486. <https://doi.org/10.1016/j.econedurev.2006.02.007>
- Latham, G. P., & Locke, E. A. (1979). Goal setting: A motivational technique that works. *Organisational Dynamics*, 8(2), 442-447. [https://doi.org/10.1016/0090-2616\(79\)90032-9](https://doi.org/10.1016/0090-2616(79)90032-9)
- Latham, G. P., Borgogni, L., & Petitta, L. (2008). Goal setting and performance management in the public sector. *International Public Management Journal*, 11(4), 385-403. <https://doi.org/10.1080/10967490802491087>
- Lawler, E. (1967). The multitrait-multirater approach to measuring managerial job performance. *Journal of Applied Psychology*, 51(5), 369-381. <https://doi.org/10.1037/h0025095>
- Lehman, P. H., & Geller, E. S. (2004). Behavior analysis and environmental protection: Accomplishments and potential for more. *Behavior and Social Issues*, 13(1), 13-33. <https://doi.org/10.5210/bsi.v13i1.33>
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Prentice-Hall, Inc.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal-setting and task motivation. *American Psychologist*, 57(9), 705-717. <https://doi.org/10.1037/0003-066X.57.9.705>
- Locke, E. A., Frederick, E., Lee, C., & Bobko, P. (1984). Effect of self-efficacy, goals, and task strategies on task performance. *Journal of Applied Psychology*, 69(2), 241-251. <https://doi.org/10.1037/0021-9010.69.2.241>
- Machingambi, S., (2013) Teachers' perceptions on the implementation of the performance management system in Zimbabwe. *International Journal of Educational Sciences*, 5(3), 217-225. <https://doi.org/10.1080/09751122.2013.11890081>
- Marsden, S. F. (2000). *Why does performance pay de-motivate? Financial incentives versus performance appraisal*. Center for Economic Performance.
- Muralidharan, K., & Sundararaman, V. (2009). *Teacher performance pay: Experimental evidence from India*. National Bureau of Economic Research. <https://doi.org/10.3386/w15323>
- Murnane, R. J., & Cohen, D. K. (1986). Merit pay and the evaluation problem: Why most merit pay plans fail and a few survive. *Harvard Educational Review*, 56(1), 1-17. <https://doi.org/10.17763/haer.56.1.l8q2334243271116>
- Organisation for Economic Cooperation and Development [OECD] (2005). *Teachers matter: Attracting, developing and retaining effective teachers*. Thomson Learning.
- Roberson, Q. M., & Stewart, M. M. (2006). Understanding the motivational effects of procedural and informational justice in feedback processes. *British Journal of Psychology*, 97(3), 281-298. <https://doi.org/10.1348/000712605X80146>
- Robert, G. E. (2003). Employee performance appraisal system participation: A technique that works. *Public Personnel Management*, 31(1), 333-342. <https://doi.org/10.1177/009102600303200105>
- Robins. S. P. (2007). *Organisational behaviour: Global and southern African perspectives*. Pearson Education South Africa.
- Santiago, P., Roseveare, D., van Amelsvoort, G., Manzi, J., & Matthews. P. (2009). *Teacher evaluation in Portugal*. Retrieved from <http://www.OECD.org/portugal/43327186.pdf>
- Sergiovani, T., & Starrat, R. (1993). *Supervision: Human perspectives*. McGraw Hall.
- Shultz, P. (2006). *Psychology and work today: An introduction to industrial and organisational psychology*. Pearson Education International.

- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Allyn and Bacon.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Erlbaum.
- Tien, F. F. (2000). To what degree does the desire for promotion motivate faculty to perform research? Testing expectancy theory. *Research in Higher Education*, 41(6), 723-752.
<https://doi.org/10.1023/A:1007020721531>
- Tomlinson, H. (2000). Proposals for performance-related pay for teachers in English schools. *School Leadership and Management (Formerly School Organisation)*, 20(3), 281-298.
<https://doi.org/10.1080/13632430050128327>
- Vansteenkiste, M., Zhou, M., Lens, W., & Soenens, B. (2005). Experiences of autonomy and control among Chinese learners: Vitalizing or immobilizing? *Journal of Educational Psychology*, 97(3), 468-483.
<https://doi.org/10.1037/0022-0663.97.3.468>
- Verspoor, A. (2004). The quest for quality: Towards a learning community. *Association for the Development of Education in Africa Newsletter*, 16(1), 5-8.
- Vroom, V. (1964). *Work and motivation*. Wiley.
- Zikmund, W. G. (2003). *Business research methods* (7th ed.). South-Western Cengage Learning.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

A Novel Metaphor Concerning the Terminology of Open Innovation

Shanta Rajapaksha Yapa¹, R Senathiraja¹ & Ilkka Kauranen²

¹ Faculty of Management & Finance, University of Colombo, Sri Lanka

² Department of Industrial Engineering & Management, Aalto University, Finland

Correspondence: Shanta Rajapaksha Yapa, Faculty of Management & Finance, University of Colombo, Sri Lanka. E-mail: shantayapa@gmail.com

Received: December 18, 2020

Accepted: January 26, 2021

Online Published: January 27, 2021

doi:10.5539/ibr.v14n2p114

URL: <https://doi.org/10.5539/ibr.v14n2p114>

Abstract

The objective of this article is to present a metaphor concerning the terminology of open innovation. This metaphor will help both academics and practitioners in getting a deeper understanding of the terms and their relationships in this emerging field. An electrical circuit is used as the metaphor. In it, the following open innovation terms are included: inbound open innovation, outbound open innovation, sequential coherence, dynamic innovation capabilities, knowledge flow, absorptive capacity, organizational inertia, and innovation performance. A corresponding term for each one of these open innovation terms is given in the metaphor. Within an organization, open innovation involves the internal exploration of external knowledge and external exploitation of internal knowledge. Open innovation is gaining wide attention of researchers as it impacts innovation performance of organizations. Systematic metaphor analysis is a qualitative research method. A metaphor is an implicit comparison in which a word or phrase that originally denotes a certain object or concept is applied to another. Time tested relationships among variables in the metaphor of electric circuit offer new insights in the domain of open innovation.

Keywords: inbound open innovation, outbound open innovation, sequential coherence, dynamic innovation capabilities, knowledge flow, absorptive capacity, organizational inertia, and innovation performance

1. Introduction

Open innovation is emerging as an increasingly important paradigm for technological innovation success (Kim et al., 2016). Openness has become a trend in innovation management (Lopez & Carvalho, 2018). Openness of firms across the world enabled the mankind to fight against the deadly COVID 19 pandemic by leveraging human and physical capital fast (Chesbrough, 2020). Business firms of all sizes and in diverse industry sectors are increasingly engaging in open innovation to promote innovations (Yapa & Senathiraja, 2017). Although the practices of open innovation and related academic discussions existed before, it was Chesbrough (2003) who introduced the umbrella term open innovation. Researchers are debating the nature of the open innovation paradigm, attempting to understand its determinants (Lazzarotti et al., 2017) and how open innovation activities positively or negatively affect success, which is measured in various different ways (Hossain & Kauranen, 2016).

Open innovation is both a multi-faceted phenomenon (Randhawa et al., 2016) and a multi-level phenomenon (Bogers et al., 2017). Open innovation literature continues to grow at an increasing speed. The number of open innovation-related terms is increasing, many of the terms are overlapping, and some definitions are inconsistent. All this increases the complexity of the terms and their relationships. There is a need to clarify the situation.

2. The Objective of the Article

The objective of this article is to present a metaphor concerning the terminology of open innovation. This metaphor will help both academics and practitioners in getting a deeper understanding of the terms and their relationships in this emerging field. An electrical circuit is used as the metaphor and the following open innovation terms are included: inbound open innovation, outbound open innovation, sequential coherence, dynamic innovation capabilities, knowledge flow, absorptive capacity, organizational inertia, and innovation performance. A corresponding term for each one of these open innovation terms is given in the metaphor. This new metaphor is significant to open innovation research in three ways. Firstly, to our best of knowledge this is the first ever published metaphor in the open innovation domain. If not, this must still be one of the early

attempts. Secondly, our metaphor is unique as it uses natural science phenomena to explain a social science phenomenon. Thirdly, we anticipate that effective use of a metaphor will attract future researchers to use metaphors in theory development and the analysis of complex social systems.

3. What Is Open Innovation?

Open innovation is understood as the systematic encouragement and exploration of a wide range of internal and external sources of innovative opportunities, the integration of this exploration with firm capabilities and resources, and the exploitation of these opportunities through multiple channels (West & Gallagher, 2006). Participating in open innovation using inflows and outflows of knowledge has become an important premise for a successful organization (Sekliuckiene et al., 2016). Open innovation is in receipt of wide attention of academics as it seems to have a significant impact on organizational performance (Kim et al., 2015; Chesbrough & Tucci, 2020) as a winning strategy (Ahn et al., 2016). The benefits of open innovation include sales growth (Rubera et al., 2016; Cheng & Huizingh, 2014; Chaston, 2013), increased competitiveness (Al-Belushi et al., 2015), a decrease in production costs (Noh, 2015), higher invention quality (Walsh et al., 2016), and employee job satisfaction (Lee et al., 2014). In order to improve innovation performance, firms are increasingly acquiring technological knowledge from external sources, a key strategic approach in open innovation (Bianchi et al., 2015).

4. What Is a Metaphor?

A metaphor is defined as a word or phrase applied to an object or concept that it does not literally denote in order to make a comparison with the other object or concept under consideration (Ortony, 1979). Metaphors are especially useful in understanding concepts in social science and theory development (Hunt & Menon, 1995). Systematic metaphor analysis is considered as a method of qualitative research (Schmitt, 2005). Scholars and practitioners rely on metaphors to gain a deeper understanding of various domains (Morgan & Reichert, 1999). Metaphors may not provide a perfect fit to the actual situation being analyzed. In order to reap the benefits, the use of metaphors can offer, one should not concentrate on judging the suitability of a metaphor. Instead, one should try to examine the metaphor to see hitherto unseen perspectives on the problem or situation being analyzed. Metaphors can be used to perform a variety of analyses (Palmer & Dunford, 1996) as they can facilitate and further our understanding (Cornelissen et al., 2008), trigger new avenues for analysis, and surface new relationships. As regards to terms and their relationships in a field, metaphors have the power to connect various terms together in order to illuminate the big picture.

5. A Novel Metaphor

In our metaphor, an open innovation system corresponds to an electrical circuit. With this metaphor, we can easily connect and understand important regularly-used terms in the open innovation domain by thinking through the metaphor.

In accordance to the objective of this study, a novel metaphor concerning the terminology of open innovation is presented in Figure 1. An electrical circuit is used in the metaphor. The regularly used open innovation terms namely inbound open innovation, outbound open innovation, sequential coherence, dynamic innovation capabilities, knowledge flow, absorptive capacity, and organizational inertia are included in the metaphor.

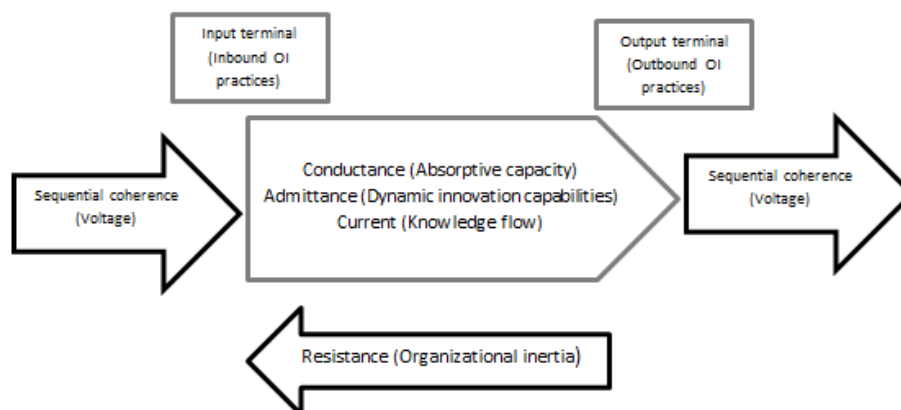


Figure 1. A novel metaphor concerning the terminology of open innovation. An electrical circuit is used in the metaphor

Knowledge available within an external entity can be routed to a focal firm through inbound open innovation activities (Hung & Chou, 2013; Naqshbandi et al., 2016). Similarly, knowledge inside the company can be commercialized through outbound open innovation activities (Hung & Chou, 2013; Cassiman & Valentini, 2016; Huizingh, 2011). Such knowledge flows correspond to the current flowing through an electrical circuit. Inbound open innovation activities and outbound open innovation activities, which are the drivers and enabling factors (Galati et al., 2016), act as the input and output terminals respectively. Inbound open innovation enables an organization to explore the external knowledge sourced from outside the firm in order to create competitive advantage (Hung & Chou, 2013; Bianchi et al., 2011; Naqshbandi et al., 2016; Zincir & Rus, 2019; Sivam et al., 2019; De Beule & Van Beveren, 2019).

Open innovation is about the knowledge flows of an organization. In our metaphor, the knowledge flow in a firm corresponds to the current (I) in an electrical circuit:

current = **knowledge flow.**

Organizational inertia is another concept frequently cited and tested by researchers in the open innovation domain. Organizational inertia refers to the inertia within the organization that prevents and discourages change (Wong-Mingji & Millette, 2002). Insufficient adaptation to changes in the environment can be detrimental to the organization (Hannan & Freeman, 1984). In our metaphor, organizational inertia corresponds to the resistance (R) of the circuit:

resistance = **organizational inertia.**

Voltage (V) is the pressure from the power source of an electrical circuit that creates an electrical current by pushing charged particles, like electrons, through a conducting loop. The terms *voltage* and *electrical potential difference* are often used interchangeably. Electrical potential difference is the potential energy difference between two points in a circuit.

In our metaphor, voltage corresponds to the pressure created at the boundaries known as sequential coherence, as shown in Figure 1. Sequential coherence refers to the reciprocal result of the pushing effects induced by individuals of a teaching firm and the pulling effects induced by individuals of a learning firm that enables knowledge to flow across the boundaries of firms (Yapa et al., 2019 A). Sequential coherence is measured through the willingness and ability of the participants of teacher firm and the preparedness and ability of the participants from the student firm respectively (Yapa et al., 2019 B). Dynamic innovation capabilities are the abilities of an organization to integrate, build, and reconfigure internal and external competencies in order to meet the demands of a rapidly changing environment (Teece et al., 1997). Following the work of Zollo and Winter (2002), Cheng and Chen (2013) described dynamic innovation capabilities as those hard-to-transfer and hard-to-imitate innovation capabilities that firms use to develop, integrate, and reconfigure existing and new resources and capabilities. In our metaphor dynamic innovation capabilities correspond to admittance. Admittance (Y) refers to the circuit elements' allowance of the flow of current. We see this intentional tolerance as the reason for the flexibility and robustness in the circuit in relation to accommodating fluctuations of input conditions.

Thus, in our metaphor *voltage* corresponds to sequential coherence.

voltage = **sequential coherence**

The corresponding term for *dynamic innovation capabilities* is *admittance*:

admittance = **dynamic innovation capabilities.**

Absorptive capacity plays a vital role in the innovation activities of an organization (Lane et al., 2006; Cui et al., 2018). Cohen and Levinthal (1990) described *absorptive capacity* as the ability of an organization to recognize the value of external knowledge, assimilate it, and apply it for commercial ends. The external knowledge inflows of a firm influence innovations indirectly through absorptive capacity (De Zubieli et al., 2016). In our metaphor, *absorptive capacity* corresponds to the conductivity of an electrical circuit. Conductivity (σ) and *resistance* (R) are the two sides of the same coin. They are inversely related. By strengthening its absorptive capacity, an organization can overcome organizational inertia (Godkin, 2010). Similarly, Cheng, and Chen (2013) use the concepts of *absorptive capacity* and *organizational inertia* to describe dynamic innovation capabilities.

The higher the voltage difference is and the better the conductivity is, the higher the current flowing through an electrical circuit is. The absorptive capacity of a firm corresponds to conductivity here. Escribano et al. (2009) argue that organizations with higher levels of absorptive capacity can manage external knowledge flows more efficiently and stimulate innovations. Absorptive capacity is a pre-condition for an organization internalizing the

external knowledge coming through inbound open innovation activities (Kim et al., 2016; Huang et al., 2015; Spithoven, 2010). A firm's absorptive capacity determines the extent to which extramural knowledge is utilized (Cohen & Levinthal, 1990). Thus, in our metaphor *conductivity* corresponds to *absorptive capacity*:

conductivity = **absorptive capacity**.

The equation $I = V/R$ and the open innovation metaphor

Ohm's law states that the current through a conductor between two points is directly proportionate to the voltage across the two points, provided that the resistance is constant. The equation is $I = V/R$. The metaphorical interpretation is that the knowledge flow is directly proportional to the pressure created by sequential coherence when organizational inertia remains constant.

In the literature, the relationship between absorptive capacity and organizational inertia is not well explored. Hedberg and Wolf (2003) argued that absorptive capacity can be limited by organizational inertia. It is interesting how well the new metaphor can increase our understanding of this relationship. In the metaphor, absorptive capacity corresponds to conductance and organizational inertia to resistance. In an electrical circuit, higher conductivity means lower resistance and vice versa. Correspondingly, in an organization, higher absorptive capacity means lower organizational inertia. Furthermore, higher organizational inertia, or in other words reluctance to accommodate change, can hinder the absorptive capacity of a firm.

6. Ambidexterity in Innovation

An ambidextrous firm is capable of striking a balance between exploring external knowledge and exploiting internal knowledge. Such firms are more likely to record superior performance compared to an organization selecting one at the expense of the other (Thushman & O'Reilly, 1996). Although, making both inbound and outbound open innovation work for an organization simultaneously is challenging, it can ensure smooth knowledge flows, leading to better performance (Cassiman & Valentini, 2015).

A ground path facilitated by diodes, varistors, and gas discharge tubes is a common feature in electrical circuits. With a ground path, any excessive voltage can be grounded before it damages the circuit, any connected devices, or people. How does this correspond to the open innovation setting? Too much information is harmful (Himma, 2007). It can lead to stress and fatigue among employees and the failure of the system to produce the expected results (Lee et al., 2016). Knowledge repositories, archival systems, and the discard of unnecessary information are some useful management practices that managers may use. These correspond to various types of diodes, varistors, and gas discharge tubes in the ground path of an electrical circuit.

7. What Else Can We Learn from This Metaphor?

Open innovation demonstrates how firms intentionally open up innovation processes in order to acquire knowledge and to collaborate (Chesbrough, 2003; Naqshbandi, 2016; Remneland-Wikhamn & Wikhamn, 2011). Switching plays a vital role in an electrical circuit. Switching ensures the proper functionalities that are expected from the circuit. In the metaphor, switching is understood to correspond to coordination, an elementary function of managers. Coordination is defined as managing interdependencies (Malone & Crowston, 1994; Crowston, 1997; Sinha & Van de Ven, 2005; Slepunov et al., 2014) and this area needs more exploration in open innovation. Component compatibility and interoperability are important in building and managing electrical circuits. This corresponds to the case of managing an effective open innovation system (Maxwell, 2006; Gasser & Palfrey, 2007; de Mattos et al., 2018).

An organization can simply act as a conductor or a super conductor in an innovation network without any returns to the organization itself. The organization simply acts as a bridge in the knowledge flow. High conductance of an electrical circuit can ensure efficient power transmission. Correspondingly, in a network of organizations, the focal firm can grasp knowledge and route it to another organization with no distortions. Is it worth the trouble? Therefore, we suggest that alignment of goals, interests, and culture between partner firms is important for better performance in open innovation. Understanding the necessity of proper alignment and coordination among each and every organization is another point emanating from the new metaphor. In addressing synergy gains and knowledge spillover in open innovation, the new metaphor can bring useful insights.

How to reduce organizational inertia is another concern in open innovation activities. The corresponding term for organizational inertia in our metaphor is *resistance*. The domain literature pertaining to physics and engineering suggests why resistance goes up and ways to address this, such as changing the length of the conductor, the material composition, the area of the cross section, and the temperature. This suggests to us the necessity to pay attention to the organizational structure, selection, job design, and the allocation of work in order to reduce organizational inertia.

The resistance of metallic conductors will increase with an increase in temperature, making the conductivity decrease. In order to increase conductivity, the current flow and voltage have to be regulated. In the metaphor, *temperature* can be assumed to correspond to the activity level of an organization. In accordance, a higher activity level makes the place busy and heated up. Correspondingly, in the metaphor, an increase in workload may increase organizational inertia, reducing the absorptive capacity of the firm. When the motive is to see an increase in absorptive capacity, the management may attempt to influence absorptive capacity through knowledge flow, which corresponds to electric current, and aligning it with technology push and market push, which correspond to voltage.

Feedback loops are common in electrical circuits. Feedback loops are a way of ensuring the self-alignment of the system. Correspondingly, in knowledge flows, having a feedback system is essential (Rubenstein-Montano et al., 2001). Feedback systems enhance the efficiency and effectiveness of an open innovation network.

8. Connecting the Metaphor to Innovation Performance

In analyzing open innovation, one of the most tested dependent variables has been innovation performance (Ahn et al., 2016; Cheng et al., 2016; Belussi et al., 2010; Bianchi et al., 2015; Cassiman & Valentini, 2016; Seyfettinoglu, 2016). Innovation performance has been measured by process and product innovations (Greco et al., 2016; Laursen & Salter, 2006), incremental and radical innovations (Gassmann, 2006), revenue (Caputo et al., 2016; Chaston, 2013), and profits (Faems, 2010; Mazzola et al., 2016). In our metaphor, *innovation performance* corresponds to the power (W) of an electrical circuit. The equation $W = VI$ describes the relationship between power, voltage, and electric current. Correspondingly, in our metaphor, the innovation performance of an organization is a function of two variables. Firstly, the boundary conditions created by sequential coherence that facilitate knowledge flow across the organizational boundaries. Secondly, the knowledge flow within the organization, which is influenced by absorptive capacity and organizational inertia of the organization.

What will happen if we continue to increase the admittance of an electrical circuit? For an example, let us consider replacing a 60 W bulb in a simple circuit with a 100 W bulb. The 100 W bulb will glow brighter than the 60 W bulb did. This represents an increase in performance. Will the performance keep on increasing if we keep on increasing the admittance? No, performance will eventually reach a maximum level and then performance will drop as the light bulbs or other parts of the electrical circuit cannot handle the corresponding increased current. The electrical circuit eventually completely fails. In our metaphor, admittance corresponds to dynamic innovation capabilities. Cheng and Chen (2013) have suggested that dynamic innovation capabilities show an inverted U-shaped relationship with innovation performance. These corresponding relationships provide further evidence of the effectiveness of our metaphor in creating a deeper understanding of open innovation.

9. Future Research Opportunities

This study is preliminary and explorative in nature. It offers an ample source for future research studies. Bogers et al. (2017) have emphasized the importance of examining the effectiveness of open innovation in terms of innovation performance and overall firm performance. How to maximize efficiency is a new topic for open innovation research (Greco et al., 2017; Bogers et al., 2019). The domains of physics and electrical engineering use a wide array of terms when measuring the efficiency and effectiveness of entities such as devices, components, and systems. We believe that our metaphor can assist future researchers exploring the topics of the efficiency and effectiveness of open innovation by using analogies in those domains.

The reconceptualization of absorptive capacity by Zahra and George (2002) introduced four dimensions: acquisition, assimilation, transformation, and exploitation. Acquisition and assimilation that attempt to leverage the firm's ability to receive and recognize external knowledge represent potential absorptive capacity. Transformation and exploitation that attempt to leverage the absorbed knowledge represent realized absorptive capacity. Existing theories and frameworks have limitations when explaining why there can be a gap between potential and realized absorptive capacities and how to bridge this gap where it exists. The new metaphor may provide us with clues regarding these issues. Another unexplained or less researched area is the mobility of knowledge across the four listed areas of absorptive capacity.

Dahlander and Gann (2010) used the term *permeability* in explaining different situation-dependent levels of openness in open innovation. The way of how different types of permeability—such as apparent, absolute, and intrinsic permeability—influence conductance is researched in various disciplines of science. Absorptive capacity is represented by conductance in our metaphor. It can be further studied through permeability perspectives in science by future researchers in order to bring new insights for open innovation researchers and practitioners.

10. Conclusion

This article presents a metaphor concerning the terminology of open innovation. This metaphor helps both academics and practitioners in getting a deeper understanding of the terms and their relationships in this emerging field. An electrical circuit is used as the metaphor. Table 1 lists the terms used in the metaphor of an electrical circuit and their corresponding terms in open innovation. The terms are listed in alphabetical order.

Table 1. The terms used in the metaphor of an electrical circuit and their corresponding terms in open innovation. The terms are listed in alphabetical order

Terms used in the metaphor of an electrical circuit	Corresponding terms in open innovation
Admittance	Dynamic innovation capabilities
Conductance	Absorptive capacity
Current	Knowledge flow
Input terminal	Inbound open innovation practices
Output terminal	Outbound open innovation practices
Power	Innovation performance
Resistance	Organizational inertia
Voltage	Sequential coherence

According to Hunt and Menon (1995), metaphors are theoretically rich if the source discipline has a large body of models and theories. Tourangeau and Sternberg (1982) state that a greater distance between the domains can lead to a better-quality metaphor. As our metaphor comes from the disciplines of physics and engineering, we thus deem this metaphor has good grounds for increasing our understanding of the terms used in open innovation and the relationships that the terms have.

A new metaphor can offer novel, fresh insights into the patterns of interrelationships (Hunt & Menon, 1995), which have not been captured by extant frameworks in the open innovation domain. Readers should note that metaphors have their inherent weaknesses and limitations. However, due to the complex nature of interdependencies in open innovation (Lopez & Carvalho, 2018) we attempted to best explain key concepts in the domain, their inter-relationships, and their impacts on innovation performance by using the metaphor of an electrical circuit. The analysis also provides some practical insights for managers.

References

- Ahn, J. M., Ju, Y., Moon, T. H., Minshall, T., Probert, D., Sohn, S. Y., & Mortara, L. (2016). Beyond absorptive capacity in open innovation process: the relationships between openness, capacities and firm performance. *Technology Analysis & Strategic Management*, 28(9), 1009-1028. <https://doi.org/10.1080/09537325.2016.1181737>
- Al-Belushi, K. I., Stead, S. M., & Burgess, J. G. (2015). The development of marine biotechnology in Oman: Potential for capacity building through open innovation. *Marine Policy*, 57, 147-157. <https://doi.org/10.1016/j.marpol.2015.03.001>
- Belussi, F., Sammarra, A., & Sedita, S. R. (2010). Learning at the boundaries in an "Open Regional Innovation System": A focus on firms' innovation strategies in the Emilia Romagna life science industry. *Research Policy*, 39(6), 710-721. <https://doi.org/10.1016/j.respol.2010.01.014>
- Bianchi, M., Croce, A., Dell'Era, C., Di Benedetto, C. A., & Frattini, F. (2015). Organizing for inbound open innovation: How external consultants and a dedicated R&D unit influence product innovation performance. *Journal of Product Innovation Management*. <https://doi.org/10.1111/jpim.12302>
- Bogers, M., Chesbrough, H., Heaton, S., & Teece, D. J. (2019). Strategic Management of Open Innovation: A Dynamic Capabilities Perspective. *California Management Review*, 62(1), 77-94. <https://doi.org/10.1177/0008125619885150>
- Bogers, M., Zobel, A. K., Afuah, A., Almirall, E., Brunswicker, S., Dahlander, L., ... Hagedoorn, J. (2017). The open innovation research landscape: Established perspectives and emerging themes across different levels

- of analysis. *Industry and Innovation*, 24(1), 8-40. <https://doi.org/10.1080/13662716.2016.1240068>
- Caputo, M., Lambert, E., Cammarano, A., Michelino, F. (2016). Exploring the impact of open innovation on firm performance. *Management Decisions*, 54, 1788-1812. <https://doi.org/10.1108/MD-02-2015-0052>
- Cassiman, B., & Valentini, G. (2015). Open innovation: Are inbound and outbound knowledge flows really complementary? *Strategic Management Journal*. <https://doi.org/10.1002/smj.2375>
- Chaston, I. (2013). Independent financial advisors: open innovation and business performance. *The Service Industries Journal*, 33(6), 636-651. <https://doi.org/10.1080/02642069.2011.622371>
- Cheng, C. C., & Chen, J. S. (2013). Breakthrough innovation: the roles of dynamic innovation capabilities and open innovation activities. *Journal of Business & Industrial Marketing*, 28(5), 444-454. <https://doi.org/10.1108/08858621311330281>
- Cheng, C. C., & Huizingh, E. K. (2014). When is open innovation beneficial? The role of strategic orientation. *Journal of Product Innovation Management*, 31(6), 1235-1253. <https://doi.org/10.1111/jpim.12148>
- Cheng, C. C., Yang, C., & Sheu, C. (2016). Effects of open innovation and knowledge-based dynamic capabilities on radical innovation: An empirical study. *Journal of Engineering and Technology Management*, 41, 79-91. <https://doi.org/10.1016/j.jengtecman.2016.07.002>
- Chesbrough, H. (2003). The logic of open innovation: managing intellectual property. *California Management Review*, 45(3), 33-58. <https://doi.org/10.1177/000812560304500301>
- Chesbrough, H. (2020). To recover faster from Covid-19, open up: Managerial implications from an open innovation perspective. *Industrial Marketing Management*. <https://doi.org/10.1016/j.indmarman.2020.04.010>
- Chesbrough, H., & Tucci, C. L. (2020). *The Interplay between Open Innovation and Lean Startup, or, Why Large Companies are not Large Versions of Startups*. <https://doi.org/10.1561/111.00000013>
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, 128-152. <https://doi.org/10.2307/2393553>
- Cornelissen, J. P., Oswick, C., Christensen, L. T., & Phillips, N. (2008). Metaphor in organizational research: Context, modalities and implications for research—Introduction. *Organization Studies*, 29(1), 7-22. <https://doi.org/10.1177/0170840607086634>
- Crowston, K. (1997). A coordination theory approach to organizational process design. *Organization Science*, 8(2), 157-175. <https://doi.org/10.1287/orsc.8.2.157>
- Dahlander, L., & Gann, D. M. (2010). How open is innovation? *Research policy*, 39(6), 699-709. <https://doi.org/10.1016/j.respol.2010.01.013>
- De Beule, F., & Van Beveren, I. (2019). Sources of open innovation in foreign subsidiaries: An enriched typology. *International Business Review*, 28(1), 135-147. <https://doi.org/10.1016/j.ibusrev.2018.08.005>
- de Mattos, C. A., Kissimoto, K. O., & Laurindo, F. J. B. (2018). The role of information technology for building virtual environments to integrate crowdsourcing mechanisms into the open innovation process. *Technological forecasting and social change*, 129, 143-153. <https://doi.org/10.1016/j.techfore.2017.12.020>
- De Zubielqui, G. C., Jones, J., & Lester, L. (2016). Knowledge inflow from market and science-based actors, absorptive capacity, innovation and performance – A study of SMEs. *International Journal of Innovation Management*, 20(06), 1650055. <https://doi.org/10.1142/S1363919616500559>
- Escribano, A., Fosfuri, A., & Tribó J. A. (2009). Managing external knowledge flows: The moderating role of absorptive capacity. *Research policy*, 38(1), 96-105. <https://doi.org/10.1016/j.respol.2008.10.022>
- Faems, D., De Visser, M., Andries, P., & Van Looy, B. (2010). Technology alliance portfolios and financial performance: value-enhancing and cost-increasing effects of open innovation. *Journal of Product Innovation Management*, 27(6), 785-796. <https://doi.org/10.1111/j.1540-5885.2010.00752.x>
- Galati, F., Bigliardi, B., & Petroni, A. (2016). Open innovation in food firms: Implementation strategies, drivers and enabling factors. *International Journal of Innovation Management*, 20(03), 1650042. <https://doi.org/10.1142/S1363919616500420>
- Gasser, U., & Palfrey, J. G. (2007). *Breaking down digital barriers: When and how ICT interoperability drives innovation*. <https://doi.org/10.2139/ssrn.1033226>

- Gassmann, O. (2006). Opening up the innovation process: towards an agenda. *R&d Management*, 36(3), 223-228. <https://doi.org/10.1111/j.1467-9310.2006.00437.x>
- Godkin, L. (2010). The zone of inertia: absorptive capacity and organizational change. *The Learning Organization*, 17(3), 196-207. <https://doi.org/10.1108/09696471011034900>
- Greco, M., Grimaldi, M., & Cricelli, L. (2016). An analysis of the open innovation effect on firm performance. *European Management Journal*, 34, 501-516. <https://doi.org/10.1016/j.emj.2016.02.008>
- Greco, M., Locatelli, G., & Lisi, S. (2017). Open innovation in the power & energy sector: Bringing together government policies, companies' interests, and academic essence. *Energy Policy*, 104, 316-324. <https://doi.org/10.1016/j.enpol.2017.01.049>
- Hannan, M. T., & Freeman, J. (1984). Structural inertia and organizational change. *American sociological review*, 49, 149-164. <https://doi.org/10.2307/2095567>
- Himma, K. E. (2007). The concept of information overload: A preliminary step in understanding the nature of a harmful information-related condition. *Ethics and Information Technology*, 9(4), 259-272. <https://doi.org/10.1007/s10676-007-9140-8>
- Hossain, M., & Kauranen, I. (2016). Open innovation in SMEs: a systematic literature review. *Journal of Strategy and Management*, 9(1), 58-73. <https://doi.org/10.1108/JSMA-08-2014-0072>
- Huang, F., Rice, J., & Martin, N. (2015). Does open innovation apply to China? Exploring the contingent role of external knowledge sources and internal absorptive capacity in Chinese large firms and SMEs. *Journal of Management & Organization*, 21(05), 594-613. <https://doi.org/10.1017/jmo.2014.79>
- Huizing, E. K. R. E. (2011). Open innovation: State of the art and future perspectives. *Technovation*, 31, 2-9. <https://doi.org/10.1016/j.technovation.2010.10.002>
- Hung, K. P., & Chou, C. (2013). The impact of open innovation on firm performance: The moderating effects of internal R&D and environmental turbulence. *Technovation*, 33(10), 368-380. <https://doi.org/10.1016/j.technovation.2013.06.006>
- Hunt, S. D., & Menon, A. (1995). Metaphors and competitive advantage: Evaluating the use of metaphors in theories of competitive strategy. *Journal of Business Research*, 33(2), 81-90. [https://doi.org/10.1016/0148-2963\(94\)00057-L](https://doi.org/10.1016/0148-2963(94)00057-L)
- Kim, B., Kim, E., & Foss, N. J. (2016). Balancing absorptive capacity and inbound open innovation for sustained innovative performance: an attention-based view. *European Management Journal*, 34(1), 80-90. <https://doi.org/10.1016/j.emj.2015.10.002>
- Laursen, K., & Salter, A. (2006). Open for innovation: the role of openness in explaining innovation performance among UK manufacturing firms. *Strategic management journal*, 27(2), 131-150. <https://doi.org/10.1002/smj.507>
- Lazzarotti, V., Manzini, R., Nosella, A., & Pellegrini, L. (2017). Innovation ambidexterity of open firms. The role of internal relational social capital. *Technology Analysis & Strategic Management*, 29(1), 105-118. <https://doi.org/10.1080/09537325.2016.1210119>
- Lee, A. R., Son, S. M., & Kim, K. K. (2016). Information and communication technology overload and social networking service fatigue: A stress perspective. *Computers in Human Behavior*, 55, 51-61. <https://doi.org/10.1016/j.chb.2015.08.011>
- Lee, C. S., Chen, Y. C., Tsui, P. L., & Yu, T. H. (2014). Examining the relations between open innovation climate and job satisfaction with a PLS path model. *Quality & Quantity*, 48(3), 1705-1722. <https://doi.org/10.1007/s11135-013-9869-6>
- Lopes, A. P. V. B. V. & Carvalho, M. M. D. (2018). Evolution of the open innovation paradigm: Towards a contingency conceptual model. *Technological Forecasting & Social Change*, 132, 284-298. <https://doi.org/10.1016/j.techfore.2018.02.014>
- Malone, T. W., & Crowston, K. (1994). The interdisciplinary study of coordination. *ACM Computing Surveys (CSUR)*, 26(1), 87-119. <https://doi.org/10.1145/174666.174668>
- Maxwell, E. (2006). Open standards, open source, and open innovation: Harnessing the benefits of openness. *innovations*, 1(3), 119-176. <https://doi.org/10.1162/itgg.2006.1.3.119>
- Mazzola, E., Bruccoleri, M., & Perrone, G. (2016). Open innovation and firm's performance: state of the art and

- empirical evidences from the bio-pharmaceutical industry. *International Journal of Technology Management*, 70(2-3), 109-134. <https://doi.org/10.1504/IJTM.2016.075152>
- Morgan, S. E., & Reichert, T. (1999). The message is in the metaphor: Assessing the comprehension of metaphors in advertisements. *Journal of Advertising*, 28(4), 1-12. <https://doi.org/10.1080/00913367.1999.10673592>
- Naqshbandi, M. M. (2016). Managerial ties and open innovation: examining the role of absorptive capacity. *Management Decision*, 54(9), 2256-2276. <https://doi.org/10.1108/MD-03-2016-0161>
- Noh, Y. (2015). Financial effects of open innovation in the manufacturing industry. *Management Decision*, 53(7), 1527-1544. <https://doi.org/10.1108/MD-12-2014-0681>
- Ortony, A. (1979). Some psycholinguistic aspects of metaphor. *Center for the Study of Reading Technical Report; no. 112*.
- Palmer, I., & Dunford, R. (1996). Conflicting uses of metaphors: Reconceptualizing their use in the field of organizational change. *Academy of Management Review*, 21(3), 691-717. <https://doi.org/10.5465/amr.1996.9702100312>
- Randhawa, K., Wilden, R., & Hohberger, J. (2016). A bibliometric review of open innovation: setting a research agenda. *Journal of Production & Innovation Management*, 33, 750-772. <https://doi.org/10.1111/jpim.12312>
- Remneland-Wikhamn, B., & Wikhamn, W. (2011). Open innovation climate measure: The introduction of a validated scale. *Creativity and Innovation Management*, 20(4), 284-295. <https://doi.org/10.1111/j.1467-8691.2011.00611.x>
- Rubenstein-Montano, B., Liebowitz, J., Buchwalter, J., McCaw, D., Newman, B., Rebeck, K., & Team, T. K. M. (2001). A systems thinking framework for knowledge management. *Decision support systems*, 31(1), 5-16. [https://doi.org/10.1016/S0167-9236\(00\)00116-0](https://doi.org/10.1016/S0167-9236(00)00116-0)
- Rubera, G., Chandrasekaran, D., & Ordanini, A. (2016). Open innovation, product portfolio innovativeness and firm performance: the dual role of new product development capabilities. *Journal of the Academy of Marketing Science*, 44(2), 166-184. <https://doi.org/10.1007/s11747-014-0423-4>
- Schmitt, R. (2005). Systematic metaphor analysis as a method of qualitative research. *The qualitative report*, 10(2), 358-394.
- Sekliuckiene, J., Sedzinauskiene, R., & Vibury, V. (2016). Adoption of Open Innovation in the Internationalization of Knowledge Intensive Firms. *Engineering Economics*, 27(5), 607-617. <https://doi.org/10.5755/j01.ee.27.5.15371>
- Seyfettinoglu, U. K. (2016). Analysis of relationships between firm performance and open innovation strategies and stages in the Turkish food and beverage industry. *New Medit*, 15(1), 42-53.
- Sinha, K. K., & Van de Ven, A. H. (2005). Designing work within and between organizations. *Organization Science*, 16(4), 389-408. <https://doi.org/10.1287/orsc.1050.0130>
- Sivam, A., Dieguez, T., Ferreira, L. P., & Silva, F. J. G. (2019). Key settings for successful Open Innovation Arena. *Journal of Computational Design and Engineering*. <https://doi.org/10.1016/j.jcde.2019.03.005>
- Slepinov, D., Waerens, B. V., & Johansen, J. (2014). Dynamic roles and locations of manufacturing: Imperatives of alignment and coordination with innovation. *Journal of Manufacturing Technology*. <https://doi.org/10.1108/JMTM-10-2013-0142>
- Spithoven, A. (2013). Open innovation practices and innovative performances: an international comparative perspective. *International Journal of Technology Management*, 62(1), 1-34. <https://doi.org/10.1504/IJTM.2013.053037>
- Spithoven, A., Clarysse, B., & Knockaert, M. (2011). Building absorptive capacity to organize inbound open innovation in traditional industries. *Technovation*, 31(1), 10-21. <https://doi.org/10.1016/j.technovation.2010.10.003>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, 509-533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)
- Tourangeau, R., & Sternberg, R. J. (1982). Understanding and appreciating metaphors. *Cognition*, 11(3), 203-244. [https://doi.org/10.1016/0010-0277\(82\)90016-6](https://doi.org/10.1016/0010-0277(82)90016-6)

- Tushman, M. L., & O'Reilly, C. A. (1996). The ambidextrous organizations: Managing evolutionary and revolutionary change. *California management review*, 38(4), 8-30. <https://doi.org/10.2307/41165852>
- Walsh, J. P., Lee, Y. N., & Nagaoka, S. (2016). Openness and innovation in the US: Collaboration form, idea generation and implementation. *Research Policy*, 45(8), 1660-1671. <https://doi.org/10.1016/j.respol.2016.04.013>
- West, J., & Gallagher, S. (2006). Challenges of open innovation: the paradox of firm investment in open-source software. *R&D Management*, 36(3), 319-331. <https://doi.org/10.1111/j.1467-9310.2006.00436.x>
- Wheeler, D. (1991). Metaphors for effective thinking. *Teaching decision making to adolescents*, 309-327.
- Wong-Mingji, D. J., & Millette, W. R. (2002). "Dealing With the Dynamic".
- Yapa, S. R., & Senathiraja, R. (2017). *In-bound open innovation: Whom to converge with and why?* Proceedings of the International Conference on the Humanities and the Social Sciences (ICHSS)-2017, University of Peradeniya. ISBN 978-955-589-237-7
- Yapa, S. R., Senathiraja, R., Poesche, J., & Kauranen, I. (2019, B). Sequential Coherence: A Novel Determinant of Open Innovation Performance. *American Journal of Industrial and Business Management*, 9, 1781-1799. <https://doi.org/10.4236/ajibm.2019.99117>
- Yapa, S. R., Senathiraja, R., Porsche, J., & Kauranen, I. (2019, A). The role of Sequential Coherence in Open Innovation: A qualitative inquiry. *International Conference on Business Research*. University of Moratuwa, Sri Lanka
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of management review*, 27(2), 185-203. <https://doi.org/10.5465/amr.2002.6587995>
- Zincir, O., & Rus, D. (2019). Understanding Knowledge Absorption for Inbound Open Innovation Practices: How Do Knowledge Antecedents Influence the Process? In *the Role of Knowledge Transfer in Open Innovation* (pp. 97-117). IGI Global. <https://doi.org/10.4018/978-1-5225-5849-1.ch005>
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization science*, 13(3), 339-351. <https://doi.org/10.1287/orsc.13.3.339.2780>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Digital Leadership: The Perspectives of the Apparel Manufacturing

Mohammad Alam Tareque¹, & Nazrul Islam²

¹ PhD Researcher, Bangladesh University of Professionals

² PhD, Pro VC Northern University of Bangladesh

Correspondence: Mohammad Alam Tareque, School of Management, Bangladesh University of Professionals, Mirpur Cantonment, Dhaka 1216., Bangladesh.

Received: December 23, 2020

Accepted: January 26, 2021

Online Published: January 27, 2021

doi:10.5539/ibr.v14n2p124

URL: <https://doi.org/10.5539/ibr.v14n2p124>

Abstract

The prime objective of the research was to determine how the apparel manufacturing sector is embracing digitization and its leaders are preparing for the digital age? so we wanted to find out what type of leadership style is needed for digital leadership. The present study used a sample of 50 RMG companies. We investigated relationships between three variables, Internet of Things, use of digitization-automation, use of smart phones and apps. Further, the variables' influence on digitization has been assessed through multiple factors leading to digitization by allotment of weightage for each factor. The findings in this paper supports two variables; use of automatized digital machines and internet of things being significant whereas, use of smartphones and apps is insignificant. It implies that preparation for leading in the digital age remains limited which require change oriented leadership behavior at all levels. Limitations of the paper include the data which is specific to Bangladesh RMG industry, therefore it cannot be generalized, further the economic meltdown due to COVID-19 pandemic might have influenced the results. The paper's prime contribution is based on the assessment of predictor variables and their influence that it makes in providing leadership in the digital age which demand change oriented behavior of leaders.

Keywords: ready made garments, leadership, digitization, apparel manufacturing, Bangladesh

1. Introduction

Today's works of literature on technology and digitization dominate volatility, uncertainty, complexity and ambiguity (VUCA), together they name it a "VUCA WORLD". Industry 4.0, Smart Factory, Disruptive Changes, Fast-Paced Innovations, Smart clothing are buzzwords dominating technological vocabularies. Changing to digitization, organizations will have to intensely contribute in building capabilities in information and network, analytics and intelligence, conversion to the physical and virtual world, and human-machine interaction to urge the foremost out of Industry 4.0 or Apparel 4.0 (Oberer & Erkollar, 2018). The savvy production lines and the rise of the ramble time emphasize the utility of sewbots in attire fabricating and apparel manufacturing – smart clothes.

HL Chan (2016) found apparel producers are driven to embrace RFID innovation with the extension of both retail stores and online commerce. Brands like Levi's, Zara, M&S, Walmart actualized the innovation, Radio-Frequency Recognizable proof (RFID) tag provided the brands to their producers around the world for item-level labelling. The RFID tag is sent around the world to production lines, put interior the security alert, and connected to each attire thing. When the wrapped up /stuffed items are transported to brand's distribution centre, the item data (such as the measure, color, PO no, producer id, nation code of that specific thing) are composed into the RFID tag by encoding an interesting distinguishing proof (ID) number, and after that, the tag is associated to stockroom/ supply chain or stock administration computer program (Swedberg, 2014).

When clothing is sold, the RFID tag is evacuated utilizing the RFID detacher that transmitted the item ID to the package to overhaul the stock record and deactivated in the long run. The labels are collected and sent to retailers/store to remove all of the memory and after that are transported to the production line for reuse. The labels are moreover used for tagging the returned items on the shop floor. This is often an illustration of digitization of attire fabricating (HL Chan, 2016). Long before, in the 90s, we (RMG Bangladesh) have already adopted Enterprise Resource Planning (ERP) for production planning and monitoring, management information system (MIS) for HR, payrolls, attendance and fingerprint access controls for workers, facial or biometric access

control for offices, management enterprise system (MES) for productivity etc. The use of computer-aided manufacturing (CAD/CAM) tools have not only increased the precision level, reduced wastages but also enabled apparel manufacturers to relate with the previous designs, and proposed designs. The computer can consolidate other references and can compare using logic (Choi, 2016). Digitization in apparel manufacturing is progressing in a fast-paced, disruptive way. It is not only reducing the lead time, lowering the cost of manufacturing, lessening periodical maintenance by predictive maintenance, minimizing the time of machine breakdown and creating a synergistic environment of production with zero re-work. The modeling and simulation of sewing lines through the batch process or a single piece flow enables the planner to find out the accurate method and achieve zero change over time.

It is, therefore, significant that we study the process of digitization in apparel manufacturing sector taking Bangladesh as a case study which is the second-largest exporter of apparels after China and finds out our present status with a view to advancing to the next level to remain competitive in the global market. We have to identify the factors needed to graduate to the next level and what leaders need to do for achieving the digital progress. The purpose of the article is to explore and explain the terms of digital leadership and leadership in the digital age and relate it to the RMG sector of Bangladesh. The aim is simple: to find out how are we (RMG) preparing for the leadership in the digital age in the RMG sector of Bangladesh?

2. Literature Review and Definitions

2.1 Cyber-Physical Systems (CPS)

CPS may be defined as a complex/ built framework that integrates physical, computation and organizing, and communication of different forms. CPS can be illustrated as a virtual or physical gadget, equipment, gear that's interpreted into the internet as a virtual show/reality or a model (Lee, 2015)

2.2 Internet of Things (IoT)

IoT can be characterized as communication among gadgets, machines, and gear with their virtual identities and capabilities as a result of mechanical propels and technological advances. These physical frameworks have ended up being smart and can consequently conduct a few mechanical operations as a result of these automatic associations (Görçün, 2018). The IoT could be a broadly utilized term for a set of advances, frameworks, and plan standards related with the rising wave of Internet-connected things that are based on the physical environment (Holler et al. 2014). Today's literatures on technology and digitization dominates volatility, uncertainty, complexity and ambiguity (VUCA),¹ together they name it a "VUCA WORLD".

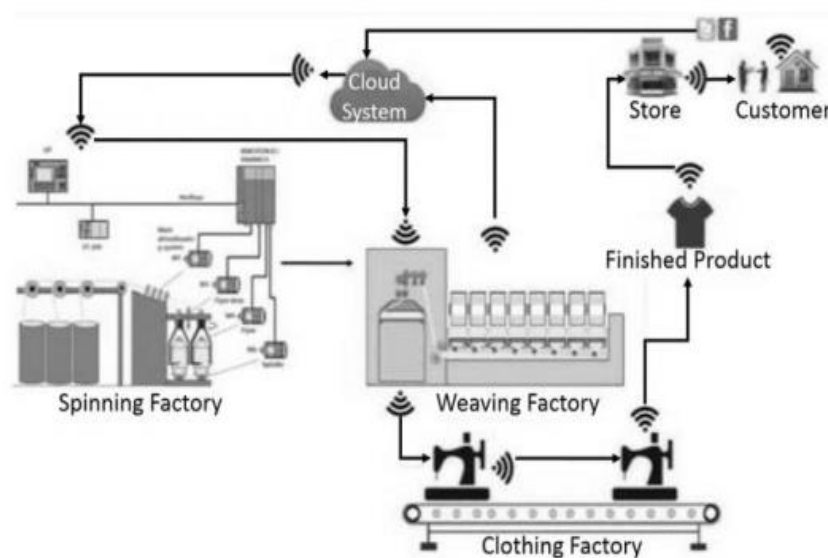


Figure 1. An Example of IoT in RMG (Adapted from Ömer Faruk Görçün, 2018)

¹ <https://hbr.org/2014/01/what-vuca-really-means-for-you>

2.3 Smart Phones

Now, IoT is circled around the smartphones and the heart of IOT, machine learning, M2M HMI, AI, VR, we see developments that center on the gadget (smartphones) as a controller, a framework dashboard, and a security get to key, or a combination of all three, the smartphones are set as the essential human-machine interface (HMI) (Goethals et al., 2003).

2.4 Digital Leadership

Computerized/digital pioneers can be characterized practically by their commitments to the move toward a computerized stage and known as digital leaders. These incorporate mindfulness leadership, building, asset mobilization, operational leadership and administration and basic structural administration and leadership. As digital leaders, we need to evolve faster than the pace of change; we need to hone our skills and capabilities to constantly ride on top of the changes and innovations (Hensellek, 2019). There is a need to distinguish between two related but different leadership categories. The two styles of leadership are closely related - many leadership innovations originated in the core ICT sectors and diffused from there. The most inclusive is "leadership in the digital age", which refers to leadership in any institution or sector embedded in the broader transitions toward a more knowledge-intensive digitalized society. The second, "digital leadership" refers to leadership in the core sectors of the ICT society – the three 'C's of computing, communications and content (broadcasting and print), and now multi-media.

2.5 Leadership Behaviors

The Ohio and Michigan studies argued that leader displays mainly two types of behaviours: Concern for Task or Task-Oriented behaviour and Concern for People or People-Oriented Behaviour (Likert, 1960). Gary Yukl (2009) added a different notion and named it as Change Oriented Behaviours (COB). It seems in the world the only constant is the Change. The changes in technology are not only fast-paced, rather can be expressed as everyday changes. The drones, electronic cars, android and iOS all are competing for an updated version. 2.3 Smart Phones. Smartphones are at the heart of all the later patterns in IoT and machine learning in this manner, each day we see developments that center on the gadget as a controller, a framework dashboard, and a security get to key, or a combination of all three, the smartphones are set as the essential human machine interface (HMI) (Goethals et al., 2003).

2.6 Digital Leadership

Digital leaders can be defined functionally by their contributions to the transition toward a digital platform. These incorporate mindfulness leadership, building, asset mobilization, operational leadership and administration and basic structural administration and leadership. As digital leaders, we need to evolve faster than the pace of change; we need to hone our skills and capabilities to constantly ride on top of the changes and innovations (Hensellek, 2019). There is need to distinguish between two related but different leadership categories. The two styles of leadership are closely related - many leadership innovations originated in the core ICT sectors and diffused from there. The most inclusive is "leadership in the digital age", which refers to leadership in any institution or sector embedded in the broader transitions toward a more knowledge intensive digitalized society. The second, "digital leadership" refers to leadership in the core sectors of the ICT society – the three 'C's of computing, communications and content (broadcasting and print), and now multi-media.

2.7 Leadership Behaviors

The Ohio and Michigan studies argued that leader displays mainly two types of behaviours: Concern for Task or Task Oriented behaviour and Concern for People or People Oriented Behaviour (Likert, 1960). Gary Yukl (2009) added a different notion and named it as Change Oriented Behaviours (COB). It seems in the world the only constant is the Change. The changes in technology are not only fast paced, rather can be expressed as everyday changes. The drones, electronic cars, android and iOS all are competing for an updated version.

3. The Process of Transformation

The RMG industry experiencing a transformation which incorporates the digitization of RMG new generation forms extending from concept to post-retail. Bangladesh RMG is receiving the 'Apparel 4.0' concept and this will empower the producers to screen and robotize the whole generation handle with total supply chain. Attire fabricating 4.0 has major applications in keen clothing, lean clothing and smart clothing, mechanical-technological mechanization, independent and shared automation, mechanical IOT, expanded reality, augmented reality, virtual reality, Machine-to-Machine (M2M) communication in sewing machines, lean automated lines, 3D printing, sharp surfaces and counterfeit insights or artificial intelligence (AI) RMG implanted mechanical automated ERP (undertaking resource orchestrating) etc. Neighbouring countries of

Bangladesh such as India, China and Vietnam are also rapidly implementing the Apparel 4.0 technologies in their factories. Raymond from India has started using the sewbot technology. Chinese garment manufacturers are introducing the smart clothing, augmented reality, and 3D printing in their factories. Vietnam has significantly developed Radio Frequency Identification Device (RFID), additive manufacturing and ERP².

To contribute to improving efficiency, transparency and accountability of RMG in Bangladesh, “Mapped in Bangladesh (MiB)” has been undertaking a 4-year research initiative by Centre for Entrepreneurship Development (CED) of BRAC University [CED-BRACU] and BRAC. The implementing organisation is aiming to map the RMG industry across all garment-producing districts in the country. MiB's design and implementation are in response to a lack of essential industry data, such as: how many export-oriented factories exist in the country? RMG gender ratio of workers employed, kind of products are produced and if any smart clothes 4.0? and brands working with them, etc., and other relevant information.³ Since Industry 4.0 or Apparels /Smart attire 4.0 involves digitization of manufacturing processes of clothing, industrial facilities are in its introductory stage, it is advised to seek experts and aim only to important ones rather than to overstate its importance for the industry. We should avoid exaggerating its significance for the manufacturing industry. Most textile manufacturing, lacking innovation, is at mid-low end of the value chain. It is feasible to consider the ROI for both the new upgrading and the basic construction. Several issues must be resolved, such as setting and implementation of the industry standard, device protocol and information sharing scheme (Chen & Xing, 2015).

4. Leadership Styles in Digital Age

Leadership and managers play a crucial role in firms' innovation efforts (Damanpour, 1991; Smith & Tushman, 2005; Wrede & Dauth, 2020). Digital leadership is based on innovations and rapid changes. The most important is to remain updated on changes that affects the firm's competency, innovations that need to be incorporated to remain competitive. Research findings on digital leadership style indicated that it is highly impactful in transforming organizations and employee-based involvement and input played a critical role in the success of the change effort. the development of a digital culture is launched by top managers and leaders actively shape the transformation by building relationships with various and diverse stakeholders (Cortellazzo et al. 2019).

5. Where Do We Stand?

The literatures suggest that the digital transformation progresses in phases. It begins with the simple conversion of information from an analog into a digital format (i.e., ‘digitization’) (Loebbecke & Picot, 2015), changes into the use of digital technologies to transform existing business processes (i.e., ‘digitalization’) (Li, Nucciarelli, Roden, & Graham, 2016), and finally the ‘digital transformation’ (Pagani & Pardo, 2017) affects firms in their entirety, changes and adjustments will be observable at different levels of the organization (Hausberg et al., 2019). The digital transformation is predominantly relevant to RMG sector, and China is leading in this transformation with new innovations, use of sewbot, manufacturing smart clothes, whereas India, Vietnam and Bangladesh have started the process which is very slow and to some extent limited to certain processes only. These above factors are to be used to measure the maturity of digitization in an RMG factory.

6. Research Questions and Conceptual Framework

From the literature review we have constructed the conceptual framework and incorporated the factors with in it.

- What is the state of digitization in the RMG sector?
- How the RMG leaders are preparing for digital leadership?

² (www.fibre2fashion.com).

³ (<https://www.thefinancialexpress.com.bd/views/analysis/digital-initiative-to-promote-rmg-good-governance-1594402818>).

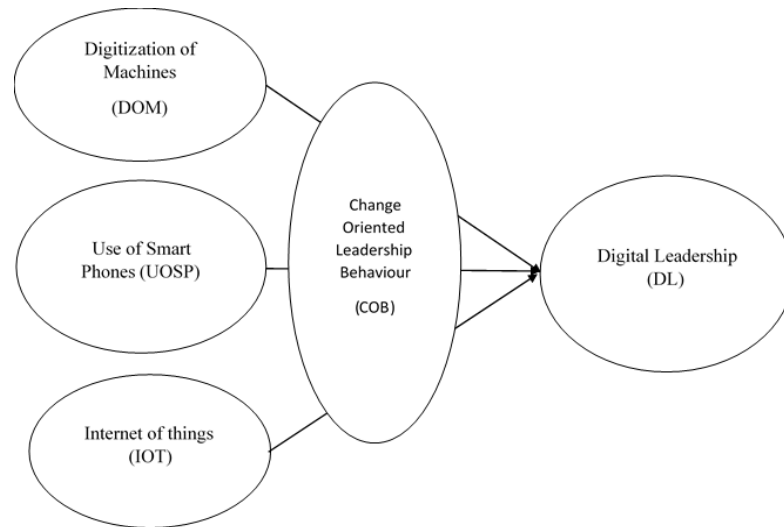


Figure 1. Conceptual Framework

Departments in garment manufacturing unit

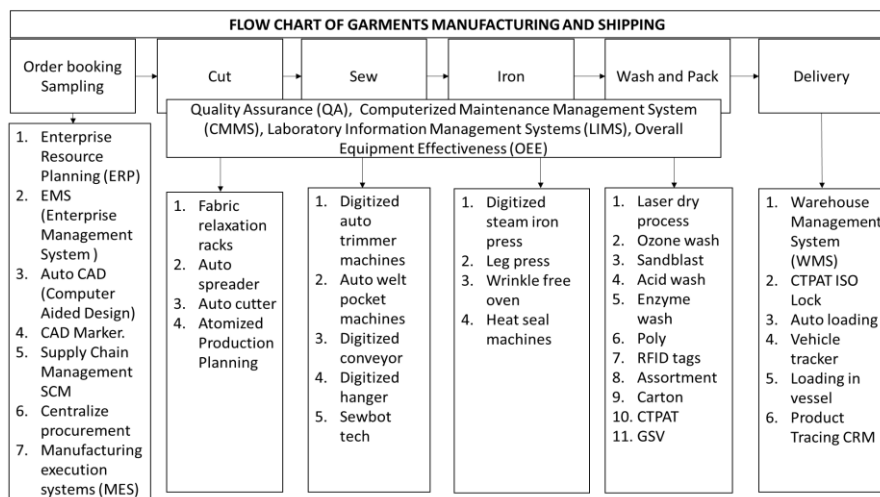


Figure 1. Flow chart of apparel manufacturing /RMG (Prepared by author)

7. Methodology

We collected primary data from 50 RMG factories by visiting them and talking to the owners, managers regarding

their digitization, automation and innovation. The digitization factors had been filtered through to reach to the most relevant ones in RMG sector, we collected data on following factors:

1. Use of auto machine
2. AR
3. Use of RFID
4. Use of Smart Phones and Apps
5. AI
6. Cloud Computing
7. Big Data
8. M2M Communication
9. VR
10. Automation, modeling and simulation
11. Automation in production of yarns, woven, and knitted fabrics
12. Automation in fabric inspection
13. Automation in spreading and cutting
14. Computer-aided design—garment designing and patternmaking
15. Automation in quality monitoring of fabrics and garment seams
16. Use of advanced tools and equipment in industrial engineering
17. Advancements in production planning and control
18. Mobile Technologies
19. 3D Printers
20. CRM and Product Traceability
21. Leadership Style/Behaviour

After collecting data, we put this into a model and found out the maturity level of digitization in the RMG sector of Bangladesh.

The model is:

$$M_D = n + i * g$$

M_D = Maturity Dimension

n = Number of Factors

i = number of maturity items

g = weightage

There is total 21 factors and 4 maturity items, and the maturity item each weightage being, 5.

A factory having 16 factors incorporated and 2 maturity items will score as:

$$M_D = 16 + 2*5 = 26 \text{ out of total score available } 40.$$

A hundred percent score will be a matured level, while a score within or below 60% is considered level 1, 80% is level 2, and level 3 is matured one. There is total 21 general factors and 4 maturity factors, maturity factors are the most advanced forms of digitization.

8. Results

8.1 Description of the Sample of 50 RMG Factories

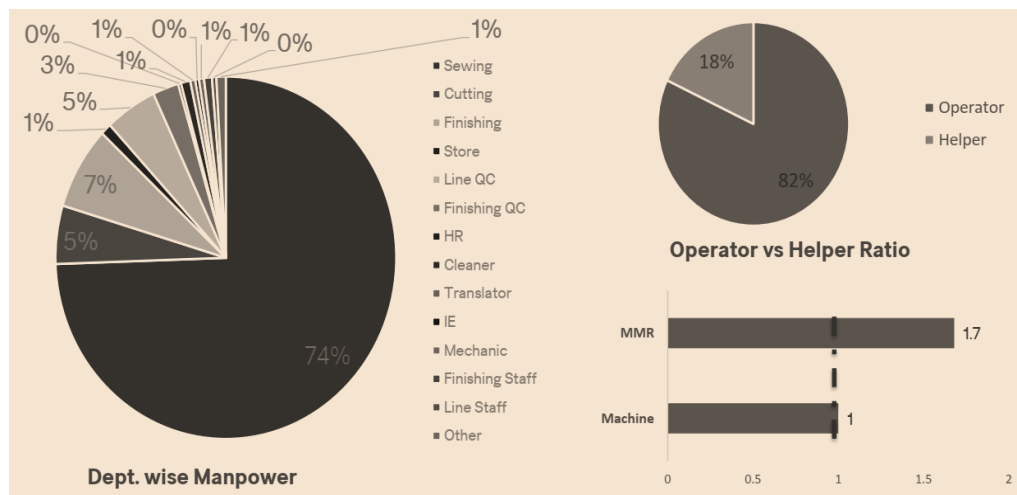


Figure 2. Man, and Machine Ratio (MMR)

A RMG factory with limited or no automation is having a Man to Machine Ratio (MMR) higher than 1:2.2 that means for one machine there are 2.2 Men employed. With medium automation it becomes 1:1.8 or 1:1.7. The automation and digitization reduce and MMR upto 1:1.4. It is well understood the more manpower employed is the more of cost of manufacturing.

The RMG sector employs direct manpower who are behind machines, and needle works and add value directly to the productivity. These are the operators, helpers and ironmen. Indirect support manpower like quality assurance staffs, industrial engineers etc. add value indirectly. Other support or admin staffs are considered as non-value add manpower. Though in MMR we calculate all held in strength, the more machines we can run and reduce support staffs the better the MMR. A lower MMR will lead to a greater productivity and reduce cost of manufacturing, digitization and automation allows to reduce support staff and increase the standard minute values produced thus shorten the lead time, change over time and nonproductive times.

The truth is, apparel brands presently perceive that in arrange to convert their working models and to end up truly consumer-centric, they will ought to drive end-to-end digitization, prepare effectiveness, cross-functional and cross-company collaboration and deeper immersion within the sourcing materials.

The benefits of digitization are numerous, the primary one, and may be the most important one is it can bring huge sustainability and transparency benefits. is colossal maintainability and straightforwardness benefits. Digitization is a major game-changer in terms of efficiency, quality and on time deliveries thus a ROI ensured in long term benefits. Digitization can help strengthening and overseeing manufacturing plant security, ensuring compliance issues, expanding traceability and even paying the workers through mobile financial services.

8.2 Tabulated Result

Serial	Factor/Digitization	Percentage	Weightage
1	Use of auto machine	100	
2,3	AR VR	0	5
4	Use of RFID	60	
5	Use of Smart Phones and Apps	8	5
6	AI	70	
7	Cloud Computing	4	
8	Big Data	0	5
9	M2M Communication	4	5
10	Automation, modeling and simulation	30	
11	Automation in production of yarns, woven, and knitted fabrics	40	
12	Automation in fabric inspection	50	
13	Automation in spreading and cutting	50	
14	Computer-aided design—garment designing and patternmaking	98	

15	Automation in quality monitoring of fabrics and garment seams	64	
16	Use of advanced tools and equipment in industrial engineering	90	
17	Advancements in production planning and control	80	
18, 19	Mobile Technologies, CRM and Product Traceability	4	
20	3D Printers	0	

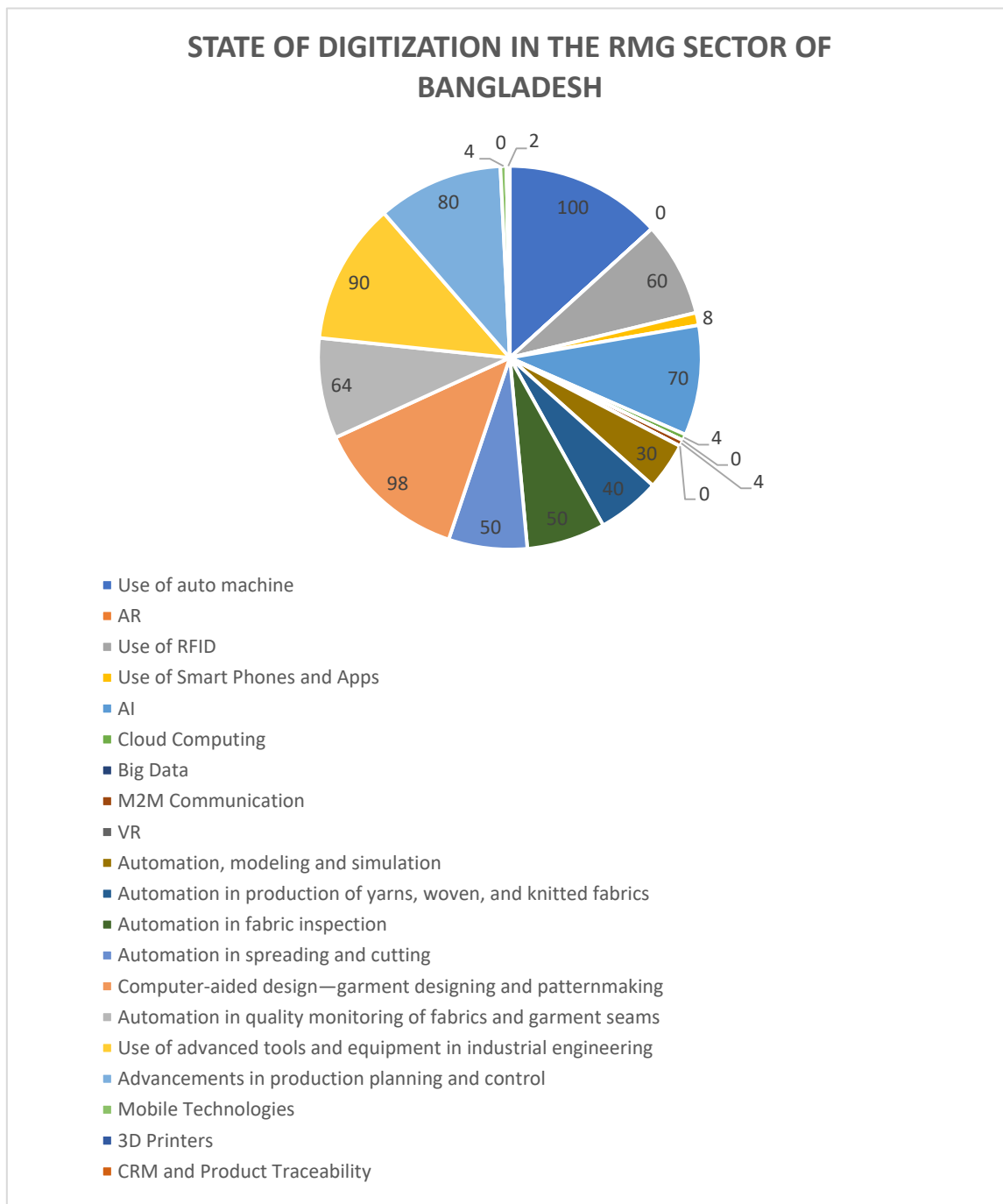


Figure 3. Results

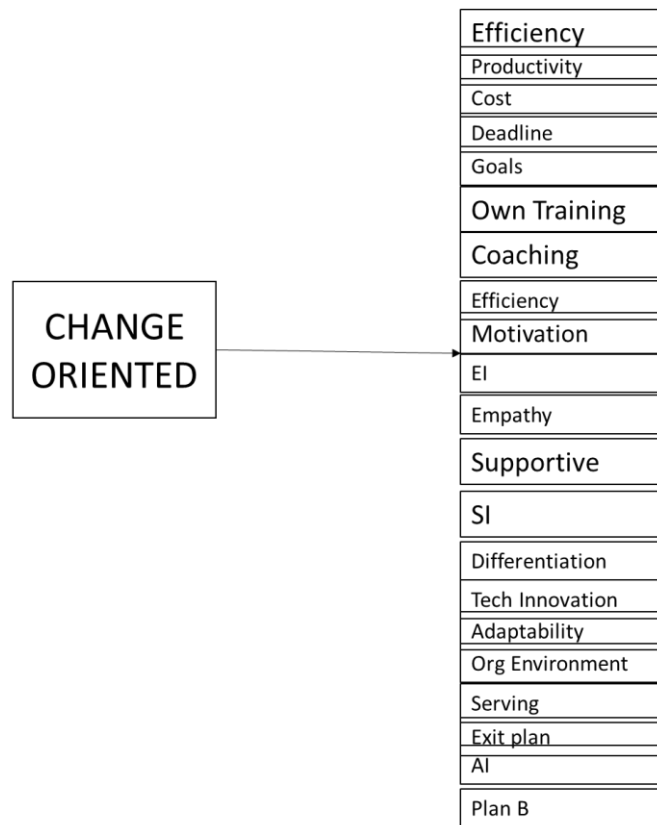


Figure 6. Results CFA

9. Discussion and Conclusion

Modern companies, today, connect information and communication technology in production and operational process (Dewan and Kraemer, 2000; Eason, 2005). In the advanced stage of the industry, however, this will be controlled and documented around the entire supply chain from the inception or idea of a product, research and development, production, use, and maintenance to recycling (Roth, 2016).

Bangladesh RMG has digitized its Global Security Verification (GSV) and Customs-Trade Partnership Against Terrorism (CTPAT) through CCTV cameras, IP cameras and RFID and through use of ISO locks and real-time product tracing. However, product design remains limited to auto CAD (computer-aided design), the 3D modelling and use of 3D printers are yet to be incorporated.

The process of manufacturing is automated and to some extent digitized isolated, for example, the cutting process is automated but not linked with the input process. The Digitized sewing process is also working stand-alone and not linked to packing. The quality assurance is more of manual then digitized ones.

From the result of the model, and the tabulations we can argue that UOSP (Use of Smart Phones is limited to information sharing through apps like WhatsApp, Viber or other apps like Skype. The use of remote apps like Zoom, Meeting, etc. facilitate the COVID time work from the home meeting, however, apps with dedicated dashboards and interface connected to processes are yet to be introduced.

The result further confirms that digitization of machines has advanced though not incorporated in a seamless machine to machines communication, 80% of the factories digitized the manufacturing process department wise. Similarly, the IoT is limited to cloud computing acting as a backup server only. In demand forecasting, decision making, the most critical information is historical data. Datasets of both products and related fast fashions are useful. Then, there must be an efficient tool to help provide reliable and useful forecasts. However, the apparel sector has not yet started using the Big Data concept for demand forecast or decision making.

Leadership styles are essential to any organization and can drive successful results; however, not all organizations can employ the appropriate styles for their existing business practices, while others utilize leadership styles to align organizational needs and required changes, the appropriate leadership style make this

transition easier (Holten & Brenner, 2015) but Bangladesh RMG leaders lacked some of the technical knowledge required to lead digitization project. Most of the leaders wanted to remain updated on the recent technological advancement however in practice they failed to show COB.

We can conclude that automation in RMG is in intermediate/level 2 stage, however, the digitization of RMG is at beginner's /level 1 where the use of smartphones are scarce, only 4% of the studied factories started using smartphones only to track and monitor productivity but yet not integrated/interfaced with IoT.

The future challenges include:

- Lack of adaptation of atomized machinery, digitization and use of advanced technologies.
- Lack of educated, highly skilled workforce
- Political unrest and unfavorable law and order
- Inadequate financial measures
- Leaders lacking in (COB) Change Oriented Leadership Behavioural mindset. Modern companies, today, connect information and communication technology in production and operational process (Dewan and Kraemer, 2000; Eason, 2005). In the advanced stage of the industry, however, this will be controlled and documented around the entire supply chain from the inception or idea of a product, research and development, production, use, and maintenance to recycling (Roth, 2016).

Bangladesh RMG has digitized its Global Security Verification (GSV) and Customs-Trade Partnership Against Terrorism (CTPAT) through CCTV cameras, IP cameras and RFID and through use of ISO locks and real time product tracing. However, product design remains limited to auto CAD (computer aided design), the 3D modelling and use of 3D printers are yet to be incorporated.

The process of manufacturing is automated and to some extent digitized isolated, for example the cutting process is automated but not linked with the input process. The Digitized sewing process is also working stand alone and not linked to packing. The quality assurance is more of manual then digitized ones.

From the result of the model, and the tabulations we can argue that UOSP (Use of Smart Phones is limited to information sharing through apps like WhatsApp, Viber or other apps like Skype. The use of remote apps like Zoom, Meeting, etc. facilitate the COVID time work from home meeting, however apps with dedicated dashboards and interface connected to processes are yet to be introduced.

The result further confirms that digitization of machines has advanced though not incorporated in a seamless machine to machines communication, 80% of the factories digitized the manufacturing process department wise. Similarly, the IoT is limited to cloud computing acting as a backup server only.

In demand forecasting, decision making, the most critical information is historical data.

Datasets of both products and related fast fashions are useful. Then, there must be an efficient tool to help provide reliable and useful forecasts. However, the apparel sector has not yet started using the Big Data concept for demand forecast or decision making.

Leadership styles are essential to any organization and can drive successful results; however, not all organizations can employ the appropriate styles for their existing business practices, while others utilize leadership styles to align organizational needs and required changes, the appropriate leadership style make this transition easier (Holten & Brenner, 2015) but Bangladesh RMG leaders lacked some of the technical knowledge required to lead digitization project. Most of the leaders wanted to remain updated on the recent technological advancement however in practice they failed to show COB.

We can conclude that automation in RMG is in intermediate/level 2 stage, however, the digitization of RMG is at beginner's /level 1 where use of smart phones are scarce, only 4% of the studied factories started using smart phones only to track and monitor productivity but yet not integrated / interfaced with IoT.

The future challenges include:

- Lack of adaptation of atomized machineries, digitization and use of advanced technologies.
- Lack of educated, high skilled workforce
- Political unrest and unfavorable law and order
- Inadequate financial measures
- Leaders lacking in (COB) Change Oriented Leadership Behavioural mindset.

10. Implications for Practice and Further Research

The implication of the study is to measure the maturity of the digitization through the model explained in methods. This study generates following questions for further research:

1. Is the manufacturing set up matured enough for digital transformation?
2. Will the digital solution meet company objectives?
3. How are digital transformations strategized?
4. How digital transformations prioritized?
5. What is the estimated time for ROI/break even cost analysis?
6. Why the COB is necessary and why are we failing to adopt this correctly?

References

- Abrar, H. S. (2020). *Adaptability of technology, digitisation in Bangladesh's RMG sector*. Retrieved from <https://thefinancialexpress.com.bd/views/views/adaptability-of-technology-digitisation-in-bangladeshs-rmg-sector-1609425899>
- Azam, M. S., Quaddus, M., & Lubna, N. (2013). Behavioral modeling of the individual's acceptance and use of internet in Bangladesh: An analysis using an integrated approach. *Journal of International Technology and Information Management*, 22(1), 7.
- Bal, A., & Satoglu, S. (2018). Managing The Digital Transformation. In *Industry 4.0: Managing The Digital Transformation*.
- Banks, G. C., Dionne, S. D., Sayama, H., & Schmid, M. (2019). Leadership in the Digital Era: Social Media, Big Data, Virtual Reality, Computational Methods, and Deep Learning. *The Leadership Quarterly*, 30(2), I-II. [https://doi.org/10.1016/s1048-9843\(19\)30120-1](https://doi.org/10.1016/s1048-9843(19)30120-1)
- Bhuiyan, A. B., Ali, M. J., Zulkifli, N., & Kumarasamy, M. M. (2020). Industry 4.0: Challenges, Opportunities, and Strategic Solutions for Bangladesh. *International Journal of Business and Management Future*, 4(2), 41-56. <https://doi.org/10.46281/ijbmf.v4i2.832>
- Brett, J. (2019). Evolving Digital Leadership. In *Evolving Digital Leadership*. <https://doi.org/10.1007/978-1-4842-3606-2>
- Chen, Z., & Xing, M. (2015). *Upgrading of textile manufacturing based on Industry 4.0*. *Icadme*, 2143-2146. Retrieved from <https://doi.org/10.2991/icadme-15.2015.400>
- Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. *Frontiers in Psychology*, 10(AUG), 1-21. <https://doi.org/10.3389/fpsyg.2019.01938>
- Daniel, A. G., Richard, B., & Mckee. (2019). *Internet of Things Architectures, Protocols and Standards* (Vol. 53, Issue 9). <https://doi.org/10.1017/CBO9781107415324.004>
- Day, D. V., & Antonakis, J. (2013). The Future of Leadership. *The Wiley-Blackwell Handbook of the Psychology of Leadership, Change, and Organizational Development*, 221-235. <https://doi.org/10.1002/9781118326404.ch11>
- Fahim, M. R. I., Chyon, F. A., Suman, M. N. H., & Islam, M. Z. (2020). *Time Befitting Supply Chain for the Future of Bangladesh Apparel Industry by Aligning Industry 4.0*.
- Flarey, D. L. (1996). Reinventing Leadership. *The Journal of Nursing Administration*, 26(10), 9,10. <https://doi.org/10.1097/00005110-199610000-00003>
- Goethals, G. R., Sorenson, G., Burns, M., & Burns, J. M. (2003). LEADERSHIP IN THE DIGITAL AGE Ernest J. Wilson III To Appear in The Encyclopedia of Leadership. *The Encyclopedia of Leadership*, 1-5. <https://doi.org/10.4135/9781412952392>
- Gürçün, Ö. F. (2018). The Rise of Smart Factories in the Fourth Industrial Revolution and Its Impacts on the Textile Industry. *International Journal of Materials, Mechanics and Manufacturing*, 6(2), 136-141. <https://doi.org/10.18178/ijmmm.2018.6.2.363>
- Guizani, M. (2019). The industrial internet of things. In *IEEE Network* (Vol. 33, Issue 5). <https://doi.org/10.1109/MNET.2019.8863716>
- H. L. Chan, Using radiofrequency identification (RFID) technologies to improve decision-making in apparel

- supply chains, Editor(s): Tsan-Ming Choi, In Woodhead Publishing Series in Textiles, Information Systems for the Fashion and Apparel Industry, Woodhead Publishing, 2016, Pages 41-62, ISBN 9780081005712, <https://doi.org/10.1016/B978-0-08-100571-2.00003-8>.
- Hasan, M. (2017). Wage Digitization in Readymade Garment (RMG) Sector in Bangladesh is Crucial for Women Empowerment, Social Compliance and Competitiveness. *Engineering International*, 5(1), 37-44. <https://doi.org/10.18034/ei.v5i1.1062>
- Hensellek, S. (2019). Digital Leadership. *Journal of Media Management and Entrepreneurship*, 2(1), 55-69. <https://doi.org/10.4018/jmme.2020010104>
- Jayathilake, H. D. (2019). *International Conference on Business Research IMPORTANCE OF LEADERSHIP TO SUCCESS OF DIGITAL WORKPLACE. 1975*(June 2019).
- Kaiser, M., (2018). Lessons for the present and possible future of Ready-made Garments industry in Bangladesh.
- Klus, M. F., & Müller, J. (2020). Identifying Leadership Skills Required in the Digital Age. *CESifo Working Papers*, 81(80), 1-47. Retrieved from <https://ssrn.com/abstract=3564861>
- Larson, L., & DeChurch, L. A. (2020). Leading teams in the digital age: Four perspectives on technology and what they mean for leading teams. *Leadership Quarterly*, 31(1), 101377. <https://doi.org/10.1016/j.leaqua.2019.101377>
- Lee, J. (2015). Smart Factory Systems. *Informatik-Spektrum*, 38(3), 230-235. <https://doi.org/10.1007/s00287-015-0891-z>
- Megersa, K., (2019). Structure of the global ready-made garment sector.
- Oberer, B., & Erkollar, A. (2018). Leadership 4.0: Digital Leaders in the Age of Industry 4.0. *International Journal of Organizational Leadership*, 7(4), 404-412. <https://doi.org/10.33844/ijol.2018.60332>
- Popkova, E. G. (2019). Preconditions of formation and development of industry 4.0 in the conditions of knowledge economy. In *Studies in Systems, Decision and Control* (Vol. 169). https://doi.org/10.1007/978-3-319-94310-7_6
- Rajkishore, N., & Rajiv, P. (2017). Introduction to automation in garment manufacturing, Editor(s): Rajkishore Nayak, Rajiv Padhye, Automation in Garment Manufacturing, Woodhead Publishing, 2018, Pages 1-27, ISBN 9780081012116, <https://doi.org/10.1016/B978-0-08-101211-6.00001-X>. Roubini ThoughtLab. (2017). *Wealth and Asset Management 2022: The Path to Digital Leadership*. <https://doi.org/10.1016/B978-0-08-101211-6.00001-X>
- Sainger, G. (2018). Leadership in Digital Age: A Study on the Role of Leader in this Era of Digital Transformation. *International Journal on Leadership*, 6(1), 1-6.
- Sawy, O. A. E., Amsinck, H., Kræmmergaard, P., & Vinther, A. L. (2016). How LEGO built the foundations and enterprise capabilities for digital leadership. *MIS Quarterly Executive*, 15(2), 141-166. <https://doi.org/10.4324/9780429286797-8>
- Skilton, M., & Hovsepian, F. (2017). The 4th industrial revolution: Responding to the impact of artificial intelligence on business. In *The 4th Industrial Revolution: Responding to the Impact of Artificial Intelligence on Business*. <https://doi.org/10.1007/978-3-319-62479-2>
- Wrede, M., Velamuri, V. K., & Dauth, T. (2020). Top managers in the digital age: Exploring the role and practices of top managers in firms' digital transformation. *Managerial and Decision Economics*, 41(8), 1549-1567. <https://doi.org/10.1002/mde.3202>
- Zeike, S., Bradbury, K., Lindert, L., & Pfaff, H. (2019). Digital leadership skills and associations with psychological well-being. *International Journal of Environmental Research and Public Health*, 16(14), 1-12. <https://doi.org/10.3390/ijerph16142628>
- <https://www.thedailystar.net/supplements/29th-anniversary-supplements/reimagining-growth-the-digital-age/new-s/bangladesh-rmg-and-the-brave-new-digital-world-1868833>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Reviewer Acknowledgements

International Business Research wishes to acknowledge the following individuals for their assistance with peer review of manuscripts for this issue. Their help and contributions in maintaining the quality of the journal are greatly appreciated.

International Business Research is recruiting reviewers for the journal. If you are interested in becoming a reviewer, we welcome you to join us. Please contact us for the application form at: ibr@ccsenet.org

Reviewers for Volume 14, Number 2

Al-Amin Md., Noakhali Science and Technology University, Bangladesh

Alireza Athari, Eastern Mediterranean University, Iran

Anant Deshpande, SUNY Empire State College, USA

Anna Maria Calce, University of Cassino and Southern Lazio, Italy

Anna Paola Micheli, University of Cassino and Southern Lazio, Italy

Boguslaw Bembenek, Rzeszow University of Technology, Poland

Brahim Chekima, Universiti Malaysia Sabah, Malaysia

Carla Del Gesso, University of Molise, Italy

Cheng Jing, eBay, Inc. / University of Rochester, USA

Chokri Kooli, International Center for Basic Research applied, Paris, Canada

Dionito F. Mangao, Cavite State University – Naic Campus, Philippines

Florin Ionita, The Bucharest Academy of Economic Studies, Romania

Hanna Trojanowska, Warsaw University of Technology, Poland

Ivano De Turi, LUM Jean Monnet University, Italy

Joseph Lok-Man Lee, The Hong Kong Polytechnic University, Hong Kong

Ladislav Mura, University of Ss. Cyril and Methodius in Trnava, Slovakia

Marcelino José Jorge, Evandro Chagas Clinical Research Institute of Oswaldo Cruz Foundation, Brazil

Maryam Ebrahimi, Azad University, Iran

Matteo Palmaccio, University of Cassino and Southern Lazio, Italy

Muath Eleswed, American University of Kuwait, USA

Shun Mun Helen Wong, The Hong Kong Polytechnic University, Hong Kong

Sreekumar Menon, R3Synergy Inc., Calgary, Canada

➤ CALL FOR MANUSCRIPTS

International Business Research (IBR) is a peer-reviewed, open access journal, published by Canadian Center of Science and Education. It publishes original research and applied articles in all areas of business, marketing, management, finance, economics, accounting. Authors are encouraged to submit complete unpublished and original works, which are not under review in any other journals. We are seeking submissions for forthcoming issues. All manuscripts should be written in English. Manuscripts from 3000–8000 words in length are preferred. All manuscripts should be prepared in MS-Word format, and submitted online, or sent to: ibr@ccsenet.org

Paper Selection and Publishing Process

- a) Submission acknowledgement. If you submit manuscript online, you will receive a submission acknowledgement letter sent by the online system automatically. For email submission, the editor or editorial assistant sends an e-mail of confirmation to the submission's author within one to three working days. If you fail to receive this confirmation, please check your bulk email box or contact the editorial assistant.
- b) Basic review. The editor or editorial assistant determines whether the manuscript fits the journal's focus and scope. And then check the similarity rate (CrossCheck, powered by iThenticate). Any manuscripts out of the journal's scope or containing plagiarism, including self-plagiarism are rejected.
- c) Peer Review. We use a double-blind system for peer review; both reviewers' and authors' identities remain anonymous. The submitted manuscript will be reviewed by at least two experts: one editorial staff member as well as one to three external reviewers. The review process may take four to ten weeks.
- d) Make the decision. The decision to accept or reject an article is based on the suggestions of reviewers. If differences of opinion occur between reviewers, the editor-in-chief will weigh all comments and arrive at a balanced decision based on all comments, or a second round of peer review may be initiated.
- e) Notification of the result of review. The result of review will be sent to the corresponding author and forwarded to other authors and reviewers.
- f) Pay the article processing charge. If the submission is accepted, the authors revise paper and pay the article processing charge (formatting and hosting).
- g) E-journal is available. E-journal in PDF is available on the journal's webpage, free of charge for download. If you need the printed journals by post, please order at <http://www.ccsenet.org/journal/index.php/ibr/store/hardCopies>.
- h) Publication notice. The authors and readers will be notified and invited to visit our website for the newly published articles.

More Information

E-mail: ibr@ccsenet.org

Website: <http://ibr.ccsenet.org>

Paper Submission Guide: <http://ibr-author.ccsenet.org>

Recruitment for Reviewers: <http://www.ccsenet.org/journal/index.php/ibr/editor/recruitment>

➤ JOURNAL STORE

To order back issues, please contact the editorial assistant and ask about the availability of journals. You may pay by credit card, PayPal, and bank transfer. If you have any questions regarding payment, please do not hesitate to contact the editorial assistant.

Price: \$40.00 USD/copy Shipping fee: \$20.00 USD/copy

ABOUT CCSE

The Canadian Center of Science and Education (CCSE) is a private for-profit organization delivering support and services to educators and researchers in Canada and around the world.

The Canadian Center of Science and Education was established in 2006. In partnership with research institutions, community organizations, enterprises, and foundations, CCSE provides a variety of programs to support and promote education and research development, including educational programs for students, financial support for researchers, international education projects, and scientific publications.

CCSE publishes scholarly journals in a wide range of academic fields, including the social sciences, the humanities, the natural sciences, the biological and medical sciences, education, economics, and management. These journals deliver original, peer-reviewed research from international scholars to a worldwide audience. All our journals are available in electronic form in conjunction with their print editions. All journals are available for free download online.

Mission

To work for future generations

Values

Scientific integrity and excellence

Respect and equity in the workplace

CONTACT US

1595 Sixteenth Ave, Suite 301
Richmond Hill, Ontario, L4B 3N9
Canada
Tel: 1-416-642-2606
Fax: 1-416-642-2608
E-mail: info@ccsenet.org
Website: www.ccsenet.org

The journal is peer-reviewed
The journal is open-access to the full text
The journal is included in:

Academic Journals Database
COPAC
EBSCOhost
EconBiz
ECONIS
EconPapers
Elektronische Zeitschriftenbibliothek (EZB)
Excellence in Research for Australia (ERA)
Genamics JournalSeek
Google Scholar
Harvard Library
IBZ Online
IDEAS
Infotrieve
LOCKSS
MIAR
Norwegian Centre for Research Data (NSD)
Open J-Gate
Publons
Qualis/CAPES
RePEc
ResearchGate
ROAD
SHERPA/RoMEO
Technische Informationsbibliothek (TIB)
UC Riverside Library
Ulrich's
Universal Digital Library
ZBW-German National Library of Economics
Zeitschriften daten bank (ZDB)

International Business Research Monthly

Publisher Canadian Center of Science and Education
Address 1595 Sixteenth Ave, Suite 301, Richmond Hill, Ontario, L4B 3N9, Canada
Telephone 1-416-642-2606
Fax 1-416-642-2608
E-mail ibr@ccsenet.org
Website <http://ibr.ccsenet.org>

