



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

International Business Research

Vol. 12, No. 12, December 2019

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
JEL; 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 publication fees 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
Wing-Keung Wong, Asia University, Taiwan, Province of China

EDITORIAL ASSISTANT

Kevin Duran, Canadian Center of Science and Education, Canada

EDITORIAL BOARD MEMBERS

Abbi M. Kedir, UK	Claudia Isac, Romania, Malaysia
Abderrazek Hassen Elkhaldi, Tunisia	Cristian Marian Barbu, Romania
Abedalqader Rababah, Oman	Cristian Rabanal, Argentina
Andrei Buiga, Romania	Daniel Cash, United Kingdom
Ajit Kumar Kar, India	Dionito F. Mangao, Philippines
Alina Badulescu, Romania	Domenico Nicolò, Italy
Alina Cristina Nuta, Romania	Duminda Kuruppuarachchi, New Zealand
Alireza Athari, Iran	Essia Ries Ahmed, Malaysia
Anca Gabriela Turtureanu, Romania	Eva Mira Bolfiková, Slovakia
Andrea Carosi, Italy	Ewa Ziemia, Poland
Anna Paola Micheli, Italy	Farouq Altahtamouni, Jordan
Antônio André Cunha Callado, Brazil	Fawzieh Mohammed Masad, Jordan
Arifur Rahman, Bangladesh	Federica Caboni, Italy
Ashford C Chea, USA	Federica De Santis, Italy
Aurelija Burinskiene, Lithuania	Federico de Andreis, Italy
Ayoub Sidahmed, Sudan	Fevzi Esen, Turkey
Bazeet Olayemi Badru, Nigeria	Filomena Izzo, Italy
Behrooz Gharleghi, Malaysia	Florin Ionita, Romania
Benjamin James Inyang, Nigeria	Foued Hamouda, Tunisia
Brahim Chekima, Malaysia	Francesco Scalera, Italy
Bruno Ferreira Frascaroli, Brazil	Gengswari Krishnapillai, Malaysia
Bruno Marsigalia, Italy	Georges Samara, Lebanon
Chemah Tamby Chik, Malaysia	Gianluca Ginesti, Italy
Chokri Kooli, Canada	Gilberto Marquez-Illescas, USA
Christopher Alozie, Nigeria	Giuseppe Russo, Italy
Christos Chalyvidis, Greece	Graziella Sicoli, Italy

- Grzegorz Strupczewski, Poland
Grzegorz Zasuwa, Poland
Guy Baroaks, Israel
Haldun Şecaattin Çetinarslan, Turkey
Hanna Trojanowska, Poland
Henrique Fátima Boyol Ngan, Macao
Hejun Zhuang, Canada
Herald Ivan Monis, India
Hsiao-Ching Kuo, USA
Hung-Che Wu, China
Ionela-Corina Chersan, Romania
Isam Saleh, Jordan
Iwona Gorzen-Mitka, Poland
Ivana Tomic, Serbia
Janusz Wielki, Poland
Jerome Kueh, Malaysia
Jing Cheng, USA
Joanna Katarzyna Blach, Poland
Joseph Lok-Man Lee, Hong Kong
Keshmeer Makun, Fiji
Khaled Mokni, Tunisia
Ladislav Mura, Slovakia
Lee Yok Yong, Malaysia
Leo Franklin, India
Leow Hon Wei, Malaysia
Luisa Helena Pinto, Portugal
Mahdi Shadkam, Malaysia
Manuela Rozalia Gabor, Romania
Marcelino José Jorge, Brazil
Marcos Ferasso, Brazil
Marco Valeri, Italy
Maria do Céu Gaspar Alves, Portugal
Marta Joanna Ziółkowska, Poland
Maria Madela Abrudan, Romania
Maria Teresa Bianchi, Italy
Maryam Ebrahimi, Iran
Michele Rubino, Italy
Mihaela Simionescu (Bratu), Romania
Miriam Jankalova, Slovakia
Miroslav Iordanov Mateev, UAE
Mithat Turhan, Turkey
Modar Abdullatif, Jordan
Mohamed A. R. Salih, Saudi Arabia
Mohsen M. Khiabani, Malaysia
Mongi Arfaoui, Tunisia
Mortaza OJAGHLOU, Turkey
Muath Eleswed, USA
Munther Barakat Alnimer, Jordan
Murat Akin, Turkey
Nadia Oliva, Italy
Na Wen, USA
Nermine Magdy Atteya, USA
Nicoleta Barbuta-Misu, Romania
Nirosh Kuruppu, Oman
Nitin Simha Vihari, India
Odemir Vieira Baêta, Brazil
Odor Hillary, Nigeria
Oluyomi Abayomi Osobajo, UK
Ouedraogo Sayouba, Burkina Faso
Ozgur Demirtas, Turkey
Pascal Stiefenhofer, United Kingdom
Philippe Van Cauwenberge, Belgium
Prosper Senyo Koto, Canada
Radoslav Jankal, Slovakia
Ran Zhao, USA
Raphaël Dornier, France
Razana Juhaida Johari, Malaysia
Riaz Ahsan, Pakistan
Riccardo Cimini, Italy
Roberto C. da R. Miranda, Brazil
Romana Korez Vide, Slovenia
Rossana Piccolo, Italy
Roxanne Helm Stevens, USA
Salah Eddine Taha, Morocco
Sara Saggese, Italy
Sam C Okoroafo, USA
Sang-Bing Tsai, China
Seetha Nesaratnam, Malaysia
Serhii Kozlovskiy, Ukraine
Shame Mukoka, Zimbabwe
Shun Mun Helen Wong, Hong Kong
Silvia Ferramosca, Italy
Silvia Vernizzi, Italy
Slavoljub M. Vujović, Serbia
Stephen Donald Strombeck, USA
Stoyan Neychev, Bulgaria

Sumathisri Bhoopalan, India

Tatiana Marceda Bach, Brazil

Tariq Tawfeeq Yousif Alabdullah, Iraq

Valeria Stefanelli, Italy

Valerija Botric, Croatia

Vassili Joannides, Australia

Velia Gabriella Cenciarelli, Italy

Wanmo Koo, USA

Wasilu Suleiman, Nigeria

Wejdene Yangui, Tunisia

Yan Lu, USA

Yasmin Tahira, UAE

Zi-Yi Guo, USA

CONTENTS

Analysis of Economy and Trade among China, India, and Russia under the Belt and Road Initiative <i>Jui-Lung Chen, Hsiung-Shen Jung</i>	1
The Effect of Using Six Sigma Approach in Improving the Quality of Health Services in the Jordanian Ministry of Health <i>Ramzi Mubarak Al-tarawneh</i>	11
The Effect of Workplace Spirituality on Innovative Work Behavior <i>Vimansha R. Ranasinghe, Samantha M. Samarasinghe</i>	29
Tax Administration and Entrepreneurial Performance: A Study of SMEs in Uganda <i>Ismail Kintu, Faisal Buyinza, Yusuf Kiwala</i>	39
Evaluating Anti-Graft Agencies Governance Practices in Nigeria <i>Uket E. Ewa, Adebisi. W. Adesola, Kechi Kankpang</i>	50
Analyzing the Role of Dynamic Capabilities in the Internationalization of Gradual Global SMEs <i>Andrea Moretta Tartaglione, Vincenzo Sanguigni, Ylenia Cavacece, Maria Fedele</i>	61
Growing Global Demand for Cash <i>Sayuri Shirai, Eric Alexander Sugandi</i>	74
Impact of the Development of ICT Infrastructure and Security on the Effectiveness of Accounting Information in the Jordanian Banking Sector <i>Reem Oqab Hussein Al- Khasawneh, Mohamed Mahmoud Mohamed bshayreh, Mohamed Ali Al-Oqool</i>	93
Gender Budgeting Implementation in Italian Regional Governments: Institutional Behavior for Gender Equality and Women's Empowerment <i>Carla Del Gesso</i>	110
Reviewer Acknowledgements for International Business Research, Vol. 12, No. 12, 2019 issue <i>Kevin Duran</i>	125

Analysis of Economy and Trade among China, India, and Russia under the Belt and Road Initiative

Jui-Lung Chen¹, Hsiung-Shen Jung²

¹ Department of Business Administration, National Chin-Yi University of Technology, Taiwan, R.O.C.

² Department of Applied Japanese, Aletheia University, Taiwan, R.O.C.

Correspondence: Jui-Lung Chen, Department of Business Administration, National Chin-Yi University of Technology, Taiwan.

Received: September 26, 2019

Accepted: November 6, 2019

Online Published: November 8, 2019

doi:10.5539/ibr.v12n12p1

URL: <https://doi.org/10.5539/ibr.v12n12p1>

Abstract

The Belt and Road Initiative advocated by China is expecting to assist in the infrastructure and financing of participating countries and promote free trade through cooperation with countries along the Belt and Road. China hopes to lead the regional economic integration process through investment-driven trade. Out of geopolitical considerations, Russia and India initially held a relatively negative or cautious attitude towards the Belt and Road Initiative. Therefore, Russia proposed the concept of the Eurasian Economic Union (EEU) in 2011 in order to unite the other independent ASEAN countries based on the customs alliance consisting of Russia, Belarus, and Kazakhstan, and thus create a supranational consortium, which in turn have the ability to compete and cooperate with the Belt and Road Initiative proposed by China. In 2014, India launched the Indian version of the Belt and Road Initiative, named Project Mausam, expecting to promote the integration of economic and trade exchanges around the Indian Ocean with India as the center. However, after recent strikes by the trade war, China actively seeks assistance from India and Russia in order to break through the US trade blockade. During the G20 summit held in Japan in June 2019, China, India, and Russia held a three-party talk. After the talk, the three countries issued a joint statement claiming that “they shall undertake more global responsibilities to protect the fundamental and long-term interests of the three countries themselves and the world”, which seems to have opened up opportunities for future cooperation among the three countries. Therefore, this paper explores the competitive and cooperative relationship among China, India, and Russia under the Belt and Road Initiative.

Keywords: Belt and Road Initiative, Eurasian economic union, project Mausam

1. Introduction

The Belt and Road Initiative is the response of China to its slowing economic growth in recent years. China expects to enhance its global economic and trade status and political influence through international economic cooperation. As the Belt and Road Initiative spreads across Europe, Asia, and Africa, China can integrate the economic interests of many countries along the strategic path and hopes to resolve the dilemmas of domestic excess capacity and fund idling. In particular, the Belt and Road Initiative can help China achieve the military purpose of expanding overseas military bases or deploying submarines in the Arctic Circle, which serves as an important strategy for economic, political, and military considerations. The promotion of the Belt and Road Initiative guided by the Belt and Road Initiative, and supplemented by the Asian Infrastructure Investment Bank (AIIB) and the Regional Comprehensive Economic Partnership (RCEP). As the policy will bring considerable economic benefits to the countries along the path if it is implemented smoothly, most countries show a welcome attitude. However, in the early stage, Russia located along the Belt and India located along the Road held a mixed attitude toward China’s promoting the Belt and Road Initiative, concerned while reserved. However, as recently hit by the trade war, China has actively sought assistance from India and Russia to break through the US trade blockade. China, India, and Russia held a three-party talk at the G20 summit in June 2019, which seems to have opened up opportunities for future cooperation among the three countries. If China hopes to cooperate with India and Russia, it must break away from its political considerations, connect with the countermeasures against Russia and India through economic means, and thus create a mutually beneficial environment.

Different from the previous “Western China Development” policy which aims to balance the domestic regional

economic development and improve the overall national strength, the Belt and Road Initiative involves the political and economic interests of many countries. The threat of rising China results in a sense of cautious fear to the United States and the world. Russia located to the north of China and India located to the south of China are both directly affected by the Belt and Road Initiative, and can directly affect the Belt and Road Initiative. Especially, under the great influence of Russia on the five Central Asian countries and the great influence of India on the Association of Southeast Asian Nations, the success of the Belt and Road Initiative in these two blocks is related to the westward expansion success of the Belt and Road Initiative. Therefore, China's relationship with Russia and India as well as the countries in the above two blocks is the key to the Belt and Road Initiative and also an observational focus of this study.

2. Literature Review

According to Li (2015), there have been various Silk Road development plans around the world. For example, the New Silk Road Initiative advocated by the US Government originated from the New Silk Road proposed by Professor Frederick Star, and was originally based on the concept of the "Greater Central Asia Plan" proposed by the United States; New Silk Road Initiative was a cross-regional economic plan formally proposed by former US Secretary of State Hillary Clinton in July 2011, and aimed to help Afghanistan integrate into the Central Asian region by rebuilding various infrastructures, and thus create an economic circle to connect the Central Asian region and the South Asian region centered on Afghanistan to contribute to realizing the strategic goals of southward energy transmission and northward commodity transportation. The "Asia-Europe Silk Road" of Japan aimed to connect Japan with Turkey to curb the development of China, but the Japanese version of the "New Silk Road" lacked a trade route between Asia and Europe; the "Eurasia Economy Union" proposed by Russia focused on the revival of Russia. Du and Ma (2015) pointed out that the strategic fulcrum of the Belt and Road Initiative is as follows: the South China Sea and the surrounding region is the strategic base of the Maritime Silk Road; Myanmar and Pakistan are the eastern and western anchors of the Maritime Silk Road; Central Asia and Russia are the commercial throats and bridges of the Land Silk Road. The Chinese version of the Silk Road Economic Belt is targeted at implementing the "two routes and one road" planning model, which refers to developing the "north route" based on the coordination of Uzbekistan, Kazakhstan, and Russia, and the "south route" based on the cooperation of Kyrgyzstan, Turkmenistan, and Iran. The north route focuses on the cooperation in traditional energy resources and new energy resources while the south route is supported by industries and emphasizes the infrastructure investment. As a result, the two routes make full use of their advantages and competitiveness. The other one road mainly focuses on the "energy channel", namely the Eurasia Energy Channel, which highlights the locational and capacity advantages of Central Asia, develops the cooperation of oil and gas resources, and gradually rises to a new industrial belt consisting of new energy resources and environmental cooperation (Li, 2015).

Russia is a transit country with great strategic value. Considering the continued turmoil in the Middle East and Transcaucasia, the transportation artery of the Belt and Road Initiative across Russia has been given a vital significance. Although Moscow is not a market target for the Belt and Road Initiative, the sanctions imposed by the United States and the European Union on Russia have made people re-recognize the importance of the Russian market: the consistently hostile economic policies of the European Union and the United States toward Russia have increased the risk of China being isolated by the US-led international economic system. China needs to cooperate with Russia while the sanctions of Western countries against Russia provide a broad market for Chinese commodities. On the one hand, the Silk Road Economic Belt is beneficial for resolving the difficulties which Russia faces in its Far East Development Plan. As nothing can replace pragmatism in Central Asia, Kazakhstan and Russia may seek to establish a balanced relationship with China and other participants in the region for the purpose of stability. Kazakhstan can benefit from the Belt and Road Initiative (Lu and Wang, 2016). Chen (2015) pointed out that India believes that accepting the Belt and Road Initiative is conducive to its economic construction. On the other hand, India believes that the Belt and Road Initiative promoted by China is an investment-driven regional engagement strategy: on the economic level, it can expand China's influence in the surrounding regions through investment; on the diplomatic level, it contributes to shaping China's positive image in the global community; on the security level, it is capable of partially offsetting the military pressure exerted by the Asia-Pacific Rebalancing Strategy launched by the Obama administration; on the strategic level, it can guarantee the safety of China's energy import channel. In addition, the unique mentality and pride of great power long held by India make it easy for India to take a zero-sum gaming perspective toward the Sino-Indian interaction. It believes that China's rising influence in the Indian Ocean region will directly lead to a decline in the leadership of India in the region. As pointed out by Indian scholars, India regards the 21st Century Maritime Silk Road as a symbol of Chinese nationalism. Moreover, India even launched the Project Mausam in June 2014

in order to counter the Belt and Road Initiative. On the Belt and Road Initiative International Cooperation Summit held in Beijing on May 14, 2017, India also protested against China's incorporating the China-Pakistan Economic Corridor resulting from the cooperation between China and Pakistan into the Belt and Road Initiative, and was absent as it planned to construct dams in the Kamil area at the center of India-Pakistan sovereignty dispute.

According to World People News (2017, May 18), India believes that China is trying to indirectly dominate the foreign policies of the related countries through economic assistance, infringe on their national sovereignty and territorial integrity. As the China-Pakistan Economic Corridor resulting from the cooperation between China and Pakistan passes through the disputed area between India and Pakistan, it has decided to boycott the corridor and promote the "free corridor" with Japan. In addition, it plans to invest in the development of ports in Africa, Sri Lanka, Iran and Southeast Asia in order to counter the Belt and Road Initiative, and balance China's influence in relevant regions. Chen (2013) believed that factors affecting the foreign policies of India can be roughly categorized into domestic and international factors. For India, the internal factors include territorial disputes: (Southern Tibet, small undemarcated areas in the middle, Aksai Chin Saiqin area), historical issues (the defeat of India in the Sino-Indian border war in 1962, the resulting feeling of stigma and betrayal by China has continued to this day.), trade imbalances (China enjoys huge trade surplus); the external factors involve the geopolitical strategies of India and the relationship of China and India with other small South Asian countries. For example, China assisted Pakistan in the construction of the Gwadar Port project, invested in the Chittagong Deepwater Port, the construction of projects in Bangladesh, and the reconstruction of the Hambantota Port, Sri Lanka, etc., as well as leased the offshore islands of Myanmar as a radar station and military base. Meng (2017) proposed that the four long-lasting mentalities of India have largely constituted the basis of India's national policies, which will determine the success or failure of India's dream of becoming a great power. The four mentalities include: (1) The proud posture of a great power that cannot be put down; (2) the complex emotion toward China that cannot be understood; (3) the dissatisfied psychology that cannot be faded; (4) the political correctness that cannot be driven away. Furthermore, he analyzed the motivations for India's provocation in Dong Lang Village as follows: (1) Intend to transfer the focus on domestic conflicts, enhance the national spirits, and unite the people; (2) attempt to strengthen or maintain its control and influence on neighboring countries in South Asia; (3) try to gain international support and compassion; (4) plan to create trouble for China, and increase its bargaining chips; (5) seek military adventure and strategic gambling.

3. Research and Analysis

As the success of reform and opening-up has laid the foundation for the rise of China, the Belt and Road Initiative is another important policy that China extends to the west. The Belt and Road Initiative is proposed to provide economic assistance for the small and medium-sized countries along the path. Most of these countries are optimistic about the Belt and Road Initiative, especially the five Central Asian countries along the Belt and the Association of Southeast Asian Nations along the Road. However, when it comes to Russia and India which hold a mixed attitude toward the Belt and Road Initiative, China may need to seek a solution that benefits both of them. First, this study analyzes the relationship between China, India, and Russia from a historical perspective to investigate how Russia and India respond to the Belt and Road Initiative.

3.1 Impact of the Belt and Road Initiative on the Sino-Russian Political and Economic Relationship

Sino-Russian relationship is sometimes close and sometimes tense just as the relationship between lip and mouth. Initially, during the one-sided period, the two countries were closely related and mutually dependent; the Soviet Union provided a large amount of economic assistance to China while China was politically standing along the Soviet Union to confront the United States. At that time, the Sino-Soviet relationship was in an excellent state. After the implementation of the Great Leap Forward, conflict emerged between the two countries, which changed the relationship between the two countries. From the political criticism of the Sino-Soviet debate into the Zhenbao Island Incident, the relationship between the two countries was at the tensest stage. However, as the Chinese proverb goes, "If the lips are gone, the teeth will be cold", the two countries must maintain moderate cooperation during the Cold War to fight against the third party. It was not until the Gorbachev visit to China in 1989 that the tension between the two countries was gradually resolved. But until now, China and Russia have still kept a rather subtle relationship. Whether the Sino-Soviet relationship is hostile or intimate after the economic assistance, political criticism, and military conflict is often based on the international situation or the interests of the two countries, which can be seen from Russia's seemingly agreement but also opposition toward the Belt and Road Initiative. However, Jia and Chen (2015) believed that Russia is a major energy and military power, while China rises from industrial production, and thus China and Russia share high economic complementarities. The oil and gas resources of Russia are essential for China to safeguard its energy security. In

addition, Russia is also the main external supplier of many advanced armaments and technologies that are needed for China to enhance its national defense capabilities. For Russia, China is one of the important sources of industrial manufactured commodities. But, in response to the Belt and Road Initiative, Russia also establishes its own economy version. Specifically, the Presidents of Russia, Belarus, and Kazakhstan signed the Eurasian Economic Union Treaty in May 2014. Later, the Eurasian Economic Union was officially launched in January 2015. Afterward, Armenia and Kyrgyzstan also joined in the Eurasian Economic Union. While promoting Eurasian integration, Russia faces many external challenges from the magnetic attraction of the European Union. In particular, the launch of the Oriental Partnership Program proposed by the European Union makes the European Union more attractive. In this circumstance, some countries demonstrate a high willingness to integrate into the European Union, rather than join in the Russian-led Eurasian Economic Union. Another external challenge that Russia faces is the so-called Belt and Road Initiative proposed by China, especially the Silk Road Economic Belt Program which was advocated by the Chinese President Xi Jinping in 2013 when visiting Kazakhstan (Wei, 2017).

The first reaction to the proposal of the Belt and Road Initiative was that China intends to make an offensive westward advance from the eastern direction of the Eurasian continent to the former Soviet Union region through another integration approach that bypasses Russia, especially to expand its influence in the Central Asian region. However, on May 8, 2015, China and Russia issued the Joint Agreement between the People's Republic of China and the Russian Federation on the Construction of the Silk Road Economic Belt and the Eurasian Economic Union in Moscow, indicating that the connection process is on the right track. The two countries initiate the dialogue mechanism connecting the Silk Road Economic Belt with the Eurasian Economic Union in order to realize the economic integration of Europe and Asia, and promote the discussion among experts and scholars on the development of a common economic space (Chen, 2015) Hu et al. (2015) presented that only Russia has the conditions to jointly build the Belt and Road Initiative and is currently the best partner. As a natural opponent, the United States will spare no effort to obstruct the construction of the Belt and Road Initiative in order to maintain its global dominance. Although in the middle position, India is slightly tilted towards the United States in the short term. However, India needs to develop itself, and thus will act according to the cooperative economic interests and the communication results of the two countries. Due to the dispute in the South China Sea, the Philippines and Vietnam will stand with the United States in the short term and have a negligible promotional effect on the Belt and Road Initiative. In addition, the countries in Africa, Europe, and the Middle East with no territorial disputes will maintain a neutral status and actively participate in both the Belt and Road Initiative and the US-led economic cooperative organization, which makes them a solid force for the joint construction of the Belt and Road Initiative. Since the disintegration of the Soviet Union, Russia has established several economies to maintain its influence. The aforementioned Eurasian Economic Union, which was launched in 2015, is apparently in response to the Belt and Road Initiative. Chi and Ji (2015) pointed out that 1) the differences between the two include: (1) Regional development and cooperation models; (2) beneficiary subjects; (3) promotion methods, and that 2) the commonalities between the two include: (1) geographical similarity; (2) consistency of economic objectives; (3) coincidence of common tasks. However, Wan (2016) stated that the development of the Eurasian Economic Union mainly faces both internal and external issues. Specifically, 1) the internal issues of the Eurasian Economic Union include: (1) The establishment of a redistribution mechanism in the process of building a unified market; (2) the excessive transaction costs resulting from the non-tariff barriers; (3) the poor coordination of macroeconomic policies; (4) the difficulties in the free flow of labor force within the Eurasian Economic Union; (5) adverse impact from the accession of Kazakhstan to the WTO on the operation of the Eurasian Economic Union. 2) The external economic and trade issues of the Eurasian Economic Union include: (1) economic and trade relationships with Ukraine; (2) economic and trade cooperation with China.

Yang (2017) pointed out that Russia believes that its top priority is to strengthen the construction of the Eurasian Economic Union in order to create conditions for equal cooperation with the European Union. However, Russia's plan is unacceptable to the United States and the European Union for the reason that the United States and the European Union are very clear that this will increase the chances and bargaining chips of Russia during the negotiations. They do not recognize or accept the Eurasian Economic Union, and do not allow Russia to hinder the development of relationships between the European Union and the countries within the former Soviet Union. In their eyes, Greater Europe should not result from the merger of two mechanisms, but from the eastward expansion of the European Union. Russia should carry out various reforms as required by the United States and the European Union. Only under acceptable conditions will the European Union absorb Russia, making it a part of Greater Europe. As the two sides seriously opposed, their relationship turns cold. The European Union has implemented special policies in the energy sector starting from the implementation of the third energy package in 2011, which imposes severe restrictions on Russia. In response, Russia has set up

protective trade barriers targeting European products. Since the Ukrainian crisis in 2014, Russia has suffered overwhelming sanctions and isolation from the United States and the European Union, which greatly pushed Russia to officially shift its national strategic focus from Greater Europe to Greater Eurasia. As a result, Russia, which is blocked in its westward expansion, has seriously considered the possibility of eastward development. Zhan (2017) claimed that the difference between the Belt and Road Initiative and the Eurasian Economic Union is that they are not fundamentally opposite, but compatible and complementary. Although the regions involved in the Belt and Road Initiative and the Eurasian Economic Union are geographically overlapping, they can develop in harmony. Therefore, it is possible to connect the Belt and Road Initiative with the Eurasian Economic Union. At the end of the 1980s, the comprehensive disintegration of the Soviet Union, and the reform and opening up of China have led to different fates of the two countries. The former has been caught in economic recession due to political shrinkage, while the latter has risen magnificently due to its prosperous economic development. Therefore, the fluctuating Sino-Russian relationship has finally calmed down. As the proposal of the Eurasia Economic Union shows that Russia has the will to revitalize its national economy, how to connect the Belt and Road Initiative with the Eurasian Economic Union has become the research direction of many scholars.

3.2 Impact of the Belt and Road Initiative on the Sino-Indian Political and Economic Relationship

Although the Cold War situation was formed after World War II, China and India were on their respective sides at that time, maintaining confrontation only in form. At the end of 1953, when Zhou Enlai met with the Indian government delegation, he first proposed the five principles of peaceful coexistence, including “mutual respect for territorial integrity and sovereignty, mutual non-aggression, mutual non-interference in each other’s internal affairs, equality and mutual benefit, and peaceful coexistence” (Men, 2017). However, after the Tibetan religious leader Dalai Lama escaped to India in 1959 and was granted asylum by the Indian government, the relationship between two countries began to deteriorate. On one hand, China accused India of attempting to foster the Tibetan separatist forces and then cooperate with the Western world to contain China; on the other hand, India identified China’s entry into Tibet as a major threat to its national security (Chen, 2009). As early as the 1990s, India launched the Act East Policy, which aimed to rapidly expand the diplomatic target of India from the Indian Ocean to the Pacific Ocean and extend its policy objectives from Southeast Asia to East Asia. In the second half of 2010, when Sino-Japanese relationships were tense due to the collision on the Diaoyu Islands, India and Japan became closer and strengthened their cooperation in the fields of politics, economy and maritime security. Both sides have an urgent desire to check and balance China and expand their geopolitical and geoeconomic influence relying on the power of the other side. They are committed to deepening their cooperation in the security and economic fields. In terms of national defense and security, China has been a long-term concern for India and Japan, which are highly concerned about the military strength of China. Regarding politics, the common political requirements of India and Japan are to become permanent members of the UN Security Council. In economic terms, India and Japan have greater appeal to each other, which demonstrates great potential for cooperation (Wei, 2013).

Lou and Zhang (2010) asserted that India is stuck into a dual mentality of both inferiority and self-esteem facing the rise of China. The shadow of the 1962 border conflict, the pressure of China’s rapid economic development and the doubts about China’s cooperation with small-sized South Asian countries have made India look at China with distrust, concern and even fear. In the meanwhile, India believes that it will ascend from the South Asian leader to a great power in the world, and is proud of its ancient civilization and its status as the world’s largest democracy. After the Cold War, the disintegration of the Soviet Union and the external strategic adjustment of Russia, India lacks traditional allies or new partners in the world. Coupled with the domestic economic development dilemma, India started to adjust its foreign strategies in the face of a profound international transformation. The Ministry of Foreign Affairs of India first proposed the Act East Strategy in 1995, which marks the starting point of India’s Act East Strategy and serves as the focus of India’s Asia-Pacific strategic adjustment (Wu, 2015). Wu (2015) pointed out that the joint statement issued by the United States and India in January 2015 stated that India and the United States will actively deepen the regional interactions within the framework of the Eastward Action Policy and the Re-balancing Strategy under the guidance of the US-India Joint Strategic Vision in the Asia-Pacific and Indian Ocean Region. Besides, their bilateral relationships have also been upgraded to “global strategic partnerships.” Yang (2018) believed that after the Trump government took office, although it raised certain objections to some of the Asia-Pacific Rebalancing Strategy initiated by the Barack Obama administration, and no longer publicly addressed this strategy, the core of this strategy has been retained and renamed as the new Indo-Pacific Strategy. After replacing the Rebalancing Strategy, the Indo-Pacific Strategy has gradually constituted the core of the Asia-Pacific strategy upheld by the Trump administration.

Zhang and Li (2016) presented that perhaps there are three following reasons which explain India's doubts toward the Belt and Road Initiative proposed by China. First, objectively, if implemented smoothly, the Belt and Road Initiative will help China strengthen its economic and trade cooperation with the countries along the path, and further consolidate the bilateral relationships between China and the countries along the path. Second, subjectively, India has always considered that it enjoys natural geographical advantages in the regions surrounding the Indian Ocean and South Asia. It is not willing to tolerate the entry of outsiders, such as China, or follow the advance of China. Third, India may use this as a bargaining chip in order to request corresponding reward or greater profits from China. Regarding whether India is willing to participate in the Belt and Road Initiative, and strategically integrate with China, according to Ye (2016), although Project Mausam has a certain impact on China's 21st Century Maritime Silk Road, based on the national development strategic demands of both countries, the possibility of cooperation between China and India regarding the Project Mausam and the Maritime Silk Road cannot be ruled out. Ye (2016) stressed that regarding India's participation in the construction of the Belt and Road Initiative, China must seek truth from facts, considering the possible benefits from India's participation and recognizing India's suspicious and speculative mentality on this issue.

According to the literature review of Sun (2014), some foreign scholars proposed that China integrates its military bases with the military presences in Thailand (Songkhla), Myanmar (Cocos Islands and Sittwe Port), Pakistan (Gwadar Port), Bangladesh (Chittagong), Sri Lanka (Hambantota Port), Maldives (Gan Islands), Seychelles (Mahe Island) and Sudan (Port Sudan), thus strategically forming a "pearl chain". In particular, Myanmar plans to lease the Cocos Islands to China as its naval base, which will help China to build a "pearl chain" from the South China Sea to the Middle East through the Indian Ocean. The terminal of this "pearl chain" is the African continent. These scholars believed that the proposal of the 21st Century Maritime Silk Road by China in October 2013 actually serves as a cover for the "pearl chain" strategy. Du and Ma (2015) pointed out that the strategic fulcrum of the Belt and Road Initiative is mostly countries that are relatively friendly to China, such as Pakistan. Therefore, China seems to deliberately rule out India due to its own political considerations. As Southeast Asia is the only way to westward expansion, promoting the implementation of the Road and striving for support from countries along the path is naturally a subject that China must work on. However, in India's Act East Policy, Southeast Asia also occupies a very significant position. India has always regarded ASEAN countries as a breakthrough in its entry into the Asia-Pacific region. On the political level, both India and ASEAN regard each other as an important power which they can rely on. In economic terms, India regards Southeast Asia as an indispensable external environment for its own economic development. Regarding security, India's military cooperation with ASEAN has expanded from the initial military exchanges to comprehensive defense cooperation, indicating that the level of cooperation has been upgraded. (Zhang and Chiou, 2012). Lin (2016) pointed out that the power vacuum left by the US-Soviet withdrawal from Southeast Asia has resulted in uncertainty in regional security, while the rise of China has become a potential threat. China's strong territorial proposition in the South China Sea in 1992 triggered regional tension, making the South China Sea one of the conflict regions in the Asia-Pacific region. India has no territorial disputes with Southeast Asia, but is also cautious about China. Therefore, ASEAN has sought to establish close relationships with India. The re-appearance of India is consistent with ASEAN's principle of seeking a balance of great powers, improving maritime security and strengthening the Asia-Pacific multilateral security mechanism (Lin, 2016). In addition, Zhu (2015) presented that India's diplomatic policy toward China faces the following problems: First, the strategic dilemma in which India unites with the United States to contain China, and adheres to the non-alliance diplomacy. Second, the cooperation dilemma of China Threat and the development of economic relationships. Third, the security dilemma from the joint construction of the Belt and Road Initiative and the increase of national security threats. In other words, although the two policies proposed by China and India are considered to be mutually beneficial on the economic level, they are conflicted on the political and military levels. Under tense relationships and conflicts of interests between the two countries, it is difficult to integrate the two policies, making the ideal of Chindia even more out of reach.

3.3 Trilateral Political and Economic Relationships Among China, India, and Russia

Fang (2005) investigated the trilateral relationships among China, India, and Russia from the perspective of strategic triangle, and pointed out that the India-Russian relationship is more stable than the Sino-Russian relationship and the Sino-Indian relationship, and that the development of Sino-Indian relationship is far worse than the India-Russian relationship and the Sino-Russian relationship. In other words, the trilateral relationships among China, India, and Russia are like an irregular triangle. As Russia maintains good relationships with China and India, it actively promotes the normalization of the Sino-Indian relationship in order to catalyze the China-India-Russia Strategic Triangle. However, once the three countries are allied, they will face great risks

and costs if they confronting the United States directly. At present, China, India, and Russia still hope to maintain normal relationships with the United States, and thus will not form a formal group to confront the United States openly and directly. However, the desire of the three countries for greater international influence in the new international order will not suddenly disappear. Therefore, the three countries have not yet ruled out the opportunities to deepen trilateral cooperation in order to defend their common interests (Fang, 2005). Tu (2017) considered that due to the complexity and variability of the strategic triangle, one important aspect of China's strategic planning involves the management of the relationships among the three countries. First, the institutional management of the triangular relationships among China, India, and Russia should be further strengthened. Second, the improvement of the political mutual trust is the basis of the triangular relationships among China, India, and Russia. Furthermore, dealing with the US factor is a challenge for China, India, and Russia. If the China-India-Russia Strategic Triangle is established, it may indeed form an opposition to the United States as described by Fang (2005). However, for China which is fully developing its economy, unreasonably raising the tensions between China and the United States will only affect its economic development. However, as mentioned above, considering the importance of Russia and India to the Belt and Road Initiative, even if the strategic triangle cannot be formed, it is necessary for China to deal with the US factor, strengthen the political mutual trust among China, India, and Russia, and maintain good relationships with Russia along the Belt and India along the Road as mentioned by Tu (2017).

Chen and Feng (2016) summarized the favorable and unfavorable conditions affecting the development of the trilateral relationships among China, India, and Russia. The favorable conditions include: First, the reform and power transfer of the current international political system are generally beneficial to the expansion and mechanism construction of the trilateral relationships. The macroscopic transfer of international power from west to east forms a macroscopic strategic foundation for the development of trilateral relationships among China, India, and Russia. Second, as the reorganization of power in the Eurasian region is gradually accelerating, urgent international governance needs have arisen from the common surrounding regions of China, India, and Russia. The reorganization of the power structure in Central Asia and South Asia and the fading of the US dominance provide a valuable strategic space for the three countries to expand their influence in the middle of the Eurasian continent, and also requires the strengthening of the strategic communication and policy coordination among the three sides. Third, the changes in the current international situation are conducive to enhancing the cooperation willingness of the three countries. The Ukrainian crisis, the conflict between the Western countries and Russia as well as the sanctions against Russia have forced Russia to shift its diplomatic focus to the East to a certain extent and seek new economic and political cooperation space in the Asia-Pacific region. While promoting the Act East Policy, the Modi government also actively consolidates its bilateral relationships with Russia, China, and other Eurasian countries, and becomes an official member of the SCO. The unfavorable conditions include: First, from the perspective of political systems, the internal differences of the three countries determine that the development of trilateral relationships demonstrates significant exogenous-driven characteristics. Specifically, the mutual strategic demand far exceeds the realistic cooperation foundation, while the lack of endogenous motivation constrains the development of the trilateral cooperation mechanism. Second, from the perspective of national cognition, the three countries are also significantly different in their attitudes toward the development and mechanism construction of the trilateral relationships. Third, from the perspective of regional structure, many structural factors in the political field of the Asia-Pacific region will also directly affect the development of trilateral relationships. Fourth, from the perspective of specific operations, there are still many problems such as insufficient strategic mutual trust and poor cooperation foundation in non-political fields affecting the development and mechanism construction of the trilateral relationships.

The US factor affecting the China-India-Russia Strategic Triangle aforementioned by Tu (2017) can be analyzed from the statement of Zhang and Chiou (2012). Facing the rise of China and the changes in the Asia-Pacific order, the United States announces its return to the Southeast Asia in a high profile, and strengthens its cooperation with traditional allies, such as Japan, Korea, Australia and Philippines. In addition, it urges India to play a greater leading role in Asian affairs. Therefore, India will place more emphasis on strengthening its relationships with Asia-Pacific countries and expanding its influence in the Asia-Pacific region. Besides, Luo (2008) pointed out that in order to prevent China, the United States actively approaches India and attaches great importance to India's position and role in the US rebalancing strategy. Since the Cold War, in order to maintain its global hegemony, the United States has strengthened its bilateral alliance relationships with Japan, Korea, Australia and Philippines in the Asia-Pacific region while improving its relationships with India in order to curb the rise of China and Russia, and attempt to form a mutually balancing pattern among Japan, China, Russia, and India, thereby building a balanced US-led Asia-Pacific region and keeping this region under its control. However,

according to the literature review of Luo (2014), India and the United States are still only “partners” for now instead of allies. The two countries still face many difficulties in establishing future alliances. First, India has long pursued a non-alliance diplomatic policy, and practices have proved the non-alliance diplomatic policy has enabled India to have its bread buttered on both sides and win a broad diplomatic space for India. India will not easily abandon this diplomatic tradition through which it can gain both international reputation and real benefits. Second, if India is aligned with the United States, its strategic partnership with China is bound to disintegrate, which is unacceptable for India as China has an increasingly broad strategic and economic interest in the eyes of India. Third, although the United States and India are carrying out comprehensive cooperation, the two countries have discrepancies on issues such as nuclear non-proliferation, intellectual property rights, human rights, economic and trade cooperation. In particular, it is difficult to reconcile the conflict between the United States and India in the leadership of the Indian Ocean. In other words, if the relationships among China, India, and Russia are like an irregular triangle as described by Fang (2005), the relationships among China, India, Russia, and the United States are like an irregular quadrangle. This quadrangle not only symbolizes more complicated relationships but contain greater tensions and severer frictions. As the biggest variable in the quadrangle, if the United States approaches India to check and balance China facing the rise of China at present, in the face of future rise of India, the United States presumably will propose the India Threat Theory and approach one certain country to check and balance India. But in such circumstances, China must still balance these countries, actively promote mutual trust and benefit, and seek common ground while reserving differences. Only when the four sides can obtain benefits simultaneously will the Belt and Road Initiative be smoothly implemented without being hindered by the United States, Russia, and India.

4. Results and Discussion

To sum up, the connection with Russia and India is mutually beneficial in economic terms. However, in political and military terms, Russia and India have doubts and are not actively involved. In particular, out of political and military considerations, India would rather sacrifice its own economic interests than cooperate with China. If all the great powers only consider their own interests, they will not support or even obstruct the Belt and Road Initiative. On one hand, under the banner of Asia-Pacific Rebalancing, the United States which employs political power in the east to instigate Japan and other Asian allies to check and balance the Belt and Road Initiative is certainly the biggest obstacle. On the other hand, the two countries close to the north and south borders of China can affect or hinder the smooth implementation of the Belt and Road Initiative in the most direct manner. The Eurasian Economic Union proposed by Russia and the Project Mausam launched by India are clearly targeted at the Belt and Road Initiative. The Eurasian Economic Union led by Russia can help Russia maintain its leading position in the regional economy, and confront with the European Union. In addition, Russia can also maintain its political influence in Central Asia and then exert influence on the Belt and Road Initiative. For the consideration of economic interests, connecting the Eurasian Economic Union with the Belt and Road Initiative is beneficial for both China and Russia. In addition, the Project Mausam launched by India is only a product of India to counter the Belt and Road Initiative under the mentality of “great powers”. Based on the above analysis and the views of many scholars, if India can get rid of its mentality factor and rule out political considerations, actively participating in the Belt and Road Initiative or even connecting with the Project Mausam will yield the greatest economic benefits for both China and India on the economic level. Although Chen (2015) pointed out the possibility of connecting the Belt and Road Initiative with the Project Mausam and the Eurasian Economic Union, but due to the different considerations of the three countries, there are still many problems which cannot be solved. According to Hu et al. (2015), compared to India, Russia has a higher possibility for cooperation or connection. The greatest goodwill of India is that it does not obstruct the Belt and Road Initiative, not to mention cooperation or connection. Even in this circumstance, China must circumvent in the irregular triangle or the irregular quadrangle and try to maintain good relationships with each side. The initial start of the Belt and Road Initiative has met with the great pressure from the United States (east), Russia (north), and India (south). As China has recently been hit by the trade war, it has been actively looking for allies and seeking assistance from India and Russia in order to break through the US trade blockade. The three-party talk between China, India, and Russia at the G20 summit held in Japan in June 2019 seems to have opened up opportunities for future cooperation among the three countries. But overall, there is an extremely hard and long way to go for this key westward development policy of China.

References

- Chen, D., & Feng, S. (2016). RIC Cooperation in the Context of Systemic Changes: Status Quo, Conditions, and Prospects. *Global Review*, 45(6), 1-18. Retrieved from <http://www.siis.org.cn/shgjw201512107417/UploadFiles/file/20161223/201606002%20%E9%99%88%E4>

%B8%9C%E6%99%93.pdf

- Chen, F. (2015). Research on the Strategic Connection of the Belt and Road Initiative and India's Project Mausam. *Global Review*, 2015(6), 15-32. <https://doi.org/10.13851/j.cnki.gjzw.201506002>
- Chen, M. (2009). Territorial Sovereignty and Regional Security: An Analysis of China-India Border Dispute. *Taiwan International Studies Quarterly*, 5(1), 157-183. Retrieved from <http://www.tisanet.org/quarterly/5-1-7.pdf>
- Chen, M. (2013). Indian China Policy: An Analysis of Its Factors and Decision-making Process. *Taiwan International Studies Quarterly*, 9(3), 155-173. Retrieved from <http://www.tisanet.org/quarterly/9-3-8.pdf>
- Chi, F., & Ji, X. (2015). Research on the Connection and Cooperation between the Silk Road Economic Belt and the Eurasian Economic Union. *Russian, East European & Central Asian Studies*, 2015(4), 34-40. Retrieved from <http://www.ooyj-oys.org/UploadFile/20150113002/2015-08-05/Issue/xt1gtgdud.pdf>
- Du, D., & Ma, Y. (2015). One Belt and One Road: The Grand Geostrategy of China's Rise. *Geographical Research*, 34(6), 1005-1014. <https://doi.org/10.11821/dlyj201506001>
- Fang, T. (2005). An Assessment of the Development and Possibilities of a China-India-Russia Strategic Triangle. *Prospect & Exploration*, 3(5), 20-33. Retrieved from https://www.mjib.gov.tw/FileUploads/eBooks/0c32ba8f559b4d2ca8a5a80e0ca0493d/Section_file/bd0f1961434b432f91c24161d2d4e8f1.pdf
- Hu, Z., Liu, W., & Song, T. (2015). Inter-Subjectivity Consensus, Geopolitical Structure and Building the One Belt and One Road. *Tropical Geography*, 35(5), 621-627. <https://doi.org/10.13284/j.cnki.rddl.002766>
- Jia, C., & Chen, Y. (2015). Relationships among China, the United States, and Russia from the Perspective of the Game Theory: New Trend and Operational Ideas. *Asia-Pacific Security and Maritime Affairs*, 2015(2), 59-70. Retrieved from <http://mall.cnki.net/magazine/Article/YFZH201504005.htm>
- Li, L. (2015). International Industrial Planning and the Bottleneck for Development along the Silk Road Economic Belt. *Urban Insight*, 2015(1), 5-12. <https://doi.org/10.3969/j.issn.1674-7178.2015.01.001>
- Lin, Y. (2016). The Reconstruction of India's Security Role in Southeast Asia: Toward "ASEAN-centric" Orientation. *Review of Global Politics*, 53, 83-118. <https://doi.org/10.29899/JRM>
- Lou, C., & Zhang, M. (2010). Strategic Importance of South Asia and China's South Asia Strategy. *Contemporary International Relationships*, 2010(2), 42-47. Retrieved from <http://xdgjgx.qikann.com/>
- Lu, S., & Wang, S. (2016). Review on the Research Achievements of the Belt and Road Initiative. *Russian, East European & Central Asian Studies*, 2016(5), 132-151. Retrieved from <http://www.ooyj-oys.org/Magazine/Show?id=35446>
- Luo, H. (2008). The Diplomacy of Balance in America's Foreign Strategy. *Journal of Social Science of Hunan Normal University*, 2008(2), 52-56. Retrieved from <http://www.airitilibrary.com/Publication/alDetailedMesh?DocID=hnsfdx-sh200802012>
- Luo, H. (2014). On the triangular relationship between China, America, and India since the US Pivot to Asia. *Journal of Central South University (Social Science)*, 2014(6), 177-182. Retrieved from <http://www.airitilibrary.com/Publication/alDetailedMesh?DocID=zndxxb-shkxb201406028>
- Men, H. (2017). Rise of China and Reform of International Order. *Quarterly Journal of International Politics*, 1(1), 60-89. Retrieved from <http://www.imir.tsinghua.edu.cn/publish/iis/7238/20160307/98431457317250194.pdf>
- Meng, Q. (2017). Viewing the Dong Lang Confrontation through India's Mentality. *Journal of Boundary and Ocean Studies*, 2(5), 21-34. Retrieved from <http://www.cibos.whu.edu.cn/res/soft/2017/ea88cba98bd4017c.pdf>
- Sun, D. (2014). Flexible Military Presence of China in the Middle East in the New Era. *World Economics and Politics*, 2014(8), 4-29. Retrieved from <http://mideast.shisu.edu.cn/ca/21/c3996a51745/page.htm>
- Tu, C. (2017). Triangle of China, India, and Russia: Theories, Conditions and Changes. *Russian, East European & Central Asian Studies*, 2017(4), 87-100. Retrieved from <http://www.ooyj-oys.org/UploadFile/Issue/dig2ov5j.pdf>
- Wan, Q. (2016). Analysis of the Dilemmas Facing Current Eurasian Economic Union-Connection with the Silk Road Economic Belt. *Eurasian Economic*, 2016(2), 54-61. Retrieved from

- <http://www.oyjj-oys.org/UploadFile/Issue/uglz3bg5.pdf>
- Wei, B. (2017). Russia's Geostrategy: View of Eurasian Economic. *Journal of Eurasian Studies Quarterly*, 1, 41-46. Retrieved from http://readopac2.ncl.edu.tw/nclJournal/search/detail.jsp?sysId=0006951628&dtdId=000040&search_type=detail&la=ch
- Wei, L. (2017). Analysis of India-Japan Active Diplomacy with the Rise of China. *Journal of Dali University*, 2015(1), 85-88. Retrieved from <http://www.airitilibrary.com/Publication/alDetailedMesh?DocID=dlxyxb201301024>
- World People News. (2017, May 18). India and Japan Jointly Promote the Free Corridor to Counter the Belt and Road Initiative. Retrieved September 10, 2019, from <http://www.worldpeoplenews.com/content/news/13609>
- Wu, Z. (2015). Strategy Development, Objectives and Implementation Path of India in the Asia-Pacific Region. *South Asian Studies*, 2015(4), 98-121. Retrieved from <http://www.airitilibrary.com/Publication/alDetailedMesh?DocID=nyyj201504007>
- Yang, J. (2018). China's Major Country Relationships and Periphery Maritime Strategies: Dealing and Shaping in the New Era. *Journal of Boundary and Ocean Studies*, 3(1), 14-23. Retrieved from <http://www.cibos.whu.edu.cn/index.php?id=867>
- Yang, L. (2016). Establishment, Practice, and Impact of Greater Eurasian Partnership by Russia. *Eurasian Economic*, 2017(6), 57-72. Retrieved from <http://www.oyjj-oys.org/UploadFile/Issue/z5zf1oug.pdf>
- Ye, H. (2016). South Asia Strategy of India and Its Impact on China's Promotion of the Belt and Road Initiative. *Indian Ocean Economic and Political Review*, 2016(2), 4-15. <https://doi.org/10.16717/j.cnki.53-1227/f.2016.02.001>
- Zhan, Y. (2017). Silk Road Economic Belt and Eurasian Economic Union: Difference and Connectivity. *International Economic Review*, 2017(4), 149-160. Retrieved from <http://big5.oversea.cnki.net/kcms/detail/detail.aspx?dbCode=cjfd&QueryID=14&CurRec=11&filename=GJPP201704011&dbname=CJFDLAST2017>
- Zhang, K., & Chiou, C. (2012). New Thinking on the Act East Policy of India. *International Studies*, 2012(4), 90-103. Retrieved from <http://www.airitilibrary.com/Publication/alDetailedMesh?DocID=gjwtyj201204010>
- Zhang, L., & Li, P. (2016). Cognition of India toward the Belt and Road Initiative and the Countermeasures of China. *South Asian Studies Quarterly*, 2016(1), 18-38. Retrieved from <http://www.airitilibrary.com/Publication/alDetailedMesh?DocID=nyyjjk201601003>
- Zhu, C. (2015). Dilemmas and Strategic Options vis-à-vis India's China Policy under the Modi Administration. *South Asian Studies Quarterly*, 2015(3), 8-10. Retrieved from <http://www.airitilibrary.com/Publication/alDetailedMesh?docid=nyyj201503001>

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 Effect of Using Six Sigma Approach in Improving the Quality of Health Services in the Jordanian Ministry of Health

Ramzi Mubarak Al-tarawneh¹

¹ Business Management, The World Islamic Sciences and Education University, Jordan

Correspondence: Ramzi Mubarak Al-tarawneh, Business Management, The World Islamic Sciences and Education University, Jordan.

Received: September 20, 2019

Accepted: October 24, 2019

Online Published: November 8, 2019

doi:10.5539/ibr.v12n12p11

URL: <https://doi.org/10.5539/ibr.v12n12p11>

Abstract

This research aimed to examine the effect of using the Six Sigma approach with its sub-variables (management commitment and support, feedback and measurement, continuous improvement, processes and systems, human resources) on improvement quality of health services with its sub-variables (response, reliability tangibility) at Jordanian Ministry of Health ,at the top management level, to achieve the study objectives, a questionnaire was designed which consists of (48) items , used for collecting primary data from study sample (57) participant of top management level at the Ministry of Health, Accordingly the data were collected, analyzed, and hypotheses were tested using the Statistical Package for Social Sciences (SPSS), other statistical methods were used to achieve the study, The study finding revealed that: "There are a statistically significant impact at the level of significance ($P \leq 0.050$) of the Sigma Six standards and its sub -variables on the improvement of the Health services quality which presented ,by the Jordanian Ministry of Health, Based on such results the researcher recommended a number of recommendations, the most important one are :The Ministry of Health should introducing Sigma Six concept , standards, and implementing it at the top level management, and training all the employees at top management on sigma six, linking Sigma Six standards to ministry strategies, and provide all the necessary for that.

Conducting further studies that will show the positive effects of Six Sigma standards application in reducing the financial costs for health services ,and working to applying these standards to the human resources management functions.

Keywords: Six Sigma standards, health service quality, ministry of health, top management

1. Introduction

The first decade of the twenty-first century witnessed a set of economic technological changes, that creation many challenges for organizations business, public and private sectors, including organizations specialized in health services, needing to develop itself and improve the quality of services provided to its customers, so they can gain an advantage to Their competitiveness with other organizations working in the same service sector, achieving their priority in growth, continuity and competition.

Health care organizations face many problems trying to satisfy their patients, whether in terms of their needs or expectations, employees motivation, intense competition, modern technology and high costs of health care, which obliged these organizations to find ways that are effective, useful for health institutions and patients and employees, and here comes Sigma Six the role as an effective tool that helps in obtaining accurate explicit data to prevent employees at higher administrative levels, from making their decisions based on personal judgments, Sigma Six reduces incorrect solutions , reduces the cost of the service.

Health care institutions are focusing their attention ,on improving the safety and satisfaction of patients, because patients are, looking for quality as a condition for choosing a care service ,because there is no way that the quality of service is poor (defective), because it is sometimes a decisive factor between life and death. Six Sigma in Health Care, help improve the quality of patient care, and reduce waste and get rid of defects.

The health system in Jordan, like other health systems in the world, facing challenges related to comprehensive coverage of health services and financing, quality of services and governance ,in all its dimensions, and keeping pace with medical technology , information technology, which requires it to address these challenges in coordination, cooperation with other health sectors, to achieving the desired goals, and contribute effectively to

Promote sustainable development in Jordan, in line with Jordan Vision 2025 and the National Health Sector Reform Plan.

Achieving quality in any service process is no longer a luxury but a necessity for the continuation of this process and reaping the desired fruits, it was necessary to use the Six Sigma method as one of the methods of continuous development in which the Ministry of Health found a new method to improve the quality of its health services.

Based on his position and social responsibility, the researcher seeks to conduct this study to demonstrate the impact of using Six Sigma approach in improving the quality of health services in the Jordanian Ministry of Health at the top management level]

1.1 Research Problem and Research Questions

Jordan take a place at middle regional location making it the first attention from the Arab countries, a good medical reputation that exceed surrounding countries, made it the first tourist destination in the Arab world, but Jordan has been exposed during the past years, to many international, regional pressures, which posed a challenge and burden, ministry hospitals, facilities , as a result of the refuge operations from neighbor countries, also government pressure and popular demands to develop and improve the quality of health care services.

The problem of the study was touched by the researcher , from his personal experience, through his working in the ministry of Health, there is a decline and disparity in the level of health service delivery between place and another therefore there is a lack of knowledge about Sigma six approach by employees at top management levels, and awareness of its importance, in improving the quality of health service in case It was applied in the Ministry of Health, therefore the importance of the study coming from answering the following key question:

1. What is the effecting by using Six Sigma methodology in improving the quality of health services provided by the Ministry of Health?

2. The main question has emerged from the following sub-questions:

- What is the possibility of using the Six Sigma standers at the higher administrative levels in the Ministry of Health?
- What is the importance of Sigma Six in improving the quality of health service?

1.2 Significant and Contribution

The importance of the study lies in its originality, it is considered the first of its kind in Jordan, which studied the use of Sigma Six methodology in the health services sector, specifically the Ministry of Health - as far as the researcher is aware - and that most studies have addressed, this issue in the industrial, academic establishments, and health institutions in the private sector, The importance of the study as the following:

1.2.1 Scientific Importance

By providing a scientific addition about the variables of the study and provides ,a theoretical framework, that addresses those variables , linking its results with the results of previous studies, and to know the extent of agreement or disagreement, with them and to propose further studies in the future.

1.2.2 Practical Importance

The study draws its importance from the variables that dealt with, Sigma Six standers, and its impact on improving the quality of health services provided by the Ministry of Health, through a field study that leads to a set of results, conclusions and recommendations, that will be placed in the hands, of decision makers to benefit from them.

1.3 Study Objectives

This study is the first of its kind, according to the knowledge of researcher, which dealt with Sigma Six methodology in measuring the quality of health services in the Ministry of Health, the following objectives are set:

1 - Identify the effect of implementing Sigma Six standers at Ministry of Health through five main axes that considered as the requirements of applying the Sigma Six standers(commitment and Support of top management, continuous improvement, availability of necessary human resources, operations and information systems, feedback and measurement).

2 - Contribution to increase knowledge, and perception of this modern concept at the level of top management to improve the quality of health services provided.

2. Literature Review

2.1 Introduction

[As a result of the great developments in the field of management, and continuous change, in the work environments that imposed, many administrative concepts, whether new, or existing, but need to develop commensurate with the change experienced by organizations, and these concepts (Six Sigma), this concept has achieved widespread, It was first introduced by Motorola in the 1980s, which began using this method to express its quality program. It was also used by many international companies, such as General Electric, Sony and Ford, and achieved success in providing millions of States S correct application of the Six Sigma approach]

2.1.1 Six Sigma Concept

Sigma is a Greek symbol used as a standard to measure standard deviation, or dispersion of any phenomenon, whether physical, chemical, service, and dispersion often causes, a departure from the typical values required of that phenomenon. (Awad, 2012)

The term Sigma Six expresses that 99.99966% of production is not defective or rather 3.4 million is only defective while the 1 Sigma expresses that 31% of production is defective production.

As for the number six "6" it symbolizes a level of "Sigma," where there are several levels of Sigma as shown in the table below where the greater the number accompanying Sigma, this indicates an increase in the level of quality and decrease the percentage of defects in the product and vice versa, This is true and there are segments that use eight sigma instead of six such as the airline sector, and the ophthalmology sector.

Table 1. Sigma levels, defects and payoff

Defects Sigma levels	million chance of %	return
1	691.462	%68.27
2	308.538	%95.45
3	66.807	99.73%
4	6.214	%99.9937
5	233	%99.999940
6	3.4	%99.9999998

Source: (Salaymeh , 2007)

There are many six Sigma definitions all around one content:

•*Sigma Six*: (a process or strategy that enables enterprises to improve significantly in terms of their core operations, through the design and control of daily business activities, and reduce waste, and consumption of resources, while at the same time to meet the needs of the client and to satisfy him. (Nasr, 2009)

•*Sigma Six*: An administrative philosophy, contributing to problem solving and devising ways to improve both process and performance, through the recognition and / or elimination of unnecessary goods and services and loss of jobs and activities and can be described as a tight application of a wide range of statistical and non-statistical skills and methods to reduce The size of the resulting contrast in any given process. (Nazer , 2017)

•*Sigma Six* in the health sector: It is a regular statistical process to detect and address defects in performance, using the method of Sigma Six to reduce clinical bottlenecks and mechanism that leads to prolong time and high costs and bad results (Noor et al., 2012).

The definition according the researcher in the health sector refers to the "process analysis of technical processes to raise the level of quality of health care, and in accordance with the requirements of the patient."

2.1.2 Sigma Six Curriculum Criteria

-*Six Sigma Approach* : A clear methodological constructive strategy that includes a number of proven statistical and administrative tools such as illustrative maps are integrated in order to improve the quality of products or services by trained teams to apply this methodology .(Awad, 2011)

-*Top management*: Is the body responsible for setting the objectives and policy of the organization and long-term strategic planning and linking the organization with the environment and decision-making key governance and crisis management. (Abu Nasr, 2009)

-*Feedback and Measurement*: Provides feedback on quality programs staff performance continuously, allowing

for improved processes to raise the level of quality, contribute to the opportunities of excellence, creativity and success of the organization and the engagement of its customers. (Abdul Rahim, 2014)

-Continuous Improvement: A never-ending-process that aims to make modifications to processes and work methods to improve the quality of outputs, with the aim of achieving perfection through continuous improvement of business and production processes . (Sanjak , 2010)

-Human resources: efficient human resources required before the implementation of the Six Sigma (or during it in any organization), trained in the management operations, analysis of customer requirements ,and statistical tools in dealing with problems and linking the Six Sigma approach (promotions, incentives and rewards) Senior management to successfully apply this approach .(Jaber, 2015)

-Operations and systems: Includes a set of operations and activities carried out by the organization with the aim of providing service to customers.

3. Six Sigma Basic Principles

3.1 Principles of Sigma Six

Sigma Six is based on six principles according to: (Al-Otaibi, 2017)

Principle 1: Customer Focus.

The performance measurements at Sigma Six begin with the internal client “employees” and the external client “beneficiaries” because it is the first priority for the success, and continuity of the organization, so the institution is required to strive to meet the needs, and expectations of the client taking into account the continuous change of their needs and expectations.

Principle 2: Knowledge Management.

By focusing on solving its problems by building performance standards, and analyzing problems for decision-making based on scientific facts through data and information.

There are three main groups to choose the most suitable tools for solving problems through Sigma Six:

- -Team tools through responsibilities network and hands-on training.
- -Process development tools such as brainstorming, Pareto map, cause and effect analysis, and experimental design.
- -Statistical tools such as variance analysis, standard deviation, and graphs.

Principle 3: Focus on the Organization's operations and activities:

The term is intended to seek to prevent the problem before it occurs, to focus on how to address it, to review objectives on a continuous basis, to clearly identify priorities, and to avoid problems rather than remedy them after they have occurred.

Principle 4: Towards the Summit.

This requires meeting many conditions and requires management to have the ability to convince employees of the new changes that will occur and that this will affect them positively.

Principle 5: Unlimited Cooperation.

the elimination of administrative and psychological barriers, between the employees of the organization, and encourage ,and expand opportunities for cooperation ,between the internal groups of the organization instead of the spirit of competition, between them at all administrative levels with great care to encourage cooperation with the outside community.

Principle 6: Striving for perfection while allowing for error and continuous improvement:

The idea of continuous improvement stems from the principle of developing knowledge of the administrative and technical dimensions of the process and taking the necessary measures to develop to maintain the quality of performance and the application of new ideas and approaches to strive for perfection and excellence through Sigma Six.

4. Six Sigma Characteristics

The main objective of Sigma Six approach is to improve quality and efficiency, reduce waste in time, effort and energy ,and maximize profits, Sigma Six offers the benefit of companies in the form of profits, and value to the customer, and high quality products, and services at the lowest possible cost, thus companies can improve their competitive position ,in the markets by reducing defects In this regard, the organizations are interested in the

Sigma six method because of its characteristics, the most important are : - (Al-Rawi, 2011)

1. Access to permanent success: control of the market, innovation and continuous modernization in organizations and keep up with the administrative, technical, cultural developments appropriate to the success of constant and continuous in the competitive market.
2. Goal Setting: Sigma Six approaches focuses on the process and the client to set a fixed goal is to reach high performance as determined by Sigma Six approach or a level of performance close to perfection as expected by customers .(Al Nuaimi & Sweiss, 2008)
- 3 Continuous Improvement: The philosophy of Sigma Six emphasizes the importance of continuous improvement for organizations, wishing to develop from the principle of developing knowledge, to reduce the administrative, and technical process and taking the necessary measures to develop, and to reduce the deviations that occur in the technical scientific which helps in maintaining the quality of performance and increase productivity. (Abdul Rahim, 2014)
4. Encourage training and learning: Sigma Six standers contributes significantly to the speed of implementation of tasks, and brainstorming, acquire new skills of staff with an emphasis on the willingness of each organization its members, to learn and continuous improvement, and thus the appreciation of these employees and motivated and rewarded.
5. Implementation of strategic change: the proper application of Sigma Six requires a full understanding of the operations teams, and procedures of the organization, as a way to achieve success in the work, especially with regard to the introduction of new products, or access to new markets, or the acquisition of new customers and must be linked to this approach to the strategies of the organization and long-term trends.
6. Focus on defects: Sigma six methods focus on defects and reduce the likelihood of their occurrence and this requires the identification of organizational processes clearly which helps in identifying the defect in the company's operations. (Abdul Rahim, 2014).

5. The Benefits of Implementing Six Sigma

The benefits of implementing Six Sigma approach are considered one of the most important reasons that led the major international companies to implement it's:

1. Rise in the level of revenue: through efficiency and the ability to provide services and products better and without errors, which reflects positively on revenue.
2. Reduce the costs borne by the establishment: Reduce the error rate in products and waste in resources in addition to saving time and effort.
3. Reducing the cost of poor quality: It is the costs related to the correction of errors after the occurrence, which is accomplished in a non-conformity and is called the cost of failure and there are two internal divisions before the product or service to the client and outside any arrival, and contribute to the application of the approach to reduce these costs.
4. Reducing the cost of production per unit: The role of the product in reducing errors or defects of products and services by taking advantage of the property of production in large quantities, which reduces the cost per unit.

6. Six Sigma Theoretically

6.1 Organizational Structure of Six Sigma

The quality of Sigma Six is customer-centric, everything starts and ends with the customer, that customers have the right to expect performance, reliability, prices, competitiveness, punctual delivery, service , clear and accurate processing of transactions, all of which requires a strong vision of what Six Sigma can achieve for the company, Freedom to explore new ideas, and concepts and the authority, and resources needed to make the decision to apply the approach in the work within the facility and requires management to start mobilizing members of the organizational structure of the team, to implement the Six Sigma standers , and also identifies the members of the team special tasks commensurate with His rank, named after the art of karate, is a martial arts art: such as the master black belt, the black belt, the green belt, and their roles can be illustrated as follows: (Omari, 2015)

1. *Champion*: The executive director of the Six Sigma project is called one of the tasks of the hero to manage individuals through change, determine the Six Sigma vision of the organization, and choose the project and the candidates to implement it.

The hero has other tasks, including the allocation of resources to the team to complete his work, set a schedule

for the team to complete the project and evaluate the team's efforts, and also the necessary communications to move forward with the project and develop a road map for the implementation of Sigma Six.

2. *Master Black Belt*: Black Belt President participates the hero or sponsor of the project in some tasks, and has knowledge and understanding in the overall picture of the activity of the institution, and have a certificate of the Black Belt President, and the role of providing training and development at various levels of the institution, and help identify Projects, lead black belts in project work and support, participate in project reviews to provide technical expertise, assist in training and accreditation of black belts, assume key leadership programs, and facilitate the exchange of best practices in all organization facilities.

3. *Black Belt*: Black belt represents the person expert in the strategy of penetration, and the roles of several of the most important to identify obstacles and lead teams implementation of the project and guide, and reporting on each stage to the appropriate leadership levels.

4. *Green Belt*: The so-called trained employees who will lead the improvement teams, where they spend part of their time to complete the projects, but in return they will maintain their work and their basic responsibilities and can spend the green belt from 10 to 50% of their time on their projects and this depends on Their main business.

5. *Yellow Belt* (yellow belt): The yellow belt is called the project team members who work in Sigma six part-time projects part-time and yellow belt is the employee who received training in the basics of Sigma six during the full two or three days and has a greater understanding of the processes using Six Sigma tools and simple techniques.

6. *Executive leader* (implementation leader): It is the executive leader, where he carries out the full efforts of Sigma Six and usually holds the position of Vice President, which takes upon himself the development of Sigma Six vision within the framework of the company's business strategy, and his tasks are summarized in the following (remove obstacles and reduce resistance to change Encouraging others to respond to change, monitor results and share black belts in reviewing project outcomes, and must have strong leadership skills.

7. Health Services

7.1 Health Service Concept

The health service is the key to achieving health for all, and this has been confirmed by the Alma-Ata Declaration since 1977. It is also part of the development required to achieve social justice. It is the first contact of the people with the health care system. Although health services can be bought and sold, health cannot be traded. Good health is defined as a state of complete physical and mental health. Live and treat these problems if they occur.

7.2 Health Service Characteristics

The health services provided by hospitals have a number of characteristics that distinguish them from other services where the specificity of those services reflects the way in which the service can be provided to customers in terms of the following:- (Bakri, 2015)

1. The services of the hospital are characterized by being aimed at achieving a public benefit to various parties and beneficiaries, whether individuals or organizations.
2. The medical service is characterized by a high degree of quality because of its association with human life.
3. Government laws and regulations affect the operation of health institutions and hospitals, in particular, whatever their dependence.
4. Decision-making power in health organizations is somewhat distributed between management and physicians. Unlike business organizations, decision-making power is handled by one person or a group of people representing the power of management.
5. Health service can only be provided in the presence of the patient himself. This requires direct contact between the hospital and the beneficiary of the health service.
6. Because health services are linked to humans, they do not adopt the same standards as other services.
7. The fluctuation of demand for health services in the hours of the day or week requires the provision of health service to its applicants because it cannot apologize for the provision of those who need it

7.3 Health Services Provided by the Jordanian Ministry of Health

The Ministry of Health is one of the most important health sectors provide health services to citizens which concerned improving the quality of health services, continuing to work for all hospitals and health centers, to get

accreditation, and to reduce the steady increase in the increasing rates of non-communicable diseases, and reduce their complications, strive to contribute to universal health coverage, Completing computing and electronic linking projects in addition to supporting all possible measures to contribute to the promotion of medical tourism, controlling spending and directing it towards priorities to contribute to stimulate economic growth and promote sustainable development. MOH, in line with the vision of Jordan 2025. (Ministry of health strategy,2018-2012)

7.3.1 Types of Health Services Provided by the Jordanian Ministry of Health

The Ministry of Health provides many services, including primary health care services, which are provided through a wide network of comprehensive, primary and secondary health centers, communicable and non-communicable diseases, in addition to mental health and addiction services, reproductive health, health awareness and information programs, environmental and occupational health, and health. School, secondary and advanced health care, medical and nursing services, specialized, laboratory, ambulance, emergency, radiology services, blood transfusion. Pharmacy, quality and reliability. (strategy of ministry of health ,2018-2012)

8. Health Service Quality

8.1 Health Service Quality Concept

There are many definitions of the concept of quality and service, those who defined it as (a dynamic situation associated with physical products and services and individuals and processes and the surrounding environment to match expectations. (Al-dradka, 2002)

It has been defined by the British Standards Institute (BSI) "a set of qualities, features and properties of the product or service to satisfy and satisfy the urgent and necessary needs". (Abu El Nasr, 2009).

Accordingly, the quality as a simple concept refers to the quality of work and performance, which reflects positively on the client by obtaining his requirements and needs in the right form and quality required.

8.2 Dimensions of the Quality of Health Services

The dimensions of Sigma Six are divided into the following: (Issawi et al. 2018)

1. Continuous improvement: In the field of health services, it is an administrative philosophy aimed at continuously developing processes and activities related to machinery, tools, materials and personnel.
2. Response: In the field of health services, it means the ability, willingness and willingness of the service provider to continuously provide the service to the beneficiaries when they need it.
3. Reliability: means the ability of the health service provider (doctor, nurse, etc.) to perform the promised health service in a reliable manner.
4. Guarantee: In the field of health service is the result of accreditation or trust of patients with doctors and hospital staff, and confidence in their qualifications and ability.
5. Concrete: In the field of quality of health service, the following elements are included: Clean medical offices, hospital staff using standard means or machines, and prescriptions (medicines and medical supplies) should be easy to understand.

9. Previous Studies

(Alqatawneh et al,2019): " Six sigma application in Healthcare logistics " a Framework and a Case Study aimed to develop a proposed, framework for how to apply Sigma Six in the scope of healthcare logistics" researchers have used the study methodology One of the most important findings of the study, was the selection of the Six Sigma project to improve healthcare logistics ,one of the recommendations of the study was to use it to pave the way for further future research to clarify the ways in which Six Sigma is used in the field of improvement Health care Logistics.10

(Ahmad et al, 2017): "Effects of Six Sigma initiatives in Malaysian private hospitals" the studying aimed at applications of Six Sigma methodology, in Malaysian private hospitals, by measuring Six Sigma initiatives of private hospitals based on demographic composition such as Sex, Attitude and Work Experience Randomized stratified samples were used to collect data from eight hospitals, descriptive analysis and independent t-test and ANOVA samples were conducted in one direction using SPSS version 23, and from the results of this study, male respondents have a better perception of four aspects of Six Applications. Sigma such as process optimization tools, process optimization methods, Management of quality improvement activities and the formal planning process compared to the respondents, one of the most important recommendations is the continuous pursuit of knowledge in the field of Six Sigma using the strength of the relevant theories and basic principles of Six Sigma.

(Khalil, et al, 2014): Requirement for implementing six sigma approach in “Jordanian pharmaceutical industry, This study aimed to prove the key factor in making the application of Sigma Six in pharmaceutical factories possible, the exploratory method was used by designing Questionnaire to collect information on the trends of managers in pharmaceutical manufacturing factories, the most important results of the study that the key factor is the support and commitment of senior management and its role in cultural change in this concept, and the most important recommendations of the study to provide adequate support to achieve the objectives of Sigma six in addition to the need to train and educate workers in this concept.

10. Research Methodology

10.1 Study Hypothesis

Based on the study questions, to achieving the desired objectives, the following hypotheses have been formulated:

Main Hypothesis

(H₀1): There is no statistically significant effect at the level of significance (P≤0.050) of the Sigma Six Approaches with its combined dimensions (commitment and management support, feed feedback and measurement, continuous improvement, processes and systems, human resources) in improving the quality of health services by its combined dimensions (response). (Reliability, Tangibility) in Jordanian Ministry of Health.

A number of sub-hypotheses emerge from this hypothesis:

1. (H₀1-1): There is no statistically significant effect at the level of significance (P≤0.050) of the Sigma Six methodology by its combined dimensions on the response in improving the quality of health services in the Ministry of Health.
2. (H₀1-2): There is no statistically significant effect at the level of significance (P≤0.050) of the Sigma Six curriculum standards by its combined dimensions on reliability to improving the quality of health services in the Ministry of Health.
3. (H₀1-3): There is no statistically significant effect at the level of significance (P≤0.050) of the Sigma Six approach criteria on tangibility to improve the quality of health services in the Ministry of Health.

10.2 The Study Model

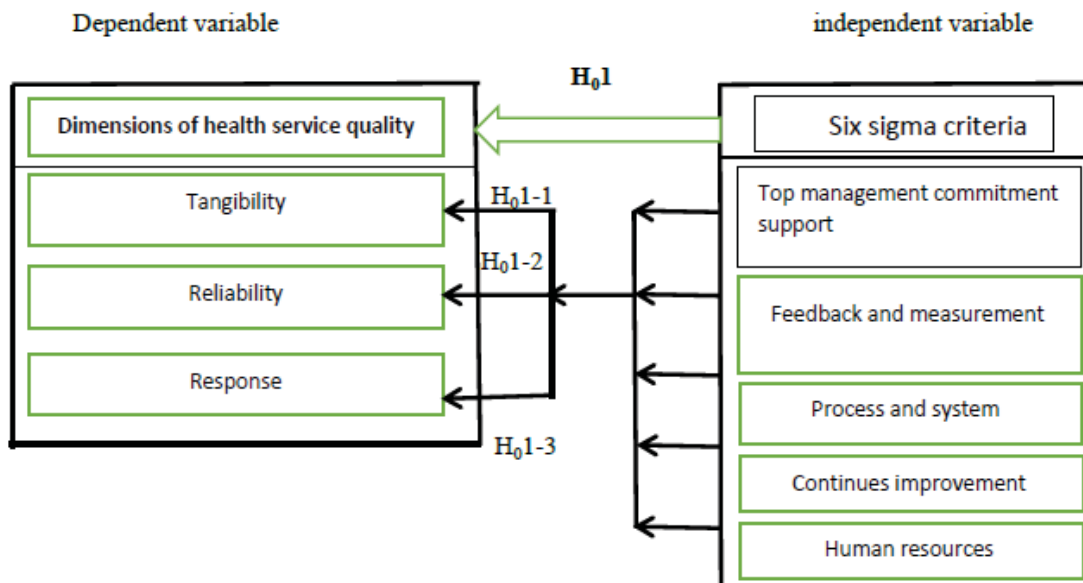


Figure 1. the study model

Figure (1) the study model prepared by the researcher based on the following references:

-Independent variable (Sigma six) : (Melhem, 2014), (Ahmed, 2017), (Naimi and Sweiss, 2008), (Tawfik, 2008) (Omari, 2011)

- The dependent variable (quality of services): (Taie et al., 2009)

10.3 Terms of Study / Procedural Definitions

For the purposes of the present study, the procedural definitions of the dependent and dependent variable will be as follows:

- Six Sigma Approach*: A quantitative approach to improve the quality of service in the Ministry of Health, by improving the leadership style, performance levels through the use of a number of mathematical equations to measure, determine the success of the Ministry of Health in its work.
- *Top Management*: It is the highest administrative levels in the Ministry of Health and concerned with planning, guidance, monitoring the overall results of the Ministry and the amendment of strategic plans.
- *Feedback and Measurement*: It is one of the evaluation methods used by the Ministry of Health to collect information on levels of performance and achievement, identify weaknesses and shortcomings and take corrective actions for errors and performance.
- *Continuous improvement*: One of the strategies followed by the Ministry of Health to improve its performance and, reduce waste in its resources, of time, expenses, operational costs, to achieve the highest levels of performance required.
- *Human Resources*: Human resources refers to the people working in the Ministry of Health, at various levels of management, where the Department of Human Resources is concerned with the management, of these people through certain methods, and strategies that work to raise, the performance of employees and solve the problems of work and achieve the ministry's desired objectives.
- *Operations and systems*: Includes a set of operations and activities carried out by the organization with the aim of providing service to customers.
- *Quality of health service*: The researcher believes that the quality of health service is represented by, a set of policies, procedures to provide health care services to the beneficiaries in a systematic, and objective manner and solve, the problems in a scientific way, through the workers in health organizations, who use their skills and expertise and health care techniques available to them, to meet the needs of patients Ensures the best results at the right time and place at the lowest possible cost.
- *Reliability*: The reliability of the researcher's point of view indicates, the ability of the service provider organization, to perform the service promised by the client, with a high degree of health, accuracy, time and performance.
- *Quality*: A set of characteristics enjoyed by the product that affects its ability to meet the stated and implied needs and the ultimate goal of service recipients' requirements and satisfaction.
- *Concrete*: The researcher means the physical facilities, associated with the provision of health service in the Ministry of Health, such as equipment, personnel, lighting, decoration, which is an influential element, in the patient's perception of the quality of service and build mental image of the service.

10.4 Study Determinants

Time Limits: The duration of the study procedures was determined in the summer semester of the academic year 2018/2019.

Spatial limits: the study is limited to senior management in the Ministry of Health.

Scientific Limits: The present study was limited to addressing the criteria of Sigma Six, represented by (commitment and support to management, feedback and measurement, continuous improvement, processes and systems, human resources) and the dimensions of the quality of health services, represented by (reliability, response, tangibility).

11. Sampling and Data Collection

Type and nature of the study: The study used the descriptive analytical methodology as a method of data collection, illustrative in terms of purpose. Syllabus is considered in terms of time horizon because it takes place on a sample at one time.

Strategy used in research: The researcher used the survey or sampling strategy as one of the most commonly used strategies in human and social research, as it allows the collection of a large amount of data, and we can obtain standard data that allows easy comparison and enable us to quantify them using descriptive statistics to reach the relationships between variables. (Najjar et al., 2018)

12. Sample Study

Study community: The study community consists of all employees at the top level of management in the Jordanian Ministry of Health (Center) and the number (57) employees.

Sample of the study: The researcher adopted Comprehensive survey method so that it is representative of each element of society without bias of the researcher due to the limited study population, the researcher has followed the method of comprehensive survey by distributing the questionnaire to all vocabulary of the study where the (57 A questionnaire distribution on all employees in the administration, who holds a job title manager and director of the Department and Assistant Secretary-General and the number of (57) employees and 41 questionnaires were recovered, about (0.719) .% Of the study sample]

Analysis Unit: The analysis unit consisted of employees at the higher administrative levels in the Jordanian Ministry of Health, where the data were analyzed using SPSS and using the following tests:

- Cronbach Alpha Coefficient to ensure the reliability and stability of the scale.
- Analysis of multiple linear regression and descriptive statistics (arithmetic mean, standard deviation, iterations and percentages.
- Data Collection Method (Study Tool):
- The researcher adopted the descriptive analytical method , the method of study applied and adopted several methods to collect the necessary data represented by the following:
- Secondary data: The data related to the subject of the study was collected through books, references, studies, previous research, letters and theses related to the subject of the study.
- Preliminary data were collected through a field study based on a questionnaire designed for the purposes of the study using the Likert scale which divided to.

Section I: Demographic data of the respondent.

Section II: paragraphs of the questionnaire and divided into two dimensions (48) paragraphs distributed as follows:

The first dimension: It was represented by a set of questions related to the standards of Sigma Six (namely, support and commitment of senior management, reverse feeding and measurement, continuous improvement, processes and systems, human resources) about (30) paragraph.

The second dimension: It was represented by questions associated with the dimensions of the quality of health services and divided into (response, tangibility, reliability) about (18) paragraph.

13. The Relevance of the Study Model to the Statistical Methods Used

To test the suitability of the study model, linear regression analysis and parameter tests, multiple linear correlation and autocorrelation, multicollinearity were tested as follows:

13.1 Multicollinearity Test

This phenomenon indicates that there is an almost complete linear correlation between two or more variables, which amplifies the value of the R2 coefficient and makes it greater than its actual value.

Table 2. correlation matrix of independent variables

Operation and systems	HR	Continues improvement	Feedback and measurement	Management commitments and support	Variable
				1.000	Management commitments and support
			1.000	0.769**	Feedback and measurement
		1.000	0.880**	0.785**	Continues improvement
	1.000	0.814**	0.829**	0.669**	HR
1.000	0.815**	0.770**	0.799**	0.738**	Operation and systems

Table (2) shows that the highest correlation coefficient was between the two variables (feedback and measurement) and (continuous improvement), which reached (0.880), which is greater than (0.80), this may indicate the existence of the phenomenon of multiple linear correlation between the variables. The value of the

correlation coefficient exceeding 0.80 is an indication of the problem of multiple linear high correlations.

To confirm the previous result, the coefficient of variance inflation was calculated for each of the independent variables to ensure a multiple linear correlation. The results were as follows:

Table 3. Multiple correlation test results between independent variables

Tolerance	VIF	Variable
0.324	3.082	Management commitments and support
0.170	5.866	Feedback and measurement
0.178	5.607	Continues improvement
0.228	4.386	HR
0.259	3.862	Operation and systems

Table (3) shows that the values of the variance inflation factor were all greater than the number 1 and less than the number 10, and the value of (Tolerance) was limited between the number 0.1 and the number 1, which indicates that there is no problem of multiple linear correlation between the variables of the study.

13.2 Validity and Stability of the Study Tool

The study tool has been subjected to a number of tests as follows:

-The questionnaire of the study instrument: The questionnaire was presented to a group of specialized arbitrators in order to express their opinion and in the light of the suggestions and observations made by the arbitrators, the researcher made the required adjustments. A number of observations were taken, which included an amendment to the wording of some paragraphs in terms of construction, language and content.

-Cronbach Alpha Coefficient was calculated to ensure the reliability and stability of the scale of the study variables and dimensions and the study tool as a whole, to determine the consistency of the answers; the results were as follows:

Table 4. Coherence coefficient values for the study instrument paragraphs

Alpha value	Number of paragraphs	Dimension	Number
0.863	6	support and commitment of senior management	1
0.941	6	feedback and Measurement	2
0.912	6	Continuous Improvement	3
0.907	6	Human Resources	4
0.864	6	Processes and Systems	5
0.972	30	Sigma Six Standards	
0.893	6	Response	6
0.790	6	Reliability	7
0.873	6	Intangibility	8
0.923	18	Health services quality dimensions	
0.973	48	All paragraphs	

From Table (4), the values of the internal coefficient of Cronbach's alpha coherence for the study instrument ranges (0.790 - 0.972), and the value of alpha for all paragraphs was (0.973). Study, the reliability and reliability of the study tool for statistical analysis.

14. Data Analysis and Hypothesis Testing

14.1 Characteristics of Sample Study

This section includes a description of the demographic and demographic characteristics of the study sample.

Table 5. Duplicates and percentages of the demographic and demographic characteristics of the study sample:

Percentage	Frequency	Category	Variable
61.0	25	Male	Gender
39.0	16	Female	
100	41	Total	
7.3	3	Assistant Secretary General	Job Title
9.8	4	Director of Administration	
82.9	34	Manager	
100	41	Total	
24.4	10	less than 5 years	Years of senior management experience
9.8	4	Less than 10 years	
29.3	12	- 10Less than 15 years	
36.5	15	15years and above	
100	41	Total	
0.0	0	Diploma	Educational Level
58.5	24	Bachelor's degree	
24.4	10	Master	
17.1	7	Doctorate	
100	41	Total	

It is clear from Table (5) that the category (males) constituted the largest proportion of the sample of the study sample, where they reached (61.0%), while the category (females) accounted for (39.0%) of the study sample, and this indicates that the vast majority Of the workers at the higher administrative levels are males, this may be due to the precedence of men for women to the labor market, and given the data and requirements of leadership and administrative positions, which may not be available to females.

And that the largest proportion of the sample of the study sample (Director), which reached (82.9%), and this corresponds to the nature of the organizational pyramid in modern organizations, where the number increases as we move to the base of the pyramid, and vice versa.

The sample (15 years and above) constituted the largest percentage of the sample (36.5%), followed by the experience category (10 - less than 15 years), which amounted to (29.3%). An indication that the senior management in the Jordanian Ministry of Health has sufficient experience to assume senior management positions and carry out their duties and duties and reflects their ability to absorb and quickly understand the Sigma Six standards.

Finally, we find that the category of holders of the first university degree (bachelor) has made up the majority of the sample of the study, where the proportion (58.5%) and this indicates a good percentage of the higher academic levels within the higher management levels.

14.2 Analysis of Study Tool Paragraphs

First: Description of Independent Variables, Six Sigma Method Criteria:

To compare the dimensions of the Six Sigma Curriculum Standards, the following table was prepared:

Table 6. Arithmetic averages, standard deviations, grades and relative importance of Sigma Six standards

relative importance	rank	standard deviation	Arithmetic	Variable	Number
medium	3	0.703	2.817	top management commitment and support	1
medium	2	0.921	3.024	Intermediate feedback and measurement	2
medium	1	0.824	3.093	Continuous Improvement	3
medium	4	0.813	2.659	Processes and systems	4
medium	5	0.758	2.654	Human Resources	5
medium		0.734	2.850	Six Sigma curriculum standards	

We note from the previous table that the overall average of the Sigma Six curriculum standards in terms of relative importance is average, where the average was (2.850) and a standard deviation of (0.734). After (continuous improvement) was ranked first with an average of (3.093) and standard deviation (0.824) and medium relative importance, while (human resources) was ranked last with an average of (2.654) and standard deviation (0.758) and of relative importance.

- Description of dependent variables, quality of health services:

To compare the dimensions of the quality of health services, the following table was prepared:

Table 7. Arithmetic averages, standard deviations, grades and relative importance of health service quality dimensions

Relative importance	Rank	Standard Deviation	Arithmetic	Variable Mean	Number
Medium	2	0.735	3.008	Response	1
Medium	1	0.641	3.085	Tangibility	2
Medium	3	0.651	2.967	Reliability	3
Medium		0.585	3.020	Quality of health services	

We note from the previous table that the overall average of the quality of health services in terms of relative importance is average, where the overall average (3.020) and standard deviation (0.585). After (tangibility) was ranked first with an arithmetic mean of (3.085) and standard deviation (0.641) and medium relative importance, while (reliability) was ranked last with an arithmetic mean (2.967) and standard deviation (0.651) and of relative importance.

14.3 Test Hypotheses of the Study

The main hypothesis:

:H0 "There is no statistically significant effect at the level of significance ($P \leq 0.050$) of the Sigma Six Criteria with its combined dimensions (management commitment and support, reverse feeding and measurement, continuous improvement, processes and systems, human resources) on improving the quality of health services by its dimensions (Tangible, responsive) at the Jordanian Ministry of Health.

To test the main hypothesis and its subdivisions, multiple linear regression analysis was used.

H01: There is no statistically significant effect at the level of significance ($P \leq 0.050$) of the Sigma Six curriculum standards by its combined dimensions on the response in improving the quality of health services in the Ministry of Health.

Table 8. Impact test results (Six Sigma curriculum criteria) on response

Coefficients					ANOVA			Model Summery		variable
Sig t*	T	Standard error	B	Statement	Sig F*	Df	F	R ²	R	
0.001	3.476	0.192	0.669	Senior management commitment and support	0.000	5	11.199	0.615	0.784	Response
0.772	0.291	0.203	0.059	Feedback and Measurement						
0.012	2.646	0.221	0.586	Continuous Improvement						
0.458	0.750	0.198	0.149	Operations and Systems						
0.064	1.912	0.200	0.382	Human Resources						

*The effect is statistically significant at ($p \leq 0.05$).

The results of table (8) indicate that the correlation coefficient ($R = 0.784$) indicates the relationship between the independent variables and the dependent variable, and the effect of the independent variables (Sigma Six Criteria criteria) on the dependent variable (response) is statistically significant, where the value of F calculated (11.199), and the level of significance (Sig = 0.000), which is less than 0.05, where it appeared that the value of the coefficient of determination ($R^2 = 0.615$) It indicates that (61.5%) of the variance in (response) can be explained by the variance in (The Sigma methodology criteria are six (combined), and the table of transactions showed that the value of B at the dimension (commitment and support of senior management) was (0.669) and the value of t at (3.476), and the level of significance (Sig = 0.001), indicating that the effect of this dimension is significant. And that the value of B at the dimension (feedback and measurement) was (0.059) and the value of t at (0.291), and the level of significance (Sig = 0.772), which indicates that the effect of this dimension is not

significant. The value of B at (Continuous Improvement) was (0.586) and the value of t at (2.646), and the level of significance (Sig = 0.012), which indicates that the effect of this dimension is significant. The value of B at the dimension (processes and systems) (0.149) and t at (0.750), and the level of significance (Sig = 0.458), which indicates that the effect of this dimension is not significant. The value of B at the dimension (HR)

(0.382)and the value of t is (1.912), with a level of significance (Sig = 0.064), which indicates that the effect of this dimension is not significant

Based on the above, we reject the first nihilistic hypothesis and accept the alternative hypothesis:

"There is a statistically significant impact at the significant level ($P \leq 0.050$) of the Sigma Six curriculum standards by its combined dimensions (commitment and support of senior management, feedback and measurement, continuous improvement, processes and systems, human resources) on the response in improving the quality of health services in the Ministry of Health".

H02: There is no statistically significant effect at the significant level ($P \leq 0.050$) of the Sigma Six curriculum standards by its combined dimensions (commitment and support of senior management, reverse nutrition and measurement, continuous improvement, processes and systems, human resources) on the reliability in improving the quality of health services in the ministry of health.

Table 9. Impact test results (Sigma Six curriculum criteria) on reliability

Coefficients					ANOVA			Model Summery		variable
Sig t*	T	Standard error	B	Statement	Sig F*	Df	F	R ²	R	
0.296	1.061	0.200	0.213	support of top management	0.000	5	6.173	0.469	0.685	Reliability
0.503	0.677	0.211	0.143	Feedback						
0.264	1.134	0.230	0.261	Continuous Improvement						
0.074	1.841	0.207	0.380	Operations and Systems						
0.252	164.	0.208	0.242	Human Resources						

*The effect is statistically significant at ($p \leq 0.05$).

The results of table (9) indicate that the correlation coefficient ($R = 0.685$) refers to the relationship between independent variables and dependent variable, and the effect of independent variables (Sigma Six Criteria criteria) on the dependent variable (reliability) is statistically significant, where the value of F calculated (6.173), and the level of significance (Sig = 0.000) which is less than 0.05, where the value of the coefficient of determination ($R^2 = 0.469$) It indicates that (46.9%) of the variance in (reliability) can be explained by the variance in (Six Sigma curriculum criteria) combined.

The transactions table showed that the value of B at the dimension (commitment and support of senior management) was (0.213) and the value of t at (1.061), and the level of significance (Sig = 0.296), which indicates that the impact of this dimension is not significant. The value of B at the dimension (feedback and measurement) was (0.143) and the value of t at (0.677), and the level of significance (Sig = 0.503), which indicates that the effect of this dimension is not significant. The value of B at (continuous improvement) was (0.261) and t at (1.134), and the level of significance (Sig = 0.264), which indicates that the effect of this dimension is not significant. The value of B at the dimension (processes and systems) (0.380) and t at (1.841), and the level of significance (Sig = 0.074), which indicates that the effect of this dimension is not significant. The value of B at (human resources) dimension (0.242) and t at (1.164), and the level of significance (Sig = 0.252), which indicates that the effect of this dimension is not significant.

Based on the above, we reject the second hypothesis and accept the alternative hypothesis:

"There is a statistically significant impact at the significant level ($P \leq 0.050$) of the Sigma Six curriculum standards by its combined dimensions (commitment and support of senior management, reverse feeding and measurement, continuous improvement, processes and systems, human resources) on the reliability in improving the quality of health services in the Ministry of Health".

H03: There is no statistically significant effect at the significant level ($P \leq 0.050$) of the Sigma Six curriculum standards by its combined dimensions (commitment and support of senior management, reverse feeding and

measurement, continuous improvement, processes and systems, human resources) on the concreity in improving the quality of health services in the ministry of health.

Table 10. The results of the impact test (Six Sigma Curriculum Standards) on concrete

Sig t*	Coefficients				ANOVA			Model Summery		variable
	T	Standard error	B	Statement	Sig F*	Df	F	R ²	R	
0.253	1.161	0.210	0.244	support of top management	0.002	5	4.633	0.398	0.631	Tangible
0.290	1.074	0.221	0.237	Feedback						
0.090	1.742	0.242	0.421	Continuous Improvement						
0.659	0.445	0.217	0.096	Operations and Systems						
0.008	2.830	0.218	0.617	Human Resources						

The effect is statistically significant at ($p \leq 0.05$).

The results of Table (10) indicate that the correlation coefficient ($R = 0.631$) indicates the relationship between the independent variables and the dependent variable, and that the effect of the independent variables (Sigma Six Criteria Methods) on the dependent variable (tangibility) is statistically significant. F calculated (4.633), and the level of significance ($Sig = 0.002$), which is less than 0.05, where the value of the coefficient of determination ($R^2 = 0.398$) It indicates that (39.8%) of the variance in (tangibility) can be explained by the variation in (Six Sigma curriculum criteria) combined.

The table of transactions showed that the value of B at the dimension (commitment and support of senior management) was (0.244) and the value of t at (1.161), and the level of significance ($Sig = 0.253$), which indicates that the impact of this dimension is not significant. The value of B at the dimension (feedback and measurement) was (0.237) and the value of t at (1.074), and the level of significance ($Sig = 0.290$), which indicates that the effect of this dimension is not significant. The value of B at (Continuous Improvement) was (0.421) and t at (1.742), with a significance level ($Sig = 0.090$), which indicates that the effect of this dimension is not significant. The value of B at the dimension (processes and systems) (0.096) and t at (0.445), and the level of significance ($Sig = 0.659$), which indicates that the effect of this dimension is not significant. The value of B at (human resources) dimension (0.617) and t value at (2.830), and the level of significance ($Sig = 0.008$), which indicates that the effect of this dimension significant.

Based on the above, we reject the third hypothesis and accept the alternative hypothesis:

"There is a statistically significant impact at the level of significance ($P.00.050$) of the Sigma Six curriculum standards by its combined dimensions on the concreity in improving the quality of health services in the Ministry of Health"

To test the first major hypothesis, multiple regression analysis was used. The results were as follows:

Table 11. Results of the impact test (Six Sigma Curriculum Standards) on the quality of health services

Coefficients					ANOVA			Model Summary		variable
Sig t*	T	Standard error	B	Statement	Sig F*	Df	F	R ²	R	
0.019	2.450	0.153	0.375	support of top management	0.000	5	11.207	0.616	0.785	Health Services Quality and Commitment
0.511	0.664	0.161	0.107	Feedback						
0.022	2.399	0.176	0.423	Continuous Improvement						
0.367	0.914	0.158	0.144	Operations and Systems						
0.013	2.602	0.159	0.414	Human Resources						

*The effect is statistically significant at ($p \leq 0.05$) .

The results of Table (11) indicate that the correlation coefficient ($R = 0.785$) indicates the relationship between the independent variables and the dependent variable. The effect of the independent variables (Sigma Six Criteria criteria) on the dependent variable (health services quality) is statistically significant. The calculated value of F was (11.207), and the significance level ($Sig = 0.000$) is less than 0.05, where the value of the coefficient of determination ($R^2 = 0.616$), which indicates that (61.6%) of the variation in (quality of health services) can be explained by during the contrast in (Six Sigma curriculum criteria) combined.

The transactions table showed that the value of B at the dimension (commitment and support of senior management) was (0.375) and the value of t at (2.450), and the level of significance ($Sig = 0.019$), which indicates that the effect of this dimension is significant. The value of B at the dimension (feedback and measurement) was (0.107) and the value of t at (0.664), and the level of significance ($Sig = 0.511$), which indicates that the effect of this dimension is not significant. The value of B at (Continuous Improvement) was (0.423) and t at (2.399), and the level of significance ($Sig = 0.022$), which indicates that the effect of this dimension is significant. The value of B at (processes and systems) dimension (0.144) and t at (0.914), and the level of significance ($Sig = 0.367$), which indicates that the effect of this dimension is not significant. The value of B at (HR) dimension (0.414) and t at (2.602), and the level of significance ($Sig = 0.013$), which indicates that the effect of this dimension significant.

Based on the above, we reject the main hypothesis and accept the alternative hypothesis:

"There is a statistically significant effect at the level of significance ($P \leq 0.050$) of the Sigma Six Approach dimensions by its combined dimensions (management commitment and support, reverse feeding and measurement, continuous improvement, processes and systems, human resources) on improving the quality of health services by collecting them at the Jordanian Ministry of Health".

15. Discuss and Conclusion

15.1 Descriptive Analysis of Study Variables (Relative Importance of Study Variables)

1. The results of the descriptive analysis of the independent variable (Sigma Six Criteria) showed, that the Sigma Six Criteria in terms of relative importance was average, as well as the analysis showed, that after (Continuous Improvement) came first and with relative importance, while (Human Resources) came last. And of relative importance.

2. The results of the descriptive analysis of the dependent variable (the quality of health services) showed that the overall average of the quality of health services, by dimensions in terms of relative importance, was the average, as well as the analysis showed that after (tangibility) came first, and with relative importance, while came after (reliability) in The last rank is of relative importance.

16. Recommendations

Based on the previous results, the researcher recommended the following:

1. The Ministry of Health should pay more attention to the concept, and criteria of Sigma Six curriculum, and its application at the level of top management, and its role in the success of this curriculum.
2. Train all employees in the top management and various levels in these departments on the Sigma Six,

standards and provide the necessary financial support, to motivate the employees by linking the use of Sigma Six standards, with material and moral incentives.

3. The top management must set their priorities to develop and improve, the service and adopt new initiatives contribute, to improve the levels of service provided in the ministry.

4. The need to create specialized administrative units to receive complaints and suggestions, from the recipients of the service, and give them the opportunity to contribute, to the development and improvement, of performance and service by providing an information system, on the service provided, which helps in decision-making processes and improve.

5. Supplying the ministry, with its human needs of medical and technical cadres, expanding the residency programs and providing a system of scholarship for comprehensive medical specialties.

6. The Ministry should carry out more future studies that show the positive effects of the application of the Sigma Six criteria on the financial costs of health services and study the possibility of applying these Sigma Six approach to human resources management functions.

7. Researchers should conduct future studies on other variables.

References

- Abdul, R., & Omar, Y. I. (2014). *Possibility of Using Six Sigma in Improving the Quality of Banking Services in Islamic Banks* (Doctoral dissertation, International Islamic Science University).
- Ahmad, S. A. (2017). *The role of costing quality in achieving the objectives of continuous improvement*. Jordan, Amman: Dar Al-Raneem for Publishing and Distribution.
- AL- qataweh, L., Abdallah, A. A. A., & Salam, Z. (2019). Six Sigma Application in Healthcare Logistics: A Framework and A Case Study. *Journal of Healthcare Engineering*, 2019, 12. <https://doi.org/10.1155/2019/9691568>
- Al-Dararaka, M., & Shibli, T. (2002). *Quality in Modern Organizations*. Jordan, Amman: Safa Publishing House.
- Al-Najjar, F. J., Al-Najjar, N. J., & Al-Zoubi, M. R. (2018). *Scientific Research Methods - An Applied Perspective*.
- Alnjar, S. M. A. (2011). *The implementation of six sigma and its effect on knowledge creation: the case of Jordan healthcare hospital* (Master thesis, Faculty of Economics and Administrative Sciences, Yarmouk University, Jordan).
- Al-Nuaimi, M. A., & Sweis, R. K. (2008). *Sigma Six Accuracy in Quality Management Concepts and Applications*. Jordan, Amman: Athraa Publishing and Distribution.
- Al-Omari, A. M. (2015). *The impact of critical success factors in the application of graceful hexagonal diffraction in service organizations: case studies* (Doctoral thesis, Faculty of Graduate Studies, University of International Islamic Sciences. Jordan).
- Al-Otaibi, A. G. D. (2017). Requirements for the application of the principles of Sigma Six "according to the model DIMAC" DMAIC "at the University of Shaqra from the point of view of its leaders. *Journal of Studies, Educational Sciences*, University of Jordan.
- Alrawai, S. A. A. G. (2011). *Using Six Sigma Approach in Quality Control of Internal Audit, Field Study on Private Award Winning Hospitals in Amman Governorate* (Master's Thesis, Accounting Department, Faculty of Business, Middle East University).
- Al-Tai, Y. H., Ajili, M. A., & Hakim, L. A. (2009). *Quality Management Systems in Productive and Service Organizations*. Jordan, Amman: Dar Al Yazouri Scientific Publishing and Distribution.
- Awad, M. I. (2011). *Application of Sigma Six in service and industrial organizations*. Amman: Dar Al Fikr Publishers and Distributors.
- Bakri, T. (2005). *Health Services Marketing*. Jordan, Amman: Dar Al Yazouri Scientific Printing & Publishing.
- Issawi, N. S., & Al-Tahan, E. A. K. (2018). Intellectual Capital as an intermediary variable between the quality of career and the Sigma Six methodology applied to workers in the Ministry of Health in Saudi Arabia. *Arab Journal of Management*, 38(3), 189.
- Jaber, A. (2015). *The reality of human resources management according to the European model of excellence in the Palestinian government sector and ways to develop* (Unpublished master's thesis). Al-Aqsa University,

Gaza.

Jordanian Ministry of Health Strategy for the years. (2018-2020).

Khalil, K. M. (2014). *Requirement for implementing six sigma approach in Jordanian pharmaceutical industry* (Master Thesis, Faculty of Economics and Administrative Sciences, Yarmouk University, Jordan).

Melhem, Y. S. (2014). *6 Sigma from a qualitative perspective*. Jordan, Amman: Wael Publishing.

Noor, A. N. et al. (2012). Using the Six Sigma Approach in Quality Control Internal Audit. *11th Annual Scientific Conference "Business Intelligence and Knowledge Economy, Faculty of Economics and Administrative Sciences, Al-Zaytoonah University*.

Omari, H. A. O. (2011). The extent of adherence to the standards of adoption of international quality in the health services sector in the Kingdom of Saudi Arabia: a survey study applied to the province of Jeddah. *Arab Journal of Management*.

Poetry, M. H. H. (2014). *The Impact of Using Six Sigma on Customer Value and Satisfaction: A Case Study of a Mobile Security Company* (Master Thesis, Business School, Middle East University, Jordan).

Salaymeh, N. (2007). *Possibility of Using Six Sigma to Improve Health Performance at Arab Medical Center* (Master Thesis, Amman Arab University for Graduate Studies, Jordan).

Samiha, S. A. R. (2017). *The Extent of Sigma Six Approach in the Major Food Manufacturing Companies in the West Bank* (Master Thesis, Faculty of Graduate Studies, Hebron University, Palestine).

Sanjak, G. M. (2010). *United Nations International Standards Committee for Hospital Accreditation Between Theory and Practice*.

Tawfik, A. R. (2008). *6 Sigma and the matrix of balanced performance for those who seek optimal performance*. Egypt, Giza: Center of professional expertise for management.

Victory, M. M. (2009). *Introduction to Total Quality Management and Sigma Six*. Giza: International Publishing and Distribution House.

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 Effect of Workplace Spirituality on Innovative Work Behavior

Vimansha R. Ranasinghe¹, Samantha M. Samarasinghe²

¹ Department of Human Resource Management, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka

² Department of Information Technology, Faculty of Management Studies and Commerce, University of Sri Jayawardenepura, Sri Lanka

Correspondence: Vimansha Rangani Ranasinghe, Faculty of Commerce and Management Studies, University of Kelaniya, Kelaniya, Sri Lanka.

Received: October 1, 2019

Accepted: October 28, 2019

Online Published: November 8, 2019

doi:10.5539/ibr.v12n12p29

URL: <https://doi.org/10.5539/ibr.v12n12p29>

Abstract

Workplace spirituality is a novel concept and it has been identified as a unique way to improve organizational performance. On the other hand, many organizations are experiencing undesirable consequences of lack of workplace spirituality, such as employee stress, turnover, absenteeism, and lack of employee creativity. Hence, organizations are now focusing on developing workplace spirituality in the workplaces as it offers many advantages to organizations. Despite the growing interest on workplace spirituality, there is still a dearth of research on the topic of workplace spirituality. Literature suggests that employee innovative work behavior directly leads to enhance organizational performance and workplace spirituality leads to increase innovativeness and creativity of employees. Hence, the purpose of this paper is to fill the gap in literature, to a certain extent by proposing a conceptual model to examine the effect of workplace spirituality on employee innovative work behavior. Thus, it proposed that there is a positive effect of workplace spirituality on employee innovative work behavior. Consequently, intrinsic motivation from componential theory of creativity was integrated to identify the mediating effect of intrinsic motivation on the effect of workplace spirituality on innovative work behavior.

Keywords: workplace spirituality, innovative work behavior, intrinsic motivation

1. Introduction

Employee innovative work behavior is essential for long-term survival of organizations (Afsar & Rehman, 2015; Oldham & Cumming, 1996) as innovative work behavior is essential for achieving competitive advantage over their competitors (Aravamudhan & Krishnaveni, 2014). Innovative work behavior of employees has taken a burgeoning interest of employers in organizations due to highly dynamic economic environment, globalization, ever changing customer wants in the business environment and rapid change in the market (Akram, Lei & Haider, 2016; Tajeddini & Trueman, 2008). According to Afsar and Rehman (2015) spirituality of an individual's mindset encourage or motivate creativity and innovativeness within a person and it directly affects organizational productivity. Moreover, workplace spirituality brings happiness and joyfulness to the employee and it provides a meaningful working environment for the employees (Milliman, Czaplewski & Ferguson, 2003). Today, organizations are experiencing negative consequences of lack of workplace spirituality, such as employee stress, turnover, and absenteeism which reduces organizational performance (Ashmos & Duchon, 2000; Hassan, Bin Nadeem, & Akhter, 2016).

Previous studies revealed that workplace spirituality positively related with employee work attitudes (Neck & Milliman, 1994), employee engagement (Roof, 2015; Saks, 2011), organizational citizenship behavior (Saks, 2006), intrinsic work satisfaction (Milliman et al, 2003), trust and personal fulfillment (Krishnakumar & Neck, 2002), and job satisfaction (Lee, Lovelace, & Manz, 2014; Mydin, Kanesan, & Pitchay, 2018; Milliman, et al., 2003). Further, workplace spirituality increase the productivity of the organization (Fry & Matherly, 2006), innovation and creativity of the employees, and employee performance (Giacalone & Jurkiewicz, 2003; Jurkiewicz & Giacalone, 2004). Fry (2003) identified that workplace spirituality encourages employee to play extra role or pro-social behavior, develop unity within the organization, reduce absenteeism, reduce turnover (Milliman et al., 2003; Gatling, Kim, & Milliman, 2016) and decrease employee deviant behavior (Ahmad & Omar, 2014). Lee et al. (2014) examined the relationship between workplace spirituality and the ethical climate

and identified a significant positive relationship between workplace spirituality and ethical climate. Workplace spirituality has a positive impact on decision-making, problem solving capabilities, and greater creativity (Weitz, Vardi, & Setter, 2012). Ahmadi, Nami, and Barvarz (2014) posited that workplace spirituality is not related to any particular religion or religious system. Moreover, prior studies found that valuing the work is a vital driving force to be intrinsically motivate the employee (Fry, 2003; Urdan & Maehr, 1995).

Though the organizational leaders have understood the importance of innovative work behavior of employees and workplace spirituality (De Jong & Den Hartog, 2007; Gupta, Kumar, & Singh, 2014; Rego & Pina e Cunha, 2008; Saks, 2011), it was not sufficiently studied (Afsar & Rehman, 2015; Duchon & Plowman, 2005; Jurkiewicz & Giacalone, 2004). Burgeoning interest on workplace spirituality has led to develop different theories and empirical work on workplace spirituality and its outcomes (Kolodinsky, Giacalone, & Jurkiewicz, 2008; Pawar, 2009). However, dearth of research on the topic of workplace spirituality was highlighted (Gatling et al., 2016; Pauer, 2014; Sheep, 2006) especially in the Eastern world (Petchsawang & Duchon, 2009). Besides, human beings are not only rational but also emotional and spiritual (Rego & Pina e Cunha, 2008). Hence, the objective of the current study was to examine the effect of workplace spirituality on the innovative work behavior of employees. Further, intrinsic motivation from componential theory of creativity was integrated to the model to identify the mediating effect of intrinsic motivation on the effect of workplace spirituality on innovative work behavior.

To align with the objective of the study, this paper hypothesized a conceptual model for workplace spirituality and employee innovative work behavior. The conceptual model was developed based on the literature related to the innovative work behavior (as the dependent variable) and workplace spirituality (as the independent variable). Employees show creative working behavior when their work is meaningful (Afsar & Rehman, 2015). Moreover, intrinsic task motivation is one of the components that enhance individual's creative behavior (Amabile, 2012; Vinarski-Peretz & Carmeli, 2011). Besides, there is a significant positive effect of workplace spirituality on intrinsic motivation (Chalofsky & Krishna, 2009; Fry, 2003; Urdan & Maehr, 1995). Hence, the proposed conceptual model suggests that intrinsic motivation mediates the effect of workplace spirituality on the innovative work behavior of employees.

The rest of the paper is organized as follows. Section 2 presents the review of literature concerning workplace spirituality and innovative work behavior of employees. Next, in Section 3, formulation of hypotheses and the development of the conceptual model is discussed. Section 4 presents the theoretical framework and methodology of this study is given in Section 5. Then, the implications of this study and directions for future research are presented in Section 6. Finally, the conclusion of the study is given in Section 7.

2. Literature Review

2.1 Workplace Spirituality

Workplace spirituality refers to “the recognition that employees have an inner life that nourishes and is nourished by meaning work that takes place in the context of community (Ashmos & Duchon, 2000, p.137). Belwalkar, Vohra, and Pandey (2018) defined workplace spirituality as the experience which people undergoing when seeking meaning in their work and desire to connect with other human beings. According to Harrington (2004, p.33) “spirituality is employees’ sharing and experiencing some common attachments and attractions with each other within the workplace.” Pawar (2009) explained spirituality as the employee experience that includes sense of meaning, community, and transcendence Kolodinsky et al. (2008) referred organizational spirituality as employee attitudes towards higher order values and promoting those values to realize collective interest through fulfilling an individual's interests.

According to Mousa and Alas (2016), the concept of workplace spirituality has become a buzzword in contemporary organizations. Further, organizations consist of group of people and the spiritual needs of individuals should fulfill accordingly (Krishnalumar & Neck, 2002). Otherwise, individuals become dissatisfied and organizational spirituality becomes low. Bringing employees’ heart, soul, mind, and body into one place is very much important for both individual and organizational success (Mousa & Alas, 2016).

Workplace spirituality consists of individual experience with his/her inner feelings (Kinjerski & Skrypnek, 2004) and his/her workplace environment (Jurkiewicz & Giacalone, 2004). Workplace spirituality is not about specific religion or converting people to a particular religious’ system (Ashmos & Duchon, 2000; Afsar & Rehman, 2015; Pourmola, Bagheri, Alinezhad, & Nejad, 2019). According to Fagley and Adler (2012), through workplace spirituality, employees can find out their ultimate purpose of life. Thus, it leads to develop connectedness with peers and others related to the working environment. Workplace spirituality includes tolerance, feeling of interconnectivity, acceptability of the norms in organizations (Afsar & Rehman, 2015), kindness, empathy, and

trust (Hassan, Bin Nadeem & Akhter, 2016). According to the review of literature much of the studies defined workplace spirituality at individual level (Ashmos & Duchon, 2000; Duchon & Plowman, 2005; Milliman et al., 2003) and some other studies have defined workplace spirituality at organizational level (Jurkiewicz & Giacalone, 2004; Kolodinsky et al., 2003).

Now a days most of the people are more spiritual not only in their personal life but also in their working life (Neck & Milliman, 1994). The benefits of workplace spirituality can be categorized under three levels; individual-level, organizational level and societal level (Faro Albuquerque, Campos Cunha, Dias Martins, & Brito Sá, 2014). Individual level benefits include the mental and physical fitness of employees, dramatic increase in personal growth and self-worth (Krahnke, Giacalone, & Jurkiewicz, 2003), and realization of employee full potential (Mitroff & Dentor, 1999). Workplace spirituality leads to an increase in work productivity because it creates an enjoyable working experience in the workplace (Janfeshan, Panahy, Veisheh, & Kamari, 2011). According to Neck and Milliman (1994) organizations focusing on spiritual values tend to provide more opportunities to employees for their personal growth and development. Furthermore, it was observed that workplace spirituality leads to increase feeling toward others and it acts as a weapon that attracts and retain employees within the organization (Giacalone & Jurkiewicz, 2003; Jena & Pradhan, 2018). Enhancing trust among people (Neck & Milliman, 1994) and increasing interconnectedness (Daniel, 2015) create a more motivated organizational working environment as benefits of workplace spirituality. Workplace spirituality is very much important not only because it leads to enhance personal growth but also to increase the psychological contract between employers and employees (Ahiauzu & Asawo, 2012). Simply, the goals of the spirituality are to reach a higher personal potential that leads to greater employee creativity, commitment, and motivation (Osman-Gani, Hashim, & Ismail, 2013). Pandey, Gupta, and Arora (2009) identified workplace spirituality as an employee friendly working environment which mainly focuses on employee spirit. Moreover, Fairholm (1996) identified organizations as spiritual entities because employees spend more hours at the workplace. According to Brown (2003) organizational spirituality leads to improve integrity, introduce ethics to the workplace, motivate emotional competencies, and establish specific groups in the workplace and empowering the workforce.

Different scholars see workplace spirituality as a multi-faceted construct (Hussain & Sharma, 2012; Singh & Mishra, 2016). There are six dimensions of workplace spirituality, namely, 1) inner life 2) meaning and purpose in work 3) a sense of connection and community 4) block of spirituality 5) personal responsibility and 6) positive connection with other individual and contemplation (Ashmos & Duchon, 2000). However, Milliman et al. (2003) did some modifications to these dimensions and introduced three new dimensions that mainly focus on motivation and psychology. Meaningful at work focus on individual level was the first dimension (Janfeshan et al., 2011). The sense of community was the second dimension focusing on the community level. The third dimension was organizational values which aligned with the organizational level. Some scholars categorized workplace spirituality into three camps based on the definitions, such as individual experience and organizational facilitation and a mix of both (Petchsawang & McLean, 2017). According to Burack (1999) workplace spirituality has three main components, namely internal, external and integrated.

2.2 Intrinsic Motivation

Intrinsic motivation refers to the degree of interest or enjoyment that an individual is experiencing when performing a work task without being controlled by external factors (Saeed, Afsar, Shahjehan, & Shah, 2019). According to Legault (2016), intrinsic motivation refers to engaging in the behavior that is inherently enjoyable and intrinsically motivated action that is not separable from the behavior. For instance, children play outdoor games (such as running, jumping) not for any reason just because of their fun and internal satisfaction. Ryan and Deci (2000) found that enjoyment and psychological well-being as some benefits of intrinsic motivation. Nevertheless, the social environment should play an important role to flourish the intrinsic motivation and this can be done by influencing perceived autonomy and competence. For an example, when supervisors give positive feedback to their employees, intrinsic motivation of those employees rises. However, to have more fruitful results employees should have autonomy and feel competent in performing the action.

Componential theory of creativity (Amabile, 2013) identified three components of creativity namely domain relevant skills, creativity relevant process, and task motivation. According to Amabile, intrinsic motivation involves activity of interest, enjoyment and personal sense of challenge and this is only not sufficient to get favorable creative outcomes (Vinarski-Peretz & Carmeli, 2011). Intrinsic motivation is an important condition for innovative work behavior because it influence employee's cognition, behavior and emotions and directly affect their performance (Saeed, Afsar, Shahjehan, & Shah, 2019; Zhou & George, 2003). When employee behavior is controlled by intrinsic motivation, his/her actions become more stabilize and his/her performance goes up. According to Jaussi and Dionne (2003) employee creative performance increase when they are

intrinsically motivated. Saeed, Afsar, Shahjehan, and Shah (2019) also highlighted that intrinsic motivators are bound up with the work itself.

2.3 Innovative Work Behavior

Innovative work behavior is considered as a very important tool that leads to gain competitive advantage over competitors in this knowledge-driven economy as no organization can survive without having continuous innovation (Mayfield & Mayfield, 2014). Innovative work behavior refers to deliberately introducing new ideas and implement those ideas with the behavior modification to increase organizational as well as employee's performance (De Jong & Den Hartog, 2007). Employee creativity and innovative work behavior are two different concepts. Innovative work behavior focusses on discovery, recognition, generation, development, modification, adaption and implementation of ideas (King & Anderson, 2002; Scott & Bruce, 1994) while creativity involved with novel, new and useful ideas (Scott & Bruce, 1994). According to Singh and Sarkar (2019) innovative work behavior means the employee's ability to find new ideas, promote them and to implement new ideas.

Innovative work behavior consists of three steps namely idea generation, idea promotion, and idea realization (Rahman, Osman-Gani, Momen, & Islam, 2015). Idea generation happens when employees produce new ideas, whereas idea promotion means finding supporters surrounding the ideas and idea realization involves producing a prototype, which can test by individuals or organizations (Rahman, Osman-Gani, Momen, & Islam, 2015). Moreover, De Jong and Den Hartog (2010) introduced another step as idea implementation that transform creative ideas into innovative ideas. There are many benefits of innovative work behavior including increasing work engagement, declining work-life conflicts (Abstein, Heidenreich, & Spieth, 2014), and increasing organizational effectiveness (Basadur, 2004). Most of the organizations use employee innovation ideas as building blocks to produce new products or services in their organizations (De Jong & Den Hartog, 2007).

Previous study findings have indicated employee innovative work behavior highly dependent on their relationship with their peers, subordinates, supervisors and the clients (Anderson, De Dreu, & Nijstad, 2004). Moreover, employees are able to enhance their business performance through their ability to create and translate their ideas to successful business outcomes (Pradhan & Jena, 2019). The importance of innovative work behavior of employees has encouraged researchers to examine the impact of different factors such as personality types, leadership styles, and working environment on innovative work behavior (Pelz & Andrews, 1966). Moreover, a plethora of studies revealed that there is a positive impact of transformational leadership on employee innovative behavior (Afsar, Badir, & Bin Saeed, 2014). Some scholars have examined the relationship between innovative work behavior and organizational resources (Spreitzer, 1995; Madjar, 2008), climate for innovation (Scott & Bruce, 1994), personality (George & Zhou, 2001), self-efficacy (Axtell, Holman, Unsworth, Wall, Waterson, & Harrington, 2000), problem solving skills (Scott & Bruce, 1994), transformational leadership (Masood & Afsar, 2017; Pieterse, Knippenberg, Schippers, & Stam, 2009). However, the review of literature highlighted that workplace spirituality is not sufficiently studied (Afsar & Rehman, 2015; Duchon & Plowman, 2005; Jurkiewicz & Giacalone, 2004). Even though there is a burgeoning interest on workplace spirituality (Kolodinsky, Giacalone, & Jurkiewicz, 2008; Pawar, 2009), little research has been carried out on the topic of workplace spirituality (Gatling et al., 2016; Pawar, 2014; Sheep, 2006). Hence, by developing a conceptual model and by statistically validating the model, researcher contribute to fill the gap of workplace spirituality literature to a certain extent.

3. Hypotheses of the Study

3.1 Workplace Spirituality and Innovative Work Behavior

Most of the prior research focused on the benefits of workplace spirituality (Quatro, 2004). It was found that workplace spirituality positively affects organizational performance (Quatro, 2002), profitability (Duchan & Plowman, 2005), organizational commitment (Fry, Vitucci, & Cedillo, 2005), job involvement and organizational based self-esteem (Milliman et al., 2003). According to Milliman et al. (2003), meaningful work is expected to be related to individual attitudes towards the organization. Employees exhibit creative behavior (Jung, Chow, & Wu, 2003), discretionary behavior such as innovative work behavior (Pierce, Gardner, Cummings, & Dunham, 1989), and they try to do changes in the work place accepting challenges (Afsar & Rehman, 2015) when they find meaning in work. Moreover, employees try to understand the problems in a way that is more rigorous and try to search for more solutions when they perceive that their work roles are important in the organization, (Gilson & Shalley, 2004). Besides, some other research posited that workplace spirituality assist achieving sense of purpose, encourage creativity, and in turn leads to motivate innovative work behavior (Pawar, 2009; Gupta et al. 2014; Afsar & Rehman 2015). Based on the above justification, hypothesis one (H_1) is

proposed:

H₁: Workplace spirituality has a significant positive effect on innovative work behavior.

3.2 Mediating Role of Intrinsic Motivation on the Relationship Between Workplace Spirituality and Innovative Work Behavior

Intrinsic motivation refers to the will and energy that leads to the behavior or the interest and the pleasure or satisfaction that employee gets when he/she engaged in an activity (Saeed et al., 2019). According to Saeed et al. intrinsic motivation affects employee's emotions, behavior, and cognition. Accordingly, it leads to enhance more stable and better performance. When an employee intrinsically attracts to an activity, he/she is focused on it and tries to do experiments with it and this leads to having more creative behavior (Jausi & Dionne, 2003). Intrinsic motivation is one of the components in the componential theory of creativity which leads to uplift the individual's creative behavior. Further, when employees try to find out the final meaning and the purpose of his/her work, it motivates employees to do differences within the working environment (Afsar & Rehman, 2015). The link between meaning at work [workplace spirituality] and intrinsic work motivation was established in very early research as well (Hackman & Oldham, 1976). Well-established self-determination theory also highlighted that employee freedom, competence, and relatedness in their work activities leads to intrinsic motivation (Ryan & Deci, 2000) When employees think their task as interesting and meaningful, they engage with it in a psychological freedom that enhance intrinsic motivation (Steger, Dik, & Duffy, 2012; Hackman & Oldham, 1976). Workplace spirituality leads to share power, trust and flexibility which leads to improve intrinsic motivation (Afsar, Badir, & Kiani, 2016; Chalofsky & Krishna, 2009). Based on the above justification, hypothesis two (H₂), hypothesis three (H₃), and hypothesis four (H₄) are proposed:

H₂: Workplace spirituality has a significant positive effect on intrinsic motivation.

H₃: Intrinsic motivation has a significant positive effect on innovative work behavior

H₄: When intrinsic motivation is high, workplace spirituality has a stronger effect on innovative work behavior.

4. Theoretical Framework

Based on the comprehensive review of literature, it was clear that there is an impact of workplace spirituality on innovative working behavior. When workplace spirituality level increases, the innovative working behavior also increases. In addition, workplace spirituality has an impact on intrinsic motivation and intrinsic motivation has an impact on innovative work behavior. Further, intrinsic motivation influences the relationship between workplace spirituality and innovative working behavior. Therefore, based on literature the conceptual model developed for the current study is given in Figure 1:

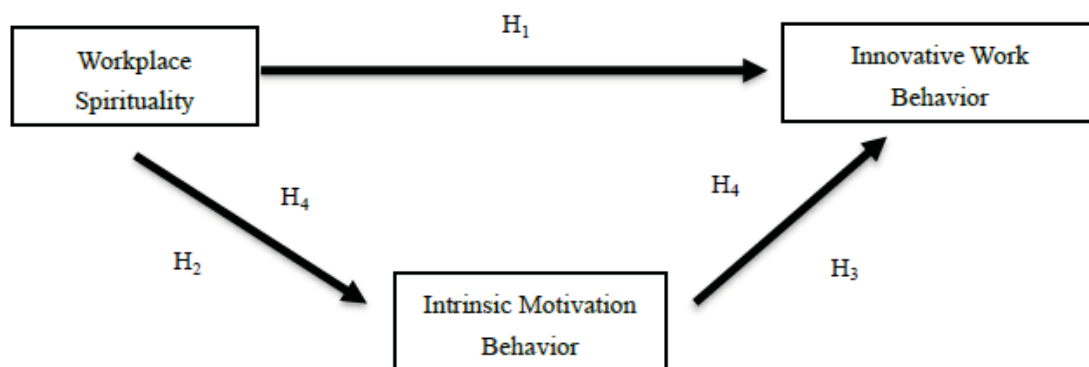


Figure 1. Conceptual model

5. Implications and Directions for Future Research

As the impact of workplace spirituality and innovative work behavior was not addressed to date, this study offers important implications to theory and practice. . It is very much important to identify the factors that foster innovative work behavior of employees as the human resource in an organization vary according to their culture, family and educational background (Afsar & Rehman, 2015). Thus, this study may assist to understand the drivers of innovative work behavior among employees through workplace spirituality and intrinsic motivation. Up until to date, most of the research on spirituality at work has focused at individual level. This study is

amongst the few studies that attempts to examine workplace spirituality at the organizational level on innovative work behavior of employees. The model developed in the current study considered only two factors; workplace spirituality and intrinsic motivation as the factors that promote innovative work behavior. Future research needs to be done to examine other factors that may have an impact on innovative work behavior.

6. Conclusion

The objective of this study was to develop and validate a theoretical model to understand the effect that workplace spirituality has on innovative work behavior and how intrinsic motivation influence the impact of workplace spirituality on innovative work behavior. It is theorized that when workplace spirituality is high in the organization, the innovative work behavior of employees tends to be high. Furthermore, literature argued that intrinsic motivation has an influence on the effect of workplace spirituality on innovative work behavior of employees. Thus, based on the literature the theoretical model was hypothesized. The model developed will be empirically tested in future research for its statistical validity.

References

- Abstein, A., Heidenreich, S., & Spieth, P. (2014). Innovative work behavior: The impact of comprehensive HR system perceptions and the role of work-life conflict. *Industry and Innovation*, 21(2), 91-116. <https://doi.org/10.1080/13662716.2014.896159>
- Afsar, B., & Rehman, M. (2015). The relationship between workplace spirituality and innovative work behavior: The mediating role of perceived person-organization fit. *Journal of Management, Spirituality & Religion*, 12(4), 329-353. <https://doi.org/10.1080/14766086.2015.1060515>
- Afsar, B., Badir, Y., & Kiani, U. (2016). Linking spiritual leadership and employee pro-environmental behavior: The influence of workplace spirituality, intrinsic motivation, and environmental passion. *Journal of Environmental Psychology*, 45, 79-88. <https://doi.org/10.1016/j.jenvp.2015.11.011>
- Afsar, B., F. Badir, Y., & Bin Saeed, B. (2014). Transformational leadership and innovative work behavior. *Industrial Management & Data Systems*, 114(8), 1270-1300. <https://doi.org/10.1108/imds-05-2014-0152>
- Ahiauazu, A., & Asawo S. P. (2012). Impact of clear and compelling vision on workers' commitment in Nigerian organizations: An examination of workplace spirituality. *Journal of Leadership, Accountability and Ethics*, 9(6), 113-124.
- Ahmad, A., & Omar, Z. (2014). Reducing deviant behavior through workplace spirituality and job satisfaction. *Asian Social Science*, 10(19). <https://doi.org/10.5539/ass.v10n19p107>
- Ahmadi, S., Nami, Y., & Barvarz, R. (2014). The relationship between spirituality in the workplace and organizational citizenship behavior. *Procedia - Social and Behavioral Sciences*, 114, 262-264. <https://doi.org/10.1016/j.sbspro.2013.12.695>
- Akram, T., Lei, S., & Haider, M. (2016). The impact of relational leadership on employee innovative work behavior in IT industry of China. *Arab Economic and Business Journal*, 11(2), 153-161. <https://doi.org/10.1016/j.aebj.2016.06.001>
- Amabile, T. (2012). *Componential Theory of Creativity* (Working Paper No.12-096). Retrieved from <http://hbswk.hbs.edu/>
- Amabile, T. (2013). Charismatic theory of leadership. *Encyclopedia of Management Theory*, 134-139. <https://doi.org/10.4135/9781452276090.n42>
- Anderson, N., De Dreu, C., & Nijstad, B. (2004). The routinization of innovation research: A constructively critical review of the state-of-the-science. *Journal of Organizational Behavior*, 25(2), 147-173. <https://doi.org/10.1002/job.236>
- Aravamudhan, N., & Krishnaveni, R. (2014). Spirituality at work: An emerging template for organization capacity building. *SMS Varanasi*, 7(1), 63-78.
- Ashmos, D., & Duchon, D. (2000). Spirituality at work. *Journal of Management Inquiry*, 9(2), 134-145. <https://doi.org/10.1177/105649260092008>
- Axtell, C., Holman, D., Unsworth, K., Wall, T., Waterson, P., & Harrington, E. (2000). Shop floor innovation: Facilitating the suggestion and implementation of ideas. *Journal of Occupational and Organizational Psychology*, 73(3), 265-285. <https://doi.org/10.1348/096317900167029>
- Basadur, M. (2004). Leading others to think innovatively together: Creative leadership. *The Leadership*

- Quarterly*, 15(1), 103-121. <https://doi.org/10.1016/j.leaqua.2003.12.007>
- Belwalkar, S., Vohra, V., & Pandey, A. (2018). The relationship between workplace spirituality, job satisfaction and organizational citizenship behaviors – an empirical study. *Social Responsibility Journal*, 14(2), 410-430. <https://doi.org/10.1108/srj-05-2016-0096>
- Brown, R. (2003). Organizational spirituality: The sceptic's version. *Organization*, 10(2), 393-400. <https://doi.org/10.1177/1350508403010002013>
- Burack, E. (1999). Spirituality in the workplace. *Journal of Organizational Change Management*, 12(4), 280-292. <https://doi.org/10.1108/09534819910282126>
- Chalofsky, N., & Krishna, V. (2009). Meaningfulness, commitment, and engagement: the intersection of a deeper level of intrinsic motivation. *Advances in Developing Human Resources*, 11(2), 189-203. <https://doi.org/10.1177/1523422309333147>
- Daniel, J. (2015). Workplace spirituality and stress: evidence from Mexico and US. *Management Research Review*, 38(1), 29-43. <https://doi.org/10.1108/mrr-07-2013-0169>
- De Jong, J., & Den Hartog, D. (2007). How leaders influence employees' innovative work behavior. *European Journal of Innovation Management*, 10(1), 41-64. <https://doi.org/10.1108/14601060710720546>
- De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behavior. *Creativity and Innovation Management*, 19(1), 23-36. <https://doi.org/10.1111/j.1467-8691.2010.00547.x>
- Duchon, D., & Plowman, D. (2005). Nurturing the spirit at work: Impact on work unit performance. *The Leadership Quarterly*, 16(5), 807-833. <https://doi.org/10.1016/j.leaqua.2005.07.008>
- Fagley, N., & Adler, M. (2012). Appreciation: A spiritual path to finding value and meaning in the workplace. *Journal of Management, Spirituality & Religion*, 9(2), 167-187. <https://doi.org/10.1080/14766086.2012.688621>
- Fairholm, G. (1996). Spiritual leadership: Fulfilling whole-self needs at work. *Leadership & Organization Development Journal*, 17(5), 11-17. <https://doi.org/10.1108/01437739610127469>
- Faro Albuquerque, I., Campos Cunha, R., Dias Martins, L., & Brito Sá, A. (2014). Primary health care services: workplace spirituality and organizational performance. *Journal of Organizational Change Management*, 27(1), 59-82. <https://doi.org/10.1108/jocm-11-2012-0186>
- Fry, L. (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, 14(6), 693-727. <https://doi.org/10.1016/j.leaqua.2003.09.001>
- Fry, L. W., & Matherly, L. L. (2006). *Spiritual leadership and organizational performance*. Paper Presented at the Academy of Management, Atlanta. Retrieved from <https://pdfs.semanticscholar.org/f354/43471925684026e5bedf3881c8b511e5b5ab.pdf>
- Fry, L., Vitucci, S., & Cedillo, M. (2005). Spiritual leadership and army transformation: Theory, measurement, and establishing a baseline. *The Leadership Quarterly*, 16(5), 835-862. <https://doi.org/10.1016/j.leaqua.2005.07.012>
- Gatling, A., Kim, J., & Milliman, J. (2016). The relationship between workplace spirituality and hospitality supervisors' work attitudes. *International Journal of Contemporary Hospitality Management*, 28(3), 471-489. <https://doi.org/10.1108/ijchm-08-2014-0404>
- George, J., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology*, 86(3), 513-524. <https://doi.org/10.1037//0021-9010.86.3.513>
- Giacalone, R., & Jurkiewicz, C. (2003). *The Handbook of Workplace Spirituality and Organizational Performance* (pp. 3-28). Armonk, NY: M.E. Sharpe.
- Gilson, L., & Shalley, C. (2004). A little creativity goes a long way: An examination of teams' engagement in creative processes. *Journal of Management*, 30(4), 453-470. <https://doi.org/10.1016/j.jm.2003.07.001>
- Gupta, M., Kumar, V., & Singh, M. (2014). Creating satisfied employees through workplace spirituality: A study of the private insurance sector in Punjab (India). *Journal of Business Ethics*, 122(1), 79-88. <https://doi.org/10.1007/s10551-013-1756-5>
- Hackman, J., & Oldham, G. (1976). Motivation through the design of work: test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250-279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)

- Harrington, W. (2004). *Worldwide resiliency of business degree graduate students: An examination of spiritual experiences and psychological attitudes. Association of employment practices and principals*. Retrieved from http://www.aepp.net/documents/aepp_proceedings_2004_final.pdf
- Hassan, M., Bin Nadeem, A., & Akhter, A. (2016). Impact of workplace spirituality on job satisfaction: Mediating effect of trust. *Cogent Business & Management*, 3(1). <https://doi.org/10.1080/23311975.2016.1189808>
- Hussain, A., & Sharma, M. (2012). Workplace spirituality and engagement among employees in public and private sector organization. *International Journal of Social and Allied Research*, 1(1), 5-9.
- Janfeshan, K., Panahy, B., Veiseh, S., & Kamari, F. (2011). Spirituality in the work place and its impacts on the efficiency of management. *2nd International Conference on Business and Economic Research (2nd ICBER 2011)*.
- Jaussi, K., & Dionne, S. (2003). Leading for creativity: The role of unconventional leader behavior. *The Leadership Quarterly*, 14(4-5), 475-498. [https://doi.org/10.1016/s1048-9843\(03\)00048-1](https://doi.org/10.1016/s1048-9843(03)00048-1)
- Jena, L., & Pradhan, S. (2018). Workplace persuasion: Conceptual model, development and validation. *Global Business Review*. <https://doi.org/10.1177/0972150918761086>
- Jung, D., Chow, C., & Wu, A. (2003). The role of transformational leadership in enhancing organizational innovation: Hypotheses and some preliminary findings. *The Leadership Quarterly*, 14(4-5), 525-544. [https://doi.org/10.1016/s1048-9843\(03\)00050-x](https://doi.org/10.1016/s1048-9843(03)00050-x)
- Jurkiewicz, C., & Giacalone, R. (2004). A values framework for measuring the impact of workplace spirituality on organizational performance. *Journal of Business Ethics*, 49(2), 129-142. <https://doi.org/10.1023/b:busi.0000015843.22195.b9>
- King, N., & Anderson, N. (2002). *Managing innovation and change: a critical guide for organizations*. Andover, UK: Cengage Learning EMEA.
- Kinjerski, V., & Skrypnik, B. (2004). Defining spirit at work: Finding common ground. *Journal of Organizational Change Management*, 17(1), 26-42. <https://doi.org/10.1108/09534810410511288>
- Kolodinsky, R., Giacalone, R., & Jurkiewicz, C. (2008). Workplace values and outcomes: Exploring personal, organizational, and interactive workplace spirituality. *Journal of Business Ethics*, 81(2), 465-480. <https://doi.org/10.1007/s10551-007-9507-0>
- Krahnke, K., Giacalone, R., & Jurkiewicz, C. (2003). Point-counterpoint: Measuring workplace spirituality. *Journal of Organizational Change Management*, 16(4), 396-405. <https://doi.org/10.1108/09534810310484154>
- Krishnakumar, S., & Neck, C. (2002). The “what”, “why” and “how” of spirituality in the workplace. *Journal of Managerial Psychology*, 17(3), 153-164. <https://doi.org/10.1108/02683940210423060>
- Lee, S., Lovelace, K., & Manz, C. (2014). Serving with spirit: An integrative model of workplace spirituality within service organizations. *Journal of Management, Spirituality & Religion*, 11(1), 45-64. <https://doi.org/10.1080/14766086.2013.801023>
- Legault, L. (2016). Intrinsic and Extrinsic motivation. *Encyclopedia of Personality and Individual Differences*, 1-4. https://doi.org/10.1007/978-3-319-28099-8_1139-1
- Madjar, N. (2008). Emotional and informational support from different sources and employee creativity. *Journal of Occupational and Organizational Psychology*, 81(1), 83-100. <https://doi.org/10.1348/096317907x202464>
- Masood, M., & Afsar, B. (2017). Transformational leadership and innovative work behavior among nursing staff. *Nursing Inquiry*, 24(4), e12188. <https://doi.org/10.1111/nin.12188>
- Mayfield, J., & Mayfield, M. (2004). The effects of leader communication on worker innovation. *American Business Review*, 6, 46-51.
- Milliman, J., Czaplewski, A., & Ferguson, J. (2003). Workplace spirituality and employee work attitudes. *Journal of Organizational Change Management*, 16(4), 426-447. <https://doi.org/10.1108/09534810310484172>
- Mitroff, I., & Denton, E. (1999). *A spiritual audit of corporate America: A hard look at spirituality, religion, and values in the workplace*. San Francisco, CA: Jossey-Bass.
- Mousa, M., & Alas, R. (2016). Workplace spirituality and organizational commitment: A study on the public

- schools teachers in Menoufia (Egypt). *African Journal of Business Management*, 10(10), 247-255. <https://doi.org/10.5897/ajbm2016.8031>
- Mydin, A., Kanesan, A., & Pitchay, A. (2018). Workplace spirituality enhance organizational commitment in the school management. *Asian Journal of Public Administration and Law, Asian Economic and Social Society*, 1(1), 1-8.
- Neck, C., & Milliman, J. (1994). Thought Self-leadership. *Journal of Managerial Psychology*, 9(6), 9-16. <https://doi.org/10.1108/02683949410070151>
- Oldham, G., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, 39(3), 607-634. <https://doi.org/10.2307/256657>
- Osman-Gani, A., Hashim, J., & Ismail, Y. (2013). Establishing linkages between religiosity and spirituality on employee performance. *Employee Relations*, 35(4), 360-376. <https://doi.org/10.1108/er-04-2012-0030>
- Otaye-Ebede, L., Shaffakat, S., & Foster, S. (2019). A multilevel model examining the relationships between workplace spirituality, ethical climate and outcomes: A social cognitive theory perspective. *Journal of Business Ethics*. <https://doi.org/10.1007/s10551-019-04133-8>
- Pandey, A., Gupta, R., & Arora, A. (2009). Spiritual climate of business organizations and its impact on customers' experience. *Journal of Business Ethics*, 88(2), 313-332. <https://doi.org/10.1007/s10551-008-9965-z>
- Pawar, B. (2009). Workplace spirituality facilitation: A comprehensive model. *Journal of Business Ethics*, 90(3), 375-386. <https://doi.org/10.1007/s10551-009-0047-7>
- Pawar, B. (2014). Leadership spiritual behaviors toward subordinates: an empirical examination of the effects of a leader's individual spirituality and organizational spirituality. *Journal of Business Ethics*, 122(3), 439-452. <https://doi.org/10.1007/s10551-013-1772-5>
- Pelz, D., & Andrews, F. (1996). *Scientists in organization: Productive climate for research and development*. New York: Wiley.
- Petchsawang, P., & Duchon, D. (2009). Measuring workplace spirituality in an Asian context. *Human Resource Development International*, 12(4), 459-468. <https://doi.org/10.1080/13678860903135912>
- Petchsawang, P., & McLean, G. (2017). Workplace spirituality, mindfulness meditation, and work engagement. *Journal of Management, Spirituality & Religion*, 14(3), 216-244. <https://doi.org/10.1080/14766086.2017.1291360>
- Pierce, J., Gardner, D., Cummings, L., & Dunham, R. (1989). Organization-based self-esteem: construct definition, measurement, and validation. *Academy of Management Journal*, 32(3), 622-648. <https://doi.org/10.2307/256437>
- Pieterse, A., van Knippenberg, D., Schippers, M., & Stam, D. (2009). Transformational and transactional leadership and innovative work behavior: The moderating role of psychological empowerment. *Journal of Organizational Behavior*, 31(4), 609-623. <https://doi.org/10.1002/job.650>
- Pourmola, M., Bagheri, M., Alinezhad, P., & Peyravi Nejad, Z. (2019). Investigating the impact of organizational spirituality on human resources productivity in manufacturing organizations. *Management Science Letters*, 121-132. <https://doi.org/10.5267/j.msl.2018.10.011>
- Pradhan, S., & Jena, L. (2019). Does meaningful work explains the relationship between transformational leadership and innovative work behavior. *Vikalpa: The Journal for Decision Makers*, 44(1), 30-40. <https://doi.org/10.1177/0256090919832434>
- Quatro, S. (2002). *Organizational spiritual normativity as an influence on organizational culture and performance in Fortune 500 firms*. Iowa State University Digital Repository.
- Quatro, S. (2004). New age or age old: Classical management theory and traditional organized religion as underpinnings of the contemporary organizational spirituality movement. *Human Resource Development Review*, 3(3), 228-249. <https://doi.org/10.1177/1534484304267830>
- Rahman, M., Osman-Gani, A., Momen, M., & Islam, N. (2015). Testing knowledge sharing effectiveness: Trust, motivation, leadership style, workplace spirituality and social network embedded model. *Management & Marketing*, 10(4), 284-303. <https://doi.org/10.1515/mmcks-2015-0019>
- Rego, A., & Pina e Cunha, M. (2008). Workplace spirituality and organizational commitment: an empirical study.

- Journal of Organizational Change Management*, 21(1), 53-75. <https://doi.org/10.1108/09534810810847039>
- Roof, R. (2015). The association of individual spirituality on employee engagement: The spirit at work. *Journal of Business Ethics*, 130(3), 585-599. <https://doi.org/10.1007/s10551-014-2246-0>
- Ryan, R., & Deci, E. (2000). Intrinsic and Extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54-67. <https://doi.org/10.1006/ceps.1999.1020>
- Saeed, B., Afsar, B., Shahjehan, A., & Shah, S. (2019). Does transformational leadership foster innovative work behavior? The roles of psychological empowerment, intrinsic motivation, and creative process engagement. *Economic Research*, 32(1), 254-281.
- Saks, A. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619. <https://doi.org/10.1108/02683940610690169>
- Saks, A. (2011). Workplace spirituality and employee engagement. *Journal of Management, Spirituality & Religion*, 8(4), 317-340. <https://doi.org/10.1080/14766086.2011.630170>
- Scott, S., & Bruce, R. (1994). Determinants of innovative work behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580-607. <https://doi.org/10.2307/256701>
- Sheep, M. (2006). Nurturing the whole person: The ethics of workplace spirituality in a society of organizations. *Journal of Business Ethics*, 66(4), 357-375. <https://doi.org/10.1007/s10551-006-0014-5>
- Singh, M., & Sarkar, A. (2019). Role of psychological empowerment in the relationship between structural empowerment and innovative work behavior. *Management Research Review*, 42(4), 521-538. <https://doi.org/10.1108/mrr-04-2018-0158>
- Singh, S., & Mishra, P. (2016). A review on role of spirituality at workplace. *The International Journal of Indian Psychology*, 3(3), 141-146.
- Spreitzer, G. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5), 1442-1465. <https://doi.org/10.5465/256865>
- Steger, M., Dik, B., & Duffy, R. (2012). Measuring meaningful work. *Journal of Career Assessment*, 20(3), 322-337. <https://doi.org/10.1177/1069072711436160>
- Tajeddini, K., & Trueman, M. (2008). The potential for innovativeness: A tale of the Swiss watch industry. *Journal of Marketing Management*, 24(1-2), 169-184. <https://doi.org/10.1362/026725708x273984>
- Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, 52(3), 591-620. <https://doi.org/10.1111/j.1744-6570.1999.tb00173.x>
- Urdan, T., & Maehr, M. (1995). Beyond a two-goal theory of motivation and achievement: A case for social goals. *Review of Educational Research*, 65(3), 213-243. <https://doi.org/10.3102/00346543065003213>
- Vinarski-Peretz, H., & Carmeli, A. (2011). Linking care felt to engagement in innovative work behaviors in the workplace: The mediating role of psychological conditions. *Psychology of Aesthetics, Creativity, and the Arts*, 5(1), 43-53. <https://doi.org/10.1037/a0018241>
- Weitz, E., Vardi, Y., & Setter, O. (2012). Spirituality and organizational misbehavior. *Journal of Management, Spirituality & Religion*, 9(3), 255-281. <https://doi.org/10.1080/14766086.2012.730782>
- Zhou, J., & George, J. (2003). Awakening employee creativity: The role of leader emotional intelligence. *The Leadership Quarterly*, 14(4-5), 545-568. [https://doi.org/10.1016/s1048-9843\(03\)00051-1](https://doi.org/10.1016/s1048-9843(03)00051-1)

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/>).

Tax Administration and Entrepreneurial Performance: A Study of SMEs in Uganda

Ismail Kintu¹, Faisal Buyinza² & Yusuf Kiwala¹

¹School of Business, College of Business and Management Sciences, Makerere University, Kampala

²School of Economics, College of Business and Management Sciences, Makerere University, Kampala

Correspondence: Ismail Kintu, School of Business, College of Business and Management Sciences, Makerere University, Kampala.

Received: June 28, 2019

Accepted: August 21, 2019

Online Published: November 8, 2019

doi:10.5539/ibr.v12n12p39

URL: <https://doi.org/10.5539/ibr.v12n12p39>

Abstract

Using the 2013 World Bank Enterprise Survey Data for Uganda, this paper employs the logit and quintile estimation technique to explain the relationship between tax administration and entrepreneurial performance among SMEs in Uganda. The study also employed interviews to obtain expert opinion about tax administration and also explain the results of logit models. Our results indicate that tax rate positively and significantly affect entrepreneurial performance, while tax administration has no effect on entrepreneurial performance. Other key factors that promote entrepreneurial performance include access to credit, firm age, male ownership, training and participation in exporting. Our results suggest that efforts to incentivize and set a conducive tax rate, ease of access to financing and training need to be strengthened for higher entrepreneurial performance among SMEs in Uganda.

Keywords: tax administration, SME performance, Uganda

1. Introduction

1.1 Problem Introduction

Tax administration is vital for economic performance in both government revenue collection and business performance (Godin & Hindriks, 2015; Kangave, Nakato, Waiswa & Zzimbe, 2016). Tax administration in Uganda has gradually improved from manual forms to electronic system where tax payers need to access tax information at their convenience and consult on tax matters 24 hours using the toll free line. Furthermore, URA opened up a number of fora for tax education and sensitization for instance; URA launched 'Ask URA' mobile application with Mobile Telephone Network Company (MTN), URA conducts workshops and seminars to vendors and landlords (Uganda Revenue Authority Annual Report, 2015/2016). The efforts are in the spirit of improving tax compliance with minimum cost to the tax payer. It can be argued that once the compliance cost in terms of efforts, time and monetary losses to SMEs are minimized, the resources saved may be utilized by SMEs for market penetration hence increased sales or financing working capital or any other SME activity.

Despite the fact that URA has endeavored to administratively simplify the tax system, the cost of compliance is still a problem to SMEs. Some SME entrepreneurs are illiterate, therefore, they need to hire tax consultants to help them file returns and interpret trade laws and regulations especially for custom purposes. Besides hiring tax consultants, the internet supply in Uganda is not reliable, or in other cases the cost of internet adds extra burden to SME operators. Furthermore, despite the numerous complaints made by traders about delayed administrative feedback (Kato, 2017) especially in clearing imports at various customs points, URA has not yet established a proper solution. In addition, taxes such as Value Added Tax (VAT) require filing monthly returns, this alone may be cumbersome to SMEs because of the costs of filing returns and the implications if the tax payer defaults. Therefore, there is high compliance encumbrance which tends to divert SMEs resources from entrepreneurial performance. It has not yet been established in Uganda's context whether the wasted time (delayed feedback and delay in understanding customs regulations and procedures) and money while endeavoring to comply for tax can impact on SME innovations, working capital, sales volume and market share. In other words, it is not yet clear whether tax administration can be an obstacle to SMEs' performance in Uganda, and to what extent it can be. However, in South Africa's construction industry, a study by Matarirano, Chiloane-Tsoke and Makina (2019)

established that, while internal tax compliance costs (such as; employing extra personnel to handle filing of returns, time and procedure to understanding the compliance procedure and issuing of invoices) are positive and significantly related to firm performance, the external tax compliance costs (such as; hiring professional accounting firms, clearing agents and buying internet services) are negative and significantly related to firm performance. And, whereas the Matarirano et al; (2019) study was about the construction sector, the World Bank Enterprise survey (2013) where secondary data was obtained for analysis was not limited in scope. The survey considered both manufacturing and service sector firms in Uganda.

This study set out to investigate the relationship between tax administration (as an obstacle or not obstacle) and tax rates on firm performance taking into consideration other firm and entrepreneurial characteristics and the business environment. The firm performance measures were discussed by Yu (2013) and Bosma, Van Praag and Wit (2002). The same measures were tested in Uganda's informal economy by Kintu (2017).

Despite the improvements made by URA to ensure convenient and cost effective tax administration, there are still aspects of delayed decision making by revenue officers and bureaucratic tendencies (Kato, 2017). These tax administrative challenges may affect performance of SMEs in terms of time wastage or cash flow stagnation in case a decision requires monetary compensation or release of trader's goods for the market. This may impact on entrepreneurial performance. Moreover, there is relative research paucity about tax administration and entrepreneurial performance in Uganda's SME sector. The study by Dabla-Norris, Misch, Cleary, and Khwaja (2017) was not country specific.

The objective of this study was to establish the effect of tax administration and selected firm and owners' characteristics on firm performance in Uganda using the World Bank Enterprise Survey data. From the reviewed studies, it implies that there is need to understand the importance of tax compliance cost on SMEs' performance. This has policy implication regarding tax administration and tax rates for firm performance. In addition, the study contributes to literature since there is literature dearth about tax administration and tax rates on firm performance in Uganda.

Section 1.2 reviews the selected literature. The data and empirical strategy are described in section 2. Section 3 presents empirical findings and section 4 discusses the study findings, while section 5 presents the concluding remarks.

1.2 Literature

Uganda has structured business licensing to facilitate business start-ups. The Uganda Investment Authority was formed to ensure that all investors operate legally within Uganda. Furthermore, different sectors have unique laws governing licensing in those sectors. For instance, financial institutions are governed by the Financial Institutions Act (2004) with its subsequent amendments. In the same way, the mining sector is regulated by the Uganda Mining Act (2003). In addition, to facilitate an easy registration of patents and business undertakings, Uganda Registration Services Bureau (URBS) was formed by an Act of parliament in 1998. The URBS is responsible for civil registration, business registration, patents, intellectual property rights and other activities as required by law.

Besides registration, taxation and customs laws and regulations are in place. For instance, the Value Added Tax Act (1996) streamlines the operations of VAT domestically and at customs, the East African Customs Management Act (2004) together with the East African Customs Management (Amendment) Bill (2015) streamline the operations of customs activities at all East African border points. In addition, the Common External Tariff (CET) was established to guide on all duties for commodities imported from outside the East African Community. It is imperative to know that today, under the Tax Payer Registration Expansion Program (TREP), Small and Medium Size Enterprises (SMEs) are required to register for both business licensing and tax at one point. This implies that all SMEs leave the registration point with both the business operational license and the Tax Identification Number (TIN).

It is argued that, World over, formality is not a major goal for SMEs. They focus on expanding sales. Whereas tax and local authorities want SMEs to be registered and formalize their operations in order to collect tax revenue, SMEs want to remain informal to avoid paying taxes. It has been observed in Lima that obtaining a trading license does not guarantee increase in firm revenue (Alcazar, Andrade & Jaramillo, 2010). Therefore, SMEs find no urgency in formalization. Moreover, obtaining a license involves costs in terms of monetary payments to local authorities and wasted time. Furthermore, trade is hampered by inconsistent collection of duties which influences traders to issue bribes to customs officials (United States Country Commercial Guides, 2017). Although the government of Uganda through Uganda Investment Authority (UIA) introduced one-stop-center for registering businesses, the business registration period is an average of twenty six days (World

Bank, 2016). This is still a long period of time. The United Nations Doing Business report (2017) indicates that the efficiency and quality of regulatory framework in Sub-Saharan Africa is still low at 56.5% and 36.7% on the Distance to Frontier (DTF) score. Therefore, the tax administrative system may be bypassed with irregular payments to favor some business operators at expense of others.

In addition, another conundrum originates from unrealistic tax rates. The high tax rates may also induce irregular payments because people feel that to survive in business, pay irregularly at below the rates. Furthermore, it can be argued that the tax rates imposed can hinder firm performance, for instance, the excise duty imposed on items can increase the selling price of an item, which may reduce the sales volume. The empirical findings of Gatsi, Gadzo and Kportorgbi, (2013) among Ghanaian manufacturing firms indicate that whenever tax burden increases, the firm's financial performance declines. Thus, whenever tax rates especially under the indirect tax regimes increase, there is expected reduction in firm clientele and sales hence more pressure on firm cash flows. Furthermore, in Malaysia, the Goods and Services Tax (GST) have slowed down the sales of the shipbuilding and ship repairing business (Sim, 2019).

Whereas tax/duty collection and business registration has been made easy through online platforms (online filing of returns and online business registration), business community is complaining about bribery and irregular payments (World Economic Forum, 2017). Moreover, public servants are corrupt (Enterprise Survey Uganda, 2013), this is coupled with bureaucratic hurdles which hamper efficiency (Investment Climate Statement, 2017; United States Commercial Guides, 2017).

It is based on the bribery, bureaucratic, high tax rates and inefficient ways of operation that the authors envisage that tax administration, tax rates and business licensing can hinder firm performance. Furthermore, delays in obtaining information wastes traders productive time, slows decision making in business hence low productivity and performance. For instance, innovation time is wasted, cash is used for bribes instead of funding the firm's liquid requirements.

Uganda like any other East African state has structured the customs procedures following the East African customs protocol. Before the protocol, each member state was following her own customs procedures. However, today, the common customs laws to all East African customs points were introduced. Laws such as; the East African Customs Management Act (2004) together with the East African Customs Management (Amendment) Bill (2015) regulate customs business at all East African border points. In addition, the Uganda National Bureau of Standard regulations (2015) are provided to guide the inspection of imports and exports to ensure compliance with international standards and to confirm the quality of imports. The Uganda National Bureau of Standards introduced a Pre-Export Verification of Conformity (PVoC) following the World Trade Organisation's notification requirements and the Technical Barriers to Trade (TBT) article 5. The PVoC requires that all goods imported to Uganda are inspected for quality in the country of Origin. However, the clearance requirement challenges traders since they buy and import merchandise from open market rather than manufacturers (Musoke, 2012).

Furthermore, to ensure that customs regulations are implemented in a proper and efficient manner, new technology such as single customs territory has been introduced. The single customs territory enables traders to comply with customs procedures, and pay customs taxes at one entry point within a maximum of two days (World Bank, 2017; Nakaweesi, 2018). In addition, United Nations Doing Business report (2017) indicates that URA introduced one-stop center at Malaba in effort to expedite customs clearing processes. On top of these initiatives is the ASYCUDA World, the technology which is an enabler of efficient customs clearance process. Although the regulatory framework and technology has facilitated the reduction in hindrances at customs entry points, for instance, reduced time for customs processes and reduced time for client contact with the customs officers, the systems can only operate on internet. It is not prudent to assume that every place in Uganda has stable internet.

Important to state, most people in business community are not conversant with the customs regulations. They survive at the mercy of clearing agents who sometimes may not offer satisfactory advice, hence tax disputes between URA and the tax payer. It is also important to understand that although Uganda has a clear mechanism to address tax disputes between tax payers and URA provided in the Tax Procedure Code Act (2014), Uganda's commercial court is perceived to favor politically connected firms where such firms induce bribes to judges to delay cases or rule in their favor (United States Country Commercial Guides, 2017). In addition, the World Economic Forum (2016) indicates that border administration in Uganda is not transparent, has a lot of irregular payments and the clearance process is inefficient. Moreover, the main problem facing tax authorities in African countries in tax administration is corruption (Dube, 2014).

The operations at customs guided by the customs regulations have led to significant improvement in efficiency at customs entry and exit points. Bogachkova, Usachyova and Usachyov (2019) argue that, a well simplified system of tax reporting of entrepreneurs improves SMEs business activities. However, there numerous challenges such as; the inadequate awareness of the regulations by business community, yet, tax awareness is positive and significantly related to tax compliance (Omondi & Theuri, 2019). Unstable internet services, delays caused by customs officers and delays caused by disputes between URA and tax payers. The delays and impromptu bribes affect business performance. It can be argued that if time is lost at customs point, importers' sales will drop. It can further be argued that bribes, extra charges and time wastage during the appeal procedure can be a hindrance to firm sales, profitability or working capital.

2. Methodology and Data

2.1 Methodology

To establish the effect of tax administration and tax rates on SMEs' performance, the logit model was estimated. After obtaining results of the logit model, interviews were conducted to explain specifically; how tax administration affect the sales of a firm? How tax rates affect the sales of a firm? And how importers perceive the customs procedures at Uganda borders? This is sequential explanatory research approach. The mixed methods ensure triangulation of methodologies (Johnson & Onwuegbuzie, 2004).

Besides tax administration, other factors which can affect performance are; operating expenses such as rent, salaries, financial charges and utilities. The effect of tax administration on selected firm and industrial characteristics on SMEs' performance are examined by estimating the following model:

$$Perm_i = \alpha_0 + \alpha_1 Taxad_i + \alpha_2 Firm_i + \alpha_3 Industry_i + \alpha_4 Owner_i + \varepsilon_i \quad (1)$$

From Equation 1, $Perm_i$ denotes firm performance. For this study, firm performance is measured by working capital, cumulative employment and sales volume. $Taxad$ denotes tax administration, which is binary and is coded as '1' if tax administration has no effect and '0' if otherwise. $Firm$ denotes firm characteristics which include firm size and firm age. Industrial factors include; firm location and type of business. $Owner$ denotes whether firm owner is male or female and ε is the normally distributed error term.

For qualitative interviews, purposive sampling was employed to select the customs officers and customs agents who are engaged in customs business. SME managers were included because they import goods and services. The interviews intended to explain the results obtained from the quantitative logit modelling. The sample size is twenty respondents and this is considered adequate (Creswell, 2013). The customs boarder points considered for the study are: Busia and Malaba in Eastern Uganda and Mutukula in Southern Uganda. The choice of these entry points is for their being busy with clearing imports.

Before conducting interviews, interviewees' consent was sought and each interview took a maximum of twenty minutes. The interviewers also assured the respondents that they were not under any threat.

Whereas the quantitative data was obtained from World Bank Enterprise survey for Uganda (2013) thus requiring no validity and reliability tests, an interview guide was subjected to peer review and debriefing, ensuring adequate sample size, transparency and credibility in handling data. Finally analysis for qualitative interviews was conducted through coding and creating themes.

2.2 Data Description

This study uses the 2013 WBES data for Uganda which was collected between January and August 2013. The survey employed stratified random sampling technique so as to: 1) get rid of biased estimates for the entire population; 2) get rid of biased estimates for different subdivisions of the population with a given degree of informed precision; 3) ensure that different sectors are well represented in the final sample; and 4) benefit from the precision associated with population estimates in stratified sampling as opposed to simple random sampling among others. The survey was based on a sampling frame obtained from Uganda Bureau of Statistics. In terms of stratification, the survey employed three levels of stratification that is region, size and industry. Specifically, in terms of the region, the survey was undertaken in Jinja (central Eastern Uganda), Kampala (City found in central Uganda), Lira (Northern Uganda), Mbale (Eastern Uganda), Mbarara (Western Uganda) and Wakiso (Central Uganda). In terms of size, the survey covered small, medium and large enterprises. Small enterprises comprised of firms with 5 to 19 employees, medium enterprises compromised of firms with 20 to 99 employees while large firms had 100+ employees. The data was collected from only formal (registered) companies with 5 or more employees.

With regard to our study, we have a sample of 698 SMEs of which, 324 SMEs were surveyed in the manufacturing sector which included food, textiles, garments, tobacco, leather, wood, paper, publishing, printing, and recorded media, refined petroleum products, chemicals, plastics and rubber, non-metallic mineral products, basic metals, fabricated metal products, machinery and equipment, electronics, precision instruments, transport machines, furniture and recycling.

The key study variables used in the empirical analysis include firm age. Unlike other study Pervan, Pervan and Curak (2017) in Croatia food industry indicates that firm age has a significant negative relationship with firm performance. This study only examined the linear effect of age on firm performance. Furthermore, Coad, Daunnfeldt and Halvarsson (2017) established that new firms strive to grow in sales level, however, after some few years, growth loses momentum. However, the current study takes into account the nonlinear effect of age on firm performance.

Also, the study employs firm size following Perez-Quiros and Timmerman (2000) who contend that small firms have a lower return on stocks during recession compared to large firms. This implies that small firms face more liquidity problems compared to large firms. Furthermore, Carpenter and Petersen (2002) in the study of 'is the growth of small firms constrained by internal financing?' concluded that the growth of small firms is constrained by internal financing. Implying that whenever small firms have constraints in liquidity, sales, market share, and assets level can be low.

In addition, this study employs firm location to examine firm performance following Holmes (1999) who argues that firms that locate in places of high population growth experience increased local production. He concluded that as population increases, a set of goods expand. Firms tend to locate where tax rates are lower compared to places of higher tax rates. This is basically because some tax rates affect business cash flows for instance excise duty. Fossen and Steiner (2014) established that the variation in elasticity of local business tax among Germany municipalities is -0.45.

Gender of the owner is also used to examine firm performance following Coleman (2007). Women owned firms find it difficult to secure external capital which humpers their business growth compared to men (Coleman, 2007). De Mel, McKenzie and Woodruff (2009) established that men invest both the small and large grants while women only invest large grants. Men can earn more return by 6.5-14% while women do not get a return (De Mel et al., 2009).

3. Results

Table 1 provides the summary statistics for the key selected study variables. Firm performance is measured as a firm's total annual sales in the fiscal year prior to the survey divided by the number of permanent full time employees at the firm in the fiscal year prior to the survey. The mean sales is UGX 6,330 million. The minimum and maximum firm sales is UGX 400,000 and UGX 9, 7000 million respectively. Firm age defines the number of years a firm has been in existence. The mean age of the firms is 15 years to suggest that on average many of the firms are mid-aged. The youngest and oldest firm is 2 and 87 years old respectively. On average 31 percent of firms are managed by female managers. Export measures a firm's export status and it takes a value of '1' if a firm exports otherwise '0'. On average 8 percent of firms engage in exports. Use of website and emails for business were coded as '1' and '0' otherwise. On average 18 percent of firms have own websites and 39 percent use email for business. On average 88 percent of firms are domestically owned, 4 percent are jointly owned, while 8 percent are foreign owned.

Table 1. Summary statistics for the study variable

Variable	N	Mean	Sd	Cv	Min	Max
Firm sales	460	6.33E+09	5.1E+10	8.06	400000	9.75E+11
Female owner	689	0.31	0.46	1.48	0	1
Years of experience	670	13.37	8.21	0.61	1	41
Firm age	646	15.17	9.9	0.65	2	87
Exporter	698	0.08	0.27	3.36	0	1
Domestic ownership	695	0.88	0.33	0.38	0	1
Joint ownership	695	0.04	0.2	4.88	0	1
Foreign ownership	695	0.08	0.28	3.32	0	1
Access to credit	606	0.61	0.49	0.8	0	1
Medium firm	698	0.33	0.47	1.43	0	1
Use website	692	0.21	0.41	1.96	0	1
Use email	691	0.39	0.49	1.25	0	1
Tax rate	693	0.61	0.49	0.8	0	1
Tax admin	696	0.56	0.5	0.88	0	1
Customs	686	0.46	0.5	1.08	0	1
Training	693	0.7	0.46	0.66	0	1
Ltd company	679	0.08	0.27	3.44	0	1
Sole proprietor	679	0.68	0.47	0.68	0	1
Partnership	679	0.24	0.43	1.78	0	1
Licensed business	696	0.49	0.5	1.01	0	1
Registered at startup	666	0.6	0.49	0.81	0	1
Working capital	662	5.91	13.82	2.34	0	100

Source: Authors' tabulation from WBES (2013)

Table 2 presents the mean difference analysis for the study variables to explore the difference between male and female owned firms. It can be observed that age, access to credit and source of financing are key factors that differentiate between male and female owned firms.

Table 2. Summary statistics for differences between male and female firm owners

Variables	G1(0)	Mean1	99%***, 95%***, 90%*CI		
			G2(Yes)	Mean2	Mean Diff
Firm sales	301	8.200e+09	154	2.700e+09	5.500e+09
Male owner	457	13.02	207	14.13	-1.102
Years of experience	434	14.51	203	16.37	-1.867**
Firm age	473	0.0820	216	0.0740	0.00800
Domestic ownership	471	0.877	216	0.894	-0.0170
Joint ownership	471	0.0280	216	0.0560	-0.028*
Foreign ownership	471	0.0960	216	0.0510	0.045**
Access to credit	413	0.579	187	0.679	-0.100**
Medium firm	473	0.334	216	0.306	0.0280
Use website	469	0.179	215	0.251	-0.072**
Use email	469	0.341	213	0.484	-0.142***
Tax rate	469	0.597	215	0.651	-0.0540
Tax admin	472	0.544	215	0.614	-0.069*
Customs	464	0.459	213	0.460	-0.00100
Training	471	0.724	213	0.667	0.0570
Ltd company	461	0.0560	212	0.118	-0.062***
Sole proprietor	461	0.748	212	0.557	0.192***
Partnership	461	0.195	212	0.325	-0.130***
Licensed business	472	0.479	216	0.528	-0.0490
Registered at startup	450	0.609	207	0.580	0.0290
Working capital	453	5.113	204	7.838	-2.726**

Source: Authors' tabulation from WBES (2013)

3.1 Empirical Results

From Table 3 while this article provides better understanding of the effect of tax administration taking into account tax rate on SME performance in Uganda (Model 1 and 2), for the 25th percentile (low performance firms) and 75th percentile. Note, that the 50th percentile results are equivalent to the OLS results (Model 1). Therefore, the effect of tax administration on firm performance is examined taking into account firm and business

environment characteristics. The use of quintile analysis in this article is to enable us to understand whether the relationship between tax administration and firm performance is uniform across different quintiles; as the sales of firms varies significant despite being the same size.

Table 3. Estimated impact of tax administration on firm performance

Variables	Model 1 OLS (0.5)	99%***, 95%** , 90%*CI	
		Model 2 0.25	Model 3 0.75
Tax administration not an obstacle	0.201 (0.180)	0.094 (0.531)	-0.311 (0.102)
Tax rate not an obstacle	0.016* (0.077)	0.028* (0.054)	0.507*** (0.008)
Male owner	0.094 (0.555)	0.039 (0.806)	0.208 (0.289)
Firm age	0.033 (0.293)	0.153*** (0.000)	0.103*** (0.008)
Firm age squared	-0.037 (0.657)	-0.456*** (0.000)	-0.185* (0.081)
Exporter	0.759** (0.011)	1.054*** (0.001)	0.389 (0.293)
Firm ownership (RC: Domestic)			
Both domestic and foreign	0.292 (0.455)	0.315 (0.413)	-0.143 (0.765)
Foreign ownership	1.576*** (0.000)	1.034*** (0.001)	0.705* (0.060)
Access to credit	0.165 (0.274)	0.044 (0.768)	0.498*** (0.007)
Medium firms	0.972*** (0.000)	0.480*** (0.004)	0.378* (0.069)
Firm uses website	0.666*** (0.003)	1.248*** (0.000)	1.172*** (0.000)
Firm uses email	0.492*** (0.009)	0.533*** (0.004)	0.600*** (0.009)
Customs	0.095 (0.525)	0.212 (0.153)	-0.128 (0.486)
Training	-0.441*** (0.007)	-0.358** (0.026)	-0.412** (0.039)
Firm legal status (RC: LTD Company)			
Sole proprietor	-1.030*** (0.000)	-0.704*** (0.006)	-1.583*** (0.000)
Partnership	-0.086 (0.752)	-0.238 (0.376)	-0.111 (0.740)
Business licensed	-0.185 (0.215)	-0.291** (0.048)	-0.211 (0.248)
Constant	18.20*** (0.000)	16.40*** (0.000)	19.32*** (0.000)
Observations	369	367	367
R-squared	0.180	0.139	0.208

Besides the quantitative modeling, qualitative interviews were conducted and data analysed for the purpose of explaining the quantitative results in table 3. The response rate was 95% and obtained from customs officers, customs agents and business community. The data was carefully edited, cleaned and well coded.

4. Discussion of Findings

The descriptive statistics from Table 1 indicate that on average, 18% of firms use websites and 39% of firms use emails. This implies that all other firms find difficulties in communicating with URA since URA commonly uses emails in effecting communication with the tax payers. Besides, firms which do not use emails and websites find it difficult to access relevant information on URA website. The findings further imply that many firms in Uganda may not be having internet connection. This negatively affects the timely delivery of information from URA.

In addition, from Table 3 model 1, tax administration is positive and insignificantly related to firm performance in the 0.25 and 0.5 quintiles. This is to say, tax administration procedures are not much of an obstacle to firm sales. However, in the 0.75 quintile, the relationship between tax administration and firm performance is

negative and insignificant. Implying that tax administration procedures mildly obstruct firm sales as level of sales increases. The findings concur with, Akinboade (2014) who established that bribes to tax regulators negatively impact on business trading volumes. Furthermore, the study findings concur with Dabla-Norris et. al, (2017) who established that a sturdier tax administration has a positive effect on productivity of small and young firms. Also, the corruption which is in African tax administration bodies cited by Dube (2014) does not affect firm performance. Although Uganda Revenue Authority (URA) has a research unit, some traders are of a view that the research component is lacking thus impacting on tax administration component of the revenue authority. For instance, respondent 4 operating a motor spare shop asserts, 'tax officials do not conduct enough research before a decision is made. So they end up making a lot of mistakes that impact on our sales. Sales revenue differ among importers because of difference in tax rates charged to them'.

Despite the fact that URA has improved the tax administration system by providing information on its website and printing tax education materials, some business people still believe that the system is not transparent enough. For instance; respondent 6, operating a hardware store asserts, 'tax policies and tax rates especially on consumables are not clear, so we charged taxes we don't understand as traders, we push the burden to consumers which affects our sales'. The responses from interviewees 7,9,10 and 11 concur with interviewee 6 that tax administration procedures are not effective enough. Also, tax administration procedures frequently change, so traders are always not comfortable with the system.

The study findings indicate that tax rates are positive and significantly related to firm performance. This implies that tax rates are not an obstacle to firm performance. The effect is much higher at 0.75 quintile. The higher the level of sales, the lesser the tax rates become an obstacle. This is to concur with Mawejje and Sebudde (2018) who did not find significant relationship between taxation and firm performance.

To concur with results in table 3, it was observed that a firm that sells goods where government regulations or policy mandates everyone to consume its products, the firm's sales may not be affected by increase in tax rates or sales can be directly proportional to tax rates. This is adduced by respondent 7, a firm transacting in motor cycle spares and 14 who avows, "If tax on imports increase, prices on the final product will increase. However, for firms importing helmets, their sales may not be affected by increase in tax rates or sales may increase since its government policy that everyone riding must wear helmets'.

Contrary to the findings in table 3 above, respondent 5, an importer of new clothes, respondent 8, selling computers and office equipment, respondent 11 who transacts second hand clothes and respondent 12 who transacts in mobile telephone accessories, observe, 'higher tax rates increases prices and leads to reduction in business sales. This is because, consumers have less amount to spend'. But, the difference in argument is created by government interference in some of the sectors.

Furthermore, the study's findings are in agreement with Alcazar et. al, (2010) who assert that business licensing does not guarantee increased revenue. At the lowest level of sales, the 0.25 quintile, business licensing significantly reduces firm sales. This is an indicator that firms may choose to remain informal, after all, an authority's license does not translate in more revenue. Results also indicate that the relationship between customs and trade regulations and firm sales is insignificant. Implying that customs and trade regulations are not much of an obstacle to firms' performance in Uganda.

The responses obtained indicate, however, that importers do not fully understand the customs procedures and regulations. For instance, respondents 16 and 18 said, 'customs officers are not transparent, they do not easily define taxes payable by importers at entry point'. Some importers have bad experience with customs officers for instance, respondent 12 avows that customs officers are too arrogant to give important information about customs procedures. The negative remarks are made despite the fact that respondent 1, a customs agent and respondent 19, a customs officer at Malaba emphasise that they explain the procedures to importers. Illiteracy was also pointed out by respondent 5 as a factor which hinders business community to understand the customs procedures. Eventually, a simple process becomes a time wasting event. The experience at customs point indicates the weakness in tax awareness process. It must be understood that a good tax awareness system improves tax compliance (Omondi & Theuri, 2019).

The study findings imply that, the time wastage, costs for delayed decisions and tax compliance costs as a result of inefficiencies in Uganda's tax administration does not entirely affect firm sales. Although the quality of tax regulatory framework in Sub-Saharan Africa is below the Distance to Frontier Score (Nations Doing Business report, 2017), findings indicate that this position does not entirely affect firm sales. This position is similar to that of Matarirano et al; (2019) in South Africa who established that internal tax compliance costs are positive and significantly related to firm performance.

Furthermore, the results in table 3 indicate a significant positive relationship between tax rates and firm sales. The study findings differ from that of Gatsi et, al; (2013), who established that when tax burden increases, the firm's financial performance declines. The bureaucratic huddles are cited in Uganda's tax administration system (Investment Climate Statement, 2017; United States Commercial guides, 2017), however, this does not inversely affect firm sales. The study findings also show that the inability for tax payers to understand customs and trade regulations is not an obstacle to firm sales.

5. Conclusion

This article examine the impact of tax administration on SMEs performance in Uganda taking into account the entrepreneur's characteristics and business environment using data drawn from World Bank Enterprise Survey for Uganda (2013). The qualitative interviews were conducted for the purpose of explaining the numeric from the logit model. The analysis employs both descriptive and estimation of quintile regression model. The results reveal that tax administration is not an obstacle to SME performance but the results are insignificant. Tax rates are not an obstacle to SMEs performance and the results are significant. Also, access to credit is significant in the 0.75 quintile, training has a significant inverse relationship with SMEs performance, male ownership is insignificant at all levels and age of the firm significantly increases SMEs' performance at the .25 and .75 quintiles. Other household and business environmental factors that are associated with low SME performance include legal status of the firm and domestic ownership. The study findings suggest that other factors perhaps significantly contribute to the poor performance of SMEs in Uganda but not necessarily tax rates and tax administration procedures.

The findings suggest that efforts for financial access interventions, such as promoting credit guarantee for SMEs with formal financial institutions, can have a substantial impact on SME performance. Of course, not every SME can apply for credit due to unfavorable business environment and entrepreneurs' objectives. Such constraints should be taken into account when formulating policy, targeting financial access interventions in both rural and urban areas where there is difference in access to formal financial institutions. In addition, there is need for raising awareness of the advantages of tax administration on SMEs and the benefits of staying away from informal business practices, particularly the young SMEs which always operate with no formal business licenses should be encouraged to register their businesses. Behavioral change interventions are nevertheless no substantial panacea and should be complemented by promotion and providing tax training to the entrepreneurs in the country. In the meantime, policy effort should concentrate on promoting tax compliance behavioral strategies and promoting business licensing, with the extreme case of eliminating informal businesses that are hard to tax. Thus, the combination of strategies targeting tax administration and access to credit are a promising path for policy makers.

6. Study Contribution

Whereas Dabla-Norris, Misch, Cleary, and Khwaja (2017) employed difference in difference in case of small firms and difference in difference in case of young firms, this study used logit and quintile estimation techniques to arrive at results. By way of literature, the higher the level of sales, the lesser an obstacle tax rates become to SMEs.

Acknowledgement

The authors wish to express their gratitude to Makerere University and SIDA for providing the necessary support and resources to facilitate the completion of this research.

References

- Akinboade, A. O. (2014). Regulation, SMEs' growth and performance in Cameroon's central and littoral provinces' manufacturing and retail sectors. *African Development Review*, 26(4), 597-609. <https://doi.org/10.1111/1467-8268.12116>
- Alcazar, L., Andrade, R., & Jaramillo, M. (2010). Panel/tracer study on the impact of business facilitation processes on enterprises and identification of priorities for future business enabling environment projects in Lima, Peru – Report 5: impact evaluation after the third round. *Report of the International Finance Corporation*. World Bank Group, Washington, Dc, Processed.
- Bogachkova, L. Y., Usachyova, N. Y., & Usachyov, A. A. (2019). *Increasing business activity of Russian SMEs: problems and solutions illustrated with the example of Volgograd region*. Paper presented at the Second International Scientific Conference on 'Competitive, Sustainable and Safe Development of Regional Economy', Atlantic Press. <https://doi.org/10.2991/cssdre-19.2019.127>

- Bosma, N., Van Praag, M., & Wit, G. (2002). *Entrepreneurial venture performance and initial capital constraints: an empirical analysis*. Netherlands, Zoetermeer (Business & policy research). Retrieved January 25, 2018, from www.eim.nl/smes-and-entrepreneurship/
- Carpenter, E. R., & Petersen, B. C. (2002). Is the growth of small firms constrained by internal financing? *The review of Economics and Statistics*, 84(2), 298-309. <https://doi.org/10.1162/003465302317411541>
- Coad, A., Daunfeldt, S. O., & Halvarsson, D. (2017). Bursting into life: Firm growth and growth persistence by age. *Journal of Small Business Economics*, 50(1), 55-75. <https://doi.org/10.1007/s11187-017-9872-8>
- Coleman, S. (2007). The role of human capital and financial capital in the profitability and growth of women-owned small firms. *Journal of Small Business Management*, 45(3), 303-319. <https://doi.org/10.1111/j.1540-627X.2007.00214.x>
- Creswell, J. W. (2013). *Qualitative inquiry and research design choosing among five approaches* (3rd ed.). New Dehli. Sage.
- Dabla-Norris, E., Misch, F., Cleary, D., & Khwaja, M. (2017). Tax administration and firm performance: New data and evidence for emerging market and developing economies. *International Monetary Fund working paper*, (WP/17/95). <https://doi.org/10.5089/9781475595147.001>
- De Mel, S., McKenzie, D., & Woodruff, C. (2009). Are women more credit constrained? Experimental evidence on Gender and Microenterprise returns. *American Economic Journal of Applied Economics*, 1(3), 1-32. <https://doi.org/10.1257/app.1.3.1>
- Dube, G. (2014). Informal sector tax administration in Zimbabwe. *Journal of Public Administration and Development*, 34(2014), 48-62. <https://doi.org/10.1002/pad.1673>
- Ecuru, J., & Kawooya, D. (2015). *Effective innovation policies for development: Uganda*. Retrieved January 18, 2018, from http://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2015-chapter11.pdf
- Fossen, F. M., & Steiner, V. (2014). The tax rate elasticity and business profit. *Diskussionsbeiträge*, 28. University of Berlin School of Business and Economics. <https://doi.org/10.2139/ssrn.2526806>
- Gatsi, G. J., Gadzo, G. S., & Kportorgbi, H. K. (2013). The effect of corporate income tax on financial performance of listed manufacturing firms in Ghana. *Research Journal of Finance and Accounting*, 4(15), 118-124.
- Godin, M., & Hindriks, J. (2015). *A review of critical issues on tax design and tax administration in a global economy and developing countries*. Retrieved January 23, 2018, from https://cdn.uclouvain.be/public/Exports%20reddot/core/documents/coredp2015_28web.pdf
- Holmes, J. T. (1999). Scale of local production and city size. *The American Economic Review*, 89(2), 317-320. <https://doi.org/10.1257/aer.89.2.317>
- Investment Climate Statement. (2016). *Tax administration and regulatory framework in Uganda*. Retrieved August 8, 2018, from <https://www.state.gov/e/eb/rls/othr/ics/investmentclimatestatements/#wrapper>
- Johnson, B. K., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *American Education Research Association*, 33(7), 14-26. <https://doi.org/10.3102/0013189X033007014>
- Kangave, J., Nakato, S., Waiswa, R., & Zzimbe, L. P. (2016). *Boosting revenue collection through taxing high net worth individuals: The case of Uganda*. UKAID working paper. <https://doi.org/10.2139/ssrn.2776590>
- Kato, M. (2017). *Procedures and challenges in tax collection*. Retrieved January 17, 2018, from <https://www.africa-uganda-business-travel-guide.com/procedures-and-challenges-in-tax-collection.html>
- Kintu, I. (2017). *The relationship between core values and entrepreneurial performance: A study of SMEs in the informal economy of Uganda's central region* (PHD Thesis, University of Witwatersrand, Johannesburg South Africa).
- Matarirano, O., Chiloane-Tsoka, G. E., & Makina, D. (2019). Tax compliance costs and small business performance: evidence from the South African construction industry. *South African Journal of Business Management*, 50(1), 1-9. <https://doi.org/10.4102/sajbm.v50i1.336>
- Mawejje, J., & Sebudde, K. R. (2018). Constraints or complaints? Business climate and firm performance perceptions in Uganda. *The Journal of Development Studies*. <https://doi.org/10.1080/00220388.2018.1502878>

- Musoke, G. (2012). *Evaluate impact of Pre-Export Verification Conformity*. Retrieved from <http://www.monitor.co.ug/Business/Prosper/Evaluate-impact-of-Pre-Export-Verification-of-Conformity/688616-1640836-dgdjcl/index.html>
- Nakaweesi, D. (2018). *Exports to ease as Uganda starts using single customs territory*. Retrieved from <http://www.monitor.co.ug/Business/Markets/Exports-ease-Uganda-starts-single-customs-territory/688606-4350392-34bgs3z/index.html>
- Omondi, J. A., & Theuri, J. M. (2019). Effect of tax payer awareness and compliance costs on tax compliance among small scale traders in Nakuru town, Kenya. *International Academic Journal of Economics and Finance*, 3(3), 279-295.
- Perez-Quiros, G., & Timmerman, A. (2000). Firm and cyclical variations in stock returns. *The Journal of Finance*, 55(3), 1229-1262. <https://doi.org/10.1111/0022-1082.00246>
- Pervan, M., Pervan, I., & Curak, M. (2017). The influence of age on firm performance: Evidence from the Croatian food industry. *Journal of Eastern Europe Research in Business and Economics*. <https://doi.org/10.5171/2017.618681>
- Price Water House Coopers. (2016). *Tax watch*. Retrieved January 16, 2018, from <https://www.pwc.com/ug/en/assets/pdf/tax-watch-2016.pdf>
- Sim, L. S. (2019). Impact of Goods and Services Tax (GST) on shipbuilding and ship repairs industry in Sarawak. *International Academic Research Journal of Social Science*, 5(1), 23-34.
- Uganda Bureau of Statistics. (2018). *Time to cross and traders' perception baseline survey*. Retrieved from https://www.ubos.org/wp-content/uploads/publications/11_2018GLTFP-REPORT-PERCEPTION_AND_TIME_TO_CROSS-2018-_final.pdf
- Uganda Revenue Authority's Annual Report. (2015/2016). Retrieved January 16, 2018, from <https://www.ura.go.ug/Resources/webuploads/GNRART/Annual%20Report%20FY%2015-16.pdf>
- United States Country Commercial Guides. (2017). *Doing Business in Uganda*. United States Department of Commerce, International Trade Administration.
- World Bank. (2016). *Doing Business in Uganda*. Retrieved August 8, 2018, from <http://www.doingbusiness.org/>
- World Bank. (2017). *Doing Business in Uganda*. Retrieved August 8, 2018, from <http://www.doingbusiness.org/>
- World Economic Forum. (2016). *The Global Enabling Trade Report*. Retrieved August 8, 2018, from <http://reports.weforum.org/global-enabling-trade-report-2016/>
- World Economic Forum. (2017). *Global Competitive Report*. Retrieved August 8, 2018, from <https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1>
- Yu, M. C. (2013). The influence of high performance human resource practices on entrepreneurial performance: the perspective of entrepreneurial theory. *International Journal of Organisational Innovation*, 6(1).

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/>).

Evaluating Anti-Graft Agencies Governance Practices in Nigeria

Uket E. Ewa¹, Adebisi. W. Adesola¹ & Kechi Kankpang²

¹ Department of Accountancy, Cross River University of Technology, Calabar, Nigeria

² Department of Accounting, University of Calabar, Calabar, Nigeria

Correspondence: Uket E.Ewa, Department of Accountancy, Faculty of Management Science, Cross River University of Technology, Calabar, Nigeria.

Received: October 8, 2019

Accepted: October 29, 2019

Online Published: November 6, 2019

doi:10.5539/ibr.v12n12p50

URL: <https://doi.org/10.5539/ibr.v12n12p50>

Abstract

The Nigerian state has witnessed exponential increase in corruption and various anti-graft agencies have been established by government to curb this malaise which has branded the Nigerian state and its citizens all over the world as corrupt. The agencies have over the years been criticized as not being effective and a militia of government in power in the way they prosecute anti-corruption wars. The study evaluated the anti-graft agencies and their governance practices, their effectiveness in addressing the cankerworm in the country by employing the purposive sampling technique where 400 copies of questionnaires were distributed to professional accountants, bankers, journalist and lawyers. The data collected were analyzed using both descriptive and inferential statistics. The study revealed inadequate capacity of the workforce, non-commitment to integrity, ethical values and the rule of law, lack of openness, lack of transparency and accountability. The study recommends amendment of the extant laws establishing the anti-graft agencies for operational efficiency in prosecution, responsiveness to the constitution and adequate and targeted training for officials.

Keywords: anti-graft agencies, government, corruption, EFCC

1. Introduction

1.1 Background of the Problem

The Nigerian state has witnessed exponential increase in corruption right from the Second Republic as that was the excuse given by the military to overthrow the Second Republic Government. However, the military administration did not eliminate the cancer of corruption rather the administration inflamed it. The country's image internationally since then has been on a downward spiral lane where Transparency International in 2018 ranked Nigeria as 148th most corrupt country in their Corruption Perception Index (CPI). This perception has a negative effect on Nigerians travelling abroad as well as cost of doing business internationally. The consequence of corruption in the society is the erosion of scarce resources earmarked for infrastructural development as the funds are siphoned to private pockets. Efficiency is traded for waste and ethnicity, excellence for mediocrity, hard work for lousiness. As a result, in spite of the enormous human and natural resources, the country is still grouped under the poorest countries of the world.

As governance is about the process of making and implementing decisions, governance practices are the panacea for politico-economic growth of a nation. The presence of efficient and effective management of resources thus enhances development. Good governance is not all about making 'correct' decisions, but about the best possible process for making those decisions in a transparent manner devoid of personal interest.

1.2 Statement of the Problem

As corruption is the use of official authority in taking decisions that are for private gains devoid of transparency, successive governments in Nigeria in order to curb corruption and enshrine good decision-making processes and good governance, established various anti-graft agencies to curb the menace which has become a cancer in the fibre of the Nigerian nation. As good governance and operational practice should among others be participatory, effective and efficient in service delivery, equitable, inclusive, responsive, transparent and following the rule of law, this paper is to evaluate the anti-graft agencies operational effectiveness and their governance practices in prisms of good governance and comparison with other international anti-graft agencies.

1.2.1 Objective of the Study

The objective of the paper is to appraise the operational effectiveness of the anti-graft agencies in the prisms of good governance and operational practices mechanism of participatory, effective and efficient service delivery, equitable and inclusive, responsive, transparent and following the rule of law. Also ascertain whether board size composition, operational reporting channel, prerequisite qualification for the leadership, inter-agency collaboration and operations methodology influences its efficiency in service delivery and decision making processes in comparison with other international anti-graft agencies.

1.3 Literature Review

1.3.1 Economic and Financial Crime Commission

The Economic and Financial Crime Commission was established under the Economic and Financial Crime Commission (Establishment) Act 2002. The Commission's responsibilities include the investigation, coordination and enforcement of all financial crimes including advance fee fraud, money laundering, contract scam etc and the adoption of measures to identify, trace, freeze, confiscate or seize proceeds derived from terrorists activities, economic and financial crimes related offences or the properties the value of which corresponds to such proceeds. The Act stipulates the Chairman who is the Chief Executive and Accounting Officer to be either a serving or retired member of any government security or law enforcement agency and 20 other members drawn from various security agencies.

1.3.2 Corrupt Practices and Other Related Offences Act (2004)

The Independent Corrupt Practices Commission (ICPC) was established through the Corrupt Practices and Other Related Offences Act (2004). The Commission is established to prohibit and prescribe punishment for corrupt practices and other related offences and is saddled with the responsibility to investigate and prosecute offences which are listed in the Act. The Board composition consist of the Chairman who would have held or is qualified to hold office as a judge of a superior court of record in Nigeria and twelve (12) other members. The Act empowers the Commission to receive and investigate complaint and prosecute offenders. Also the Act empowers the Commission to in addition educate the public on and against bribery, corruption and related offences; and enlist and foster public support in combating corruption.

1.3.3 The Code of Conduct Bureau

The Code of Conduct Bureau and its twin sister, the Code of Conduct Tribunal was set up under the Code of Conduct Bureau and Tribunal Act, Cap 56, LFN 1990. The Board was set up against the backdrop of large-scale fraud and corruption which has become prevalent in the public service with an inimical effect on economic and social development of the country. The Commission has as its mandate to establish and maintain a high standard of public morality in the conduct of government businesses and to ensure that the actions and behaviour of public officers conform to the highest standards of public morality and accountability. The Commission's Vision is honesty, transparency and accountability.

1.3.4 Nigerian Financial Intelligence Unit (NFIU)

The Nigerian Financial Intelligence Unit is the Nigerian arm of the global financial intelligence Units (FIUs) recently created out from the EFCC. It has as its vision statement to be amongst the leading financial intelligence organisations in the world with a mission to safeguarding the Nigerian financial system and contributing to the global fight against money laundering, terrorism financing and related crimes through the provision of credible financial intelligence. The core mandate of NFIU is to serve as the national center for the receipt and analysis of suspicious transactions and other information relevant to money laundering, associated predicate offences and terrorist financing and for the dissemination of the results of the analysis to law enforcement and anti-corruption agencies.

1.3.5 The Federal Bureau of Investigation (FBI)

The Agency is one of the investigative agencies in the United States. It reports to the Department of Justice and operate independently from the Presidency. The Agency is headed by a Director who is a legal practitioner appointed by the President and confirmed by the US Senate from outside the service. The Agency's Mission Statement as its culture is the; rigorous obedience to the constitution of the United States, respect for the dignity of those it protects, compassion, fairness, uncompromising personal integrity and institutional integrity, accountability by accepting responsibility for the actions or decisions of its employees and leadership both personal and professional. The culture statement thus captures the governance framework upon which the agency operates. It has as its motto: Fidelity, Bravery and Integrity. To achieve its vision and mission, the agency's area of

investigation includes; terrorism, counter intelligence, cyber-crime, public corruption, civil rights, organized crimes, white-collar crimes, violent crimes and weapons of mass destruction (WMD). To accomplish the mission of integrity, fidelity and bravery, the agency renders Criminal Justice Information Service (CJIS), Critical Incident Response Group (CIRG), Laboratory Service, Training academy, operational technology and information management. The agency maintains a robust uniform crime reporting program (UCR) with primary objective of generating reliable information for use in law enforcement administration, operation and management. This program facilitates retrieval of information on crime in the US for law enforcement executives, students of criminal justice, researchers, members of the media and the public at large. This facility enhances quality of crime data collected by law enforcement thus improves inter-agency synergy, data sharing and co-operation.

1.3.6 Serious Fraud Office (SFO)

Due to considerable public dissatisfaction with the UK system for investigating and prosecuting serious or complex fraud, the Serious Fraud Office (SFO) was established in 1988 following the Roskill Report (Fraud Trials Committee) recommendation. The office as part of UK criminal justice system is a specialist prosecuting authority tackling the top level of serious or complex fraud, bribery and corruption cases in the UK. It undertakes large economic crime cases by investigating any suspected offence which appears to her on reasonable grounds to involve serious or complex fraud. Also investigates criminals for the financial benefits they may have made from their crimes. They assist overseas jurisdiction with their investigations into serious and complex fraud, bribery and corruption cases as additions to investigating and prosecuting offences of corporate failure to prevent the facilitation of overseas tax evasion. Unlike other agencies, the agency both investigate and prosecute its cases because of the complexity of the cases assigned to it. The agency is headed by a Director who is responsible for overall responsibility for the SFO's strategic direction, case decisions and organisational management. While the Chief Operating Officer is responsible for the day to day running of the business and deputies for the Private Office & Governance, the General Counsel, Chief Operating Office and International Liaison and Investigations Adviser's role is to provide quality assurance, day to day running of the business, oversight advice and quality control on the agency's case development and trial preparation. The three non-executive directors in the board contribute to the agency's strategic development and providing constructive challenges. The Agency reports to the Attorney General's office and work in collaboration with other UK law enforcement agencies like the National Crime Agency's Economic command, international corruption unit and bribery and corruption intelligence unit. Also the City of London Police, the UK Police forces and regional organised crime units, the HM Revenue and Customs and the Financial Conduct Authority. Over 80% of staff members are specialist caseworkers and where the director believes there are reasonable grounds to suspect complex or serious fraud, bribery or corruption, she opens an investigation which is taken on by a multidisciplinary case team. If sufficient evidence of criminal behaviour is uncovered during the investigation and a prosecution is found to be in the public interest, charges are brought. This methodology has greatly enhanced the efficiency and effectiveness of the agency's cases prosecutions.

1.3.7 Governance Practice and Graft

Governance is the medium of administering a people for the overall good of the society. There are various means of governance in both the public and private sectors. Governance ranges from dictatorial autocratic to participatory governance. Governance can be adjudged good or bad governance. Accountability is the bedrock of good governance and in the public sector, government agencies' officials have an obligation to report, explain and be answerable for the consequences of decisions they make on behalf of the citizenry. Good governance therefore should exhibit openness, participatory, effective and efficient, equitable and inclusive, responsive, transparent and compliance to the rule of law.

Board effectiveness and efficiency has also been attributed to board composition and quality of board members. Studies have attributed the effectiveness of a group decision making process decreases as the size of the group get larger. They opined the optimum size for a decision-making group to be seven people and that for each person added above this, the group decision making effectiveness is reduced by 10% (Blenko, Mankins & Rogers, 2010). However, Margolis (2011) posit that other studies revealed the most effective number in the board to be five but noted that the most effective of the group decision making is between five and eight, (Margolis, 2011).

The public sector plays a major role in society as public sector expenditure forms a significant part of a nation's Gross Domestic Product (GDP). This is so because public sector entities are major employers of labour and, its operations significantly influences socio-economic growth and development. To promote a robust governance structure, the International Public Sector Governance Framework was developed jointly by the Chartered Institute of Public Finance and Accountancy (CIPFA) and the International Federation of Accountants (IFAC).

1.3.7.1 Aim of the International Public Sector Governance Framework

The aim of the framework was to promote the development of robust governance by establishing a benchmark for good governance in the public sector thus encouraging better service delivery and improved accountability. The framework is anchored on six key principles of good governance of ensuring agencies act in the public interest at all times. These include; Strong commitment to integrity, ethical values and the rule of law, openness and comprehensive stakeholder engagement, defining outcomes in terms of sustainable economic, social and environmental benefits, determining the interventions necessary to optimise the achievement of intended outcomes, developing the capacity of the agencies which include the capability of its leadership and the individuals within it through training, managing risks and performance through robust internal control and strong public financial management and implementing good practices in transparency and reporting to deliver effective accountability.

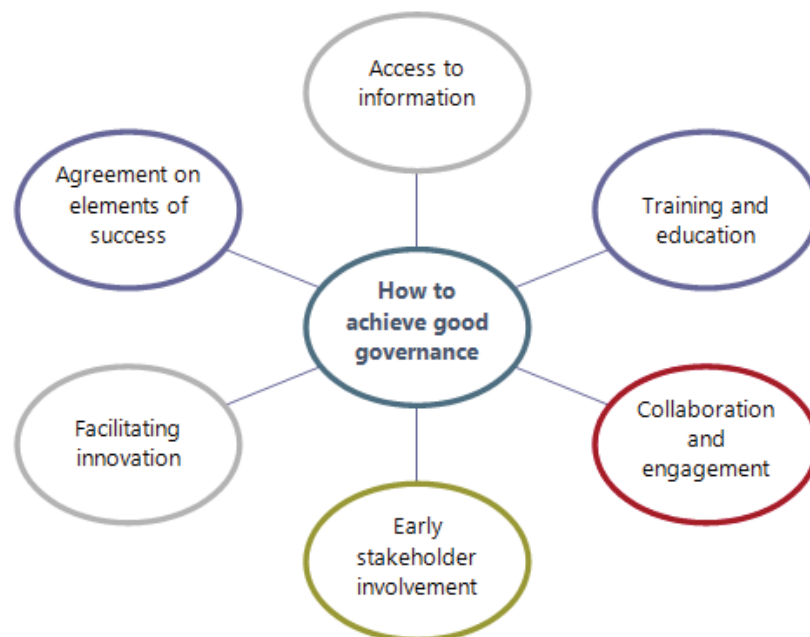


Figure 1. Roadmap to Good Governance

Demonstrating integrity involves the leadership promoting a culture of acting in the public interest at all times by taking the lead in establishing and living up to specific values for the agencies and their staff. These values include objectivity, selflessness and honesty. They reflect the public expectations about the conduct and behaviour of agencies and people who manage public services and spend public funds. Similarly, strong commitment to ethical values involves embedding ethical values and standards throughout the agencies and ensuring the values form the basis for all its policies, procedures and actions as well as the personal behaviour of the agencies managements and staff. This is through the establishment of code of conduct policy for management and staff and ensuring that steps are taken to avoid or deal with any conflict of interest whether real or perceived. Also, the framework requires anti-graft agencies as public sector entities and its staff to demonstrate a strong commitment to the rule of law as well as compliance with all relevant laws. This is important as fair legal process, rooted on an impartial as well as an independent judicial system assist in building societies where individuals and organisations feel safe. This informed the crafting of the United States FBI Mission statement.

1.3.7.2 Corruption in Nigeria

Corruption has grown in leaps and bounds since the Ibrahim Badamosi Babagida's era as military President of Nigeria when the expression, "settlement" was coined as a synonym for corrupt practices by the general public. The country's image since then has been on a downward spiral lane. In their ranking in 2018, Transparency International Nigeria ranked Nigeria as 148th most corrupt country in the Corruption Perception Index (CPI).

Various scholars have defined corruption in different ways with overlapping emphasis ranging from unethical behaviour to political misconduct, bribe-taking and sale of government assets for personal gain (Shleifer & Vishny, 1993, Svensson, 2005). World Bank and Transparency International (TI) defined corruption as “the misuse of public office for private gain. Thus it is the misapplication of entrusted power for personal gain by dishonest official either appointed or elected official, (The World Bank, 1997). In their contribution, Banerjee, Hanna and Mullainathan (2011) define corruption as “an incident where a bureaucrat (or an elected official) breaks a rule for private gain”. Tanzi (1998) opined that it may not be easy to define corruption but is “generally not difficult to recognize corruption when observed”. According to Ewa, Kechi, Adu and Agida,(2017), the misuse of entrusted authority comes in form of bribery, misappropriation, misapplication of entrusted funds and property of the organisation or the public for personal use and suppressing the rule of law for selfish reasons. Ewa et al (2017) posited that corruption is the “abuse of public power for pecuniary gain or for the benefit of a group to which an individual owes allegiance”. While premeditating factors rooted in a country’s peculiar social and cultural history, political and economic development, bureaucratic traditions and policies enhances corruption, it flourishes when institutions are either weak or non-existent and economic policies distort the marketplace (World Bank, 1997b). Klitgaard (1996) developed a model which explained that the extent of corruption is determined by the amount of monopolistic and discretionary powers (ability to take responsibility solely without external check) that officials exercises without recourse to accountability.

$$C (\text{Corruption}) = M (\text{Monopoly power}) + D (\text{Discretion}) - A (\text{Accountability})$$

In explaining the model, he stated that monopolistic and discretionary powers are prevalent where administrative roles and regulations are poorly defined. That is, poorly defined ethical standards, weak administrative and financial systems and ineffective watchdog agencies.

1.4 Research Hypothesis

H₀: There is no significant relationship between anti-graft agencies prosecution efficiencies/ obedience to the rule of law and their administrative/professional etiquette and good governance practices

2. Methodology

This study adopted both exploratory and survey design to collect the data on the study’s variables, analysis and testing.

The functional relationship between the variables of this study is expressed thus:

$$\begin{aligned} \text{SUMEFFIC} &= f(\text{SUMGGP}, \text{SUMAPE}) \\ \text{SUMEFFIC} &= \alpha_0 + \alpha_1 \text{SUMGGP} + \alpha_2 \text{SUMAPE} + e_t \end{aligned}$$

Where;

SUMEFFIC = Efficiency on prosecution and Obedience to the rule of law

SUMGGP = Good Governance Practices

SUMAPE = Admin/Professional etiquette

β_0 = Constant

α_1 - α_2 = Coefficient of the variables

μ_t = Stochastic error term

2.1 Characteristics of Participants

A combination of inductive and survey research paradigm was employed in this research. The questionnaire used in this study consisted of two sections. The first section collected demographic data. The second section contained twelve (12) semantic differential belief statements culled from good governance framework variables. Two performance indices were measured by these belief statements – (1) obedience to the rule of law, (2) efficiency in prosecution and decision usefulness. The statements were structured as bipolar adjectival statements which were separated by five – point likert scales aimed at ensuring that respondents would choose a number from the scale which identified their level of agreement with one or the other of the statements. The population of the study comprised professional accountants, bankers, journalists and lawyers in Cross River State, Akwa Ibom State, Edo State, Bayelsa State, Delta State and Rivers State representing the South-South geopolitical region of Nigeria.

2.2 Sample Procedure/Sampling Size

The purposive sampling technique was employed in the study as 400 copies of questionnaires were distributed to 100 professional accountants, 100 bankers, 100 journalist and 100 lawyers. The belief statements (variables) were individually evaluated in other of significance to ascertain the anti-graft agencies governance practices and their success rate in curbing corruption in Nigeria. The data collected were analyzed using both descriptive and inferential statistics. Four hundred questionnaires were administered to the respondents in the study. Three hundred and fifty questionnaires were returned completed constituting 88% (eighty per cent) success rate. This return rate of 80% is considered adequate following the assertion by Moser and Kalton (1971) that the result of a survey could be considered as biased and of little value if the return rate was lower than 30 – 40%. Here the return rate of 80% is far in excess of 40%.

3. Results

3.1 Data Analysis

3.1.1 Demographics of Respondents

The survey document was sent to 400 subjects containing 10 belief statements from each of four groups- accountants, bankers, lawyers and journalists. Response rates from these groups are as shown below.

Table 1. Demographics of Respondents

Subject Group	No of Survey Sent	Responses Received		Percentage of Group Responses	
Accountant	100	95	95%	27%	
Bankers	100	85	85%	24%	
Lawyers	100	90	90%	26%	
Journalists	100	80	80%	23%	
Total	400	350	88%	100%	

Source: Analysis of Survey Data (2018)

The result in Table 1 indicates an overall response rate of 88%. This rate is considered a creditable result for this type of data collection method. The target audience for the research are accountants, bankers, lawyers and journalists. The choice is anchored on their perceived knowledge of anti-graft agencies and their governance practices and so any response from these groups of respondents should add credibility to the investigation.

Table 2. Responses of the Respondents on the Belief Statements:

S/N	Statements	SA	A	U	D	SD
Good Governance Practices						
1	The agencies are not responsive to the yearnings of the public in the discharge of their responsibilities	165(47%)	115(33%)	51(15%)	19(5%)	
2	The agencies activities are open to the public and interact with the public often			91(26%)	159(45%)	100(28%)
3	The agencies carry out their assignment not in a transparent manner	155(44%)	157(45%)	26(7%)	12(3%)	
4	The agencies do not treat every suspect equally no matter your political affiliation and status(ie equitable and inclusive)	116(33%)	180(51%)	31(9%)	23(7%)	
5	The agencies line of reporting do not influence their decision making			111(32%)	190(54%)	49(14%)
Administrative/Professional Etiquette						
6	The agencies staff are not well trained and they are effective and efficient in the discharge of their duty	127(36%)	89(25%)	74(21%)	54(15%)	6(2%)
7	The laws setting up the agencies are not standard and operatives are not fully aware of the laws	102(29%)	107(30%)	79(22%)	62(18%)	
8	The composition of the agency boards is not moderate	115(33%)	75(21%)	76(22%)	62(18%)	22(6%)
9	No knowledge of good governance criteria	102(29%)	81(23%)	110(31%)	57(16%)	
Prosecution Efficiency/Obedience to the rule of law						
10	The agencies performances in obedience to the rule of law is not outstanding	100(28%)	155(44%)	76(22%)	19(5%)	

11	The agencies management is loyal to the Constitution than the President				283(80%)	67(19%)
12	The agencies performance creditably is questionable by the public	112(32%)	105(30%)	87(25%)	46(13%)	

Source: Analysis of Survey Date (2018)

Table 3. Least Square Regression Result on Efficiency in Prosecution and the Rule of Law of Anti-Graft Agencies in Nigeria (Regression Constant and Coefficients)

Variable	Unstandardized Coefficients		Standardized Coefficient Beta	T	P
	B	Std Error			
Constant	2.472	0.400		6.187	0.000
SUMAPE	-.147	0.037	-.347	-.345	0.000
SUMGGP	.551	0.048	1.006	11.408	0.000

*Significant at .05 level p<.05

Dependent variable: SUMEFFIC

Predictors: SUMAPE, SUMGGP

Source: Field survey (2018)

Table 4. Least Square Regression Result Model Summary of Efficiency in Prosecution and the Rule of Law of Anti-Graft Agencies in Nigeria

R	R-Square	Adjusted Square	R	Std Error of Estimate	R-Square	F Change	Durbin-Watson
.710	.504	.501		1.27625	.504	176.269	.102
Source of Variation	Sum of Squares	Df		Mean Square	F	P	
Regression	574.220	2		287.110	176.629	0.000	
Residual	565.198	347		.1.629			
Total	1139.417	349					

*Significant at .05 level p<.05

Dependent variable: SUMEFFIC

Predictors: SUMAPE, SUMGGP

Source: Field survey (2018)

Table 5. Inter Correlation among the Variables

Variables	SUMEFFIC	SUMAPE	SUMGGP	P
SUMEFFIC	1.000	0.564	0.694	0.000
SUMAPE	0.564	1.000	0.903	0.000
SUMGGP	0.694	0.903	1.000	0.000

*Significant at .05 level p<.05

Dependent variable: SUMEFFIC

Predictors: SUMAPE, SUMGGP

Source: Field survey (2018)

3.1.2 Test of Hypotheses

H₀: There is no significant relationship between anti-graft agencies prosecution efficiencies/ obedience to the rule of law and their administrative/professional etiquette and good governance practices.

H₁: There is a significant relationship between anti-graft agencies prosecution efficiencies/ obedience to the rule of law and their administrative/professional etiquette and good governance practices.

Administrative/professional etiquette and good governance practices have positive and significant relationship with the Agencies efficiency in prosecution and obedience to the rule of law with the Agencies efficiency in prosecution and obedience to the rule of law. The t-statistics shows significant relationship between the variables.

In Table 5, the correlation coefficient(R) of 0.710 (71 per cent) indicates a strong relationship between the Agencies efficiency in prosecution and obedience to the rule of law and the independent proxies of administrative/professional etiquette and good governance practices. The coefficient of determination (R^2) of 0.504 (50.4 per cent) indicates that only 50.4 per cent of total variation in the Agencies efficiency in prosecution and obedience to the rule of law is jointly accounted for by administrative/professional etiquette and good governance practices while the remaining 49.6 per cent of the variation in efficiency in prosecution and obedience to the rule of law is caused by extraneous factors not captured in the model. However the F value of 176.269 ($p=000$) is significant at less than 5 per cent. This thus signifies the model as fitting the population well and can be used for interpretation about not just the population but also for policy formulation. Therefore based on this result, the null hypothesis that there is no significant relationship between anti-graft agencies prosecution efficiencies/obedience to the rule of law and good governance practices is rejected as the agencies prosecutorial efficiencies and adherence to the rule of law is greatly influenced by good governance practices as well as administrative/professional etiquette. The Durbin-Watson (DW) for the model of .102 which is below 2 reveals that there is a significant threat of independent error for the equation as there is positive autocorrelation.

4. Findings and Discussions

The survey on the notion that the agencies are not responsive to the yearnings of the public in the discharge of their responsibilities revealed 280 (80 per cent) respondents are of the view that the graft agencies are not responsive to the public yearnings. This is in agreement with (Adedokun, 2018; Yakubu, 2018). On the notion that the agencies are interactive with the public, majority of the respondents 259 (74 per cent) either strongly disagreed or merely disagreed that the agencies are interactive with the public. However, 91 (26 per cent) of the respondents were undecided on the notion. They believe the agencies are not telling the people the correct situation of things and they are not communicating to the general public as it is in developed countries. This none communication with the public reinforced the notion that the agencies are not transparent in their responsibilities as 312 (89 per cent) of the respondents either merely or strongly agreed that the agencies do not carry out their assignment in a transparent manner. This is in agreement with the position of Justice Gabriel Kolawole, (Madukwe, 2018; Nnochiri, 2018_A; Adedokun, 2018). This is reaffirmed as 296 (84 per cent) of the respondents are of the opinion that the agencies do not treat suspects equally but influenced by political affiliation. This is in agreement with Fabiyi and Akinkuotu (2018) who cited Mr Kola Ologbodiyan as saying it is a grave concern that while corruption and corrupt persons abound in party in power (The APC) and walking freely, the EFCC prefers to chase after innocent members of the opposition party. Writing on Kemi Adeosun and the opportunity lost, Adedokun (2018) lamented that the message that anti-graft agencies pass across to Nigerians is that they only serve the interest of the government in power and not that of the people and a partisanship that ignores the log in the eye of a family member but identifies the speck in the neighbour's eye as the policy is not only faulty but whimsical and selective. This is in contrast to other intelligence agencies in Israel, America or Europe.

On the perception that the agencies line of reporting do not influence their decision making processes, 239 (68 per cent) of the respondents are of the view that the agencies line of reporting to the presidency greatly influences their decision making processes while 111 (32 per cent) were undecided. This is in agreement with (Adedokun, 2018; Olatunji, 2018_B; Akinkuotu & Olugbemi, 2018). This is contrary to the United States of America (US) where the FBI was investigating President Trump through an independent special prosecutor without interference. The overbearing control of anti-graft agencies by government especially the executive arm is considered a corruption impediment to their effectiveness, (Okeshola, 2012)

On the level of training, while 216 (61 per cent) of the respondents believe the staff of the agencies are not well trained to effectively and efficiently discharge their responsibilities, 74 (21 per cent) respondents were unable to comment on the relevance and adequacy of training given to the agency staff. This is in agreement with Nnochiri (2018_B) citing a prosecution team lawyer in a case between Mr Ibrahim Tumsah and the Nigerian government stating the government was withdrawing the case against Tumsah for re-filing after "proper and thorough investigation" is conducted in the case. Also Olatunji (2018_A) citing Justice Olatokunbo Majekodunmi stated that the EFCC failed woefully by relying on third party evidence that lacks in merit when they should have known better.

Similarly, while 209 (59 per cent) of the respondents are of the view that the laws of the agencies are not standard and the operatives are not fully aware of the laws, 79 (22 per cent) of the respondents are undecided. Adeleye Bamidele cited by Jibueze (2018_B) stated that Nigeria lacks strong institutions and there is absence of the rule of law in Nigeria

On the question of the composition of the agencies board sizes not being moderate and thus affecting its performance, while 190 (54 per cent) of the respondents are of the view that the composition of the agencies boards is not moderate, 76 (22 per cent) are undecided. But 62 (18 per cent) of the respondents are of the view that the agencies board composition and sizes are moderate for effective service delivery. However, while some studies have shown that optimum and effective size for a decision-making group to be seven people and for each person added above this, the group decision making effectiveness is reduced by 10% (Blenko, Mankins & Rogers, 2010), others found that the most effective number as five but noted that the most effective of the group decision making is between five and eight, (Margolis & Sheila, 2011).

While the survey revealed 110 (31 per cent) respondents being undecided as to agencies officials lack of knowledge of good governance awareness, 183 (52 per cent) respondents belief officials have no knowledge of good governance awareness thus affecting their mode of operations. Therefore while 255 (72 per cent) respondents surveyed belief the agencies do not operate in obedience to the rule of law, only 19 (5 per cent) think the agencies are in obedience to the rule of law in the discharge of their responsibilities. This is in agreement with Unachukwu (2018) citing Chief Emeka Obegolu who in a lecture organised by the NBA Eket branch said the rule of law was a hall-mark of democracy and that there is a connection between democracy and good governance. This is in line with the works of Ojiakor, Anisiuba and Nnam (2017) and Adegbie and Fakile (2012) that revealed poor governance, favouritism, tribalism, poor remuneration, ineffective and wrong judgements as factors mitigating the performance of the agencies. Commenting on anti-corruption fight and the rule of law, Olaniyan (2018) stated that part of the problem of fighting corruption is the authority's disdain for the rule of law as illustrated by the tendency to pick and choose which court orders it complies with and opined that real progress is yet to be made with respect to the prosecution of cases of grand corruption as high ranking corrupt officials rarely end up in jail. Thus the assertion as to whether the management of the agencies are loyal to the constitution as against the President, 67 (19%) of the respondents strongly disagreed that the agencies loyalty is to the Constitution as against the Presidency while 283 (80 per cent) similarly disagreed to the notion of loyalty to the Constitution. This is in agreement to Adedokun (2018) who opined that the average public officer in Nigeria does not understand that they owe their allegiance to the cause of the country because politics has become a major source of survival in Nigeria and so they defer to their appointer because of the power to hire and fire by the chief executive. This is in agreement with (Olaniyan, 2018; Unachukwu, 2018; Jibueze, 2018_B)

On the effectiveness and credibility of the agencies performances, while the survey revealed 217 (61 per cent) respondents believing the agencies have not performed to internationally acceptable standard, only 46 (13 per cent) respondent believed otherwise. This is in agreement with the judgement delivered in a case 'EFCC versus Prof. Olusola Oyewole' where the presiding judge declared that all the evidences presented by the prosecution had been manifestly discredited through cross-examination such that the court could not rely on them and thus declared that EFCC failed woefully in establishing a prima facie case against the accused persons. Also in agreement with the report presented by the Corruption Cases Trial Monitoring Committee (COTRIMO) which stated that offenders were charged to court before proper investigations of charges were done. The report stated that prosecuting agencies lacked adequate personnel, duplicate charges and multiplication of cases and while some prosecutors lacked the requisite experience to prosecute corruption cases, there is lack of commitment and collusion between defence counsel and some prosecutors to pervert justice by either stalling trial or by achieving pre-determined results, (Jibueze, 2018_A). This study is in line with the studies of (Amaefule & Umeaka, 2013; Ojiakor, Anisiuba & Nnam, 2017 and Dania, 2017) that posited that the activities of the anti-graft agencies are not effective in curbing corruption and financial crimes in Nigeria as cases are lost due to lack of painstaking investigation, lack of adequate and requisite trained personnel and lack of strategic preparations.

4.1 Conclusion/Recommendations

The study revealed among others the lack of capacity, inefficiency and ineffectiveness in the Agencies in the discharge of their responsibilities as well as unresponsiveness of the Agencies to the general public. Also lack of transparency in their mode of operations and outright disobedience to the rule of law as well as unequal treatment of accused citizenry. The study further revealed that the agencies boards' compositions affect their level of efficiency and effectiveness.

The study thus recommend as follows:

- i. The review of the extant laws establishing the agencies to make them independent from the executive arm of government.
- ii. Improve funding, training and retraining of field staff to enhance investigative skills and prosecution efficiency.

- iii. The leadership of the agencies should be reserved for only seasoned professionals in the field of forensic accounting and legal practice.
- iv. The technical staff in the agencies should be drawn from among professional accountants, forensic accountants, legal experts, computer specialists and policemen trained in forensic examination.

References

- Adedokun, N. (2018, July 12). Kemi Adeosun and the opportunity lost. *The Punch*, p. 20.
- Adegbie, F. F., & Fakile, A. S. (2012). Economic and financial crime in Nigeria, Forensic accounting as Antidote. *British Journal of Arts & Social Sciences*, 6(1).
- Akinkuotu, E., & Olugbemi, A. (2018, August 1). EFCC loses ₦15 billion case against ex-Sokoto gov, Bafarawa. *Punch Newspaper*, p. 12.
- Amaefule, L. I., & Umeaka, E. C. (2016). Combating economic and financial crimes by the Anti-graft Agencies in Nigeria: Implications on the Nation's economic growth and development. *International Journal of Innovative Development & Policy Studies*, 4(2), 8-33.
- Banerjee, A.; Hanna, R., & Mullainathan, S. (2011). *Corruption*. <https://doi.org/10.3386/w17968>
- Blenko, M. W., Mankins, M. C., & Rogers, P. (2010). *Steps to breakthrough performance in your organization*. Bain and Company, 2009, HBR. Retrieved from hbr.org/2010/01/stat-watch/ar/1
- CCB. (1990). *The Code of Conduct Bureau and Tribunal Act*.
- Constitution of the Federal Republic of Nigeria, 1999 (Amended).
- Dania, O. (2017). *Why EFCC lose good corruption cases – Alabi*.
- EFCC. (2002). Economic and Financial Crimes Commission Act.
- Ewa, U. E., Kechi, K., Adu, V. A., & Agida, J. I. (2017). Evaluating institutional agencies in curbing corruption in Nigeria. *International Journal of Management*, 5(12), 1-11.
- Fabiyi, O., & Akinkuotu, E. (2018, August 1). EFCC detains Ekweremadu over 22 properties. *The Punch Newspaper*, p. 11.
- FBI. (1908). *Federal Bureau of Investigation*. Retrieved from <https://www.fbi.gov> on 29/8/19
- ICPC. (2004). *Independent Corrupt Practices Commission Act, 2004*.
- Jibueze, J. (2018a, June, 5). The anti-corruption cases Trial Monitoring Committee (COTRIMO) has submitted a preliminary report on causes of delay in the prosecution of corruption cases to the National Judicial Council (NJC). *The Nation*, p. 22-23.
- Jibueze, J. (2018b, June, 5). No rule of law without strong institutions. *The Nation*, p. 27.
- Klitgaard, R. (1996). "Bolivia: Healing Sick Institutions in La Paz," in *Governance and the Economy in Africa: Tools for Analysis and Reform of Corruption*, Edited by Patrick Meagher. College Park, MD: *Centre for Institutional Reform and Informal Sector*.
- Madukwe, B. (2018). Judge withdraws from Dasuki's trial, say EFCC frustrating case, *Vanguard News*, March 16, p. 4.
- Margolis, S. (2011). *What is the Optimal Group Size for Decision Making?* Retrieved from www.shielamargolis.com/2011/01/24
- Moser, C. A., & Kalton, G. (1971). *Survey methods in social investigation*. UK; Heineman Educational.
- NFIU. (2019). Nigerian Financial Intelligence Unit Act.
- Nnochiri, I. (2018a). Delay in looters' trial: Committee indicts anti-graft agencies, courts, prisons. *Vanguard News*, May, 21, p. 9.
- Nnochiri, I. (2018b). FG drops charge against civil servant docked over 86 exotic cars, houses. *Vanguard News*, April, 18, p. 9.
- Ojiakor, I. P., Anisiuba, C. A., & Nnam, I. J. (2017). Appraisal of the activities of anti-graft agencies towards curbing corruption and financial crimes in Nigeria. *Journal of Advanced Management and Social Sciences*, 4(3), 196-216.
- Okeshola, F. B. (2012). Corruption as impediment to implementation of anti-money laundering standards in

- Nigeria. *American International Journal of Contemporary Research*, 2(7).
- Olaniyan, K. (2018). Buhari's anti-corruption fight and the rule of law. *The Punch*, July, 12, p. 40.
- Olatunji, D. (2018a). Fraud: Court strikes out EFCC suit against FUNAAB ex-VC, Ogunlewe. *Vanguard News*, May, 18, p.11.
- Olatunji, D. (2018b). Saraki VS IGP: Kwara judiciary steps in, wants suspects returned to Ilorin. *Vanguard News*, May, 18, p.11.
- SFO (1983). *Serious Fraud Office*. Retrieved from <https://www.sfo.gov.uk/publications/corporate-information/sfo-historical-background-power>
- Shleifer, A., & Vishny, R. W. (1993). Corruption. *Quarterly Journal of Economics*, 108(3), 599-617. <https://doi.org/10.2307/2118402>
- Svensson, J. (2005). Eight questions about corruption. *Journal of Economic Perspectives*, 19, 19-42. <https://doi.org/10.1257/089533005774357860>
- Tanzi, V., (1998). Corruption around the World: Causes, Consequences, Scope, and Cures. *IMF Staff Papers*, 45(4). <https://doi.org/10.2307/3867585>
- Unachukwu, J. A. (2018). Democracy can't thrive without rule of law, *The Nation*, June, 5, p. 23.
- World Bank. (1997). Helping Countries Combat Corruption: The Role of the World Bank. *Poverty Reduction and Economic Management Network*. Washington, D.C.: World Bank.
- World Bank. (1997b). *World Development Report*, Washington, D.C..
- Yakubu, D. (2018). Falana, Nwagwu fault Buhari's anti-corruption crusade. *Vanguard News*, May, 18, p3.

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/>).

Analyzing the Role of Dynamic Capabilities in the Internationalization of Gradual Global SMEs

Andrea Moretta Tartaglione¹, Vincenzo Sanguigni², Ylenia Cavacece¹ & Maria Fedele¹

¹ Department of Economics and Law, University of Cassino and Southern Lazio, Cassino, Italy

² Department of Business and Quantitative Studies, University of Naples "Parthenope", Naples, Italy

Correspondence: Andrea Moretta Tartaglione, Department of Economics and Law, University of Cassino and Southern Lazio, Cassino, Italy.

Received: October 15, 2019

Accepted: November 11, 2019

Online Published: November 14, 2019

doi:10.5539/ibr.v12n12p61

URL: <https://doi.org/10.5539/ibr.v12n12p61>

Abstract

Internationalization represents an obligatory path for firms in order to compete and survive in the current competitive environment. However, many enterprises, especially the SMEs, sometimes lack the necessary resources to grow and succeed in international markets. Several authors argue that SMEs constantly need to create, adapt and reconfigure their relationships and network resources to remain competitive in an international environment, that is, they need to develop dynamic capabilities. The aim of this paper is to analyze the international growth of gradual global SMEs by adopting the dynamic capabilities framework. Through the case study of a firm from South Italy, this paper aims to analyze the role played by dynamic capabilities in the growth and success of a gradual global SME in international markets. The results show that the capabilities to perceive opportunities and threats in the international context, to seize opportunities through adaptation, reactivity and reconfiguration, have been fundamental for the international success of the company analyzed.

Keywords: gradual global, dynamic capabilities, case study, internationalization, SMEs

1. Introduction

The dynamics triggered by the current phase of globalization have determined an increasing complexity in the economic system, able to modify organizations' competitive conditions and perspectives. In this scenario, companies are encouraged to continuously analyze the influencing factors in global markets, in order to address the strategic choices in line with the context variability. Among those strategic choices, international development is considered an inevitable process for companies, in a certain sense "forced" to operate on a global scale regardless of their potential and the available resources. However, for many SMEs, internationalization represents a challenge, a difficult and demanding path that requires resources, skills and sizes that often they do not possess.

The traditional theories on competitive advantage, such as the Resource-Based View (Penrose, 1959), are therefore not sufficient to explain the international success of these companies. The positive results achieved by many SMEs in international markets could partly derive from their flexibility and adaptation to the variety and variability of the environment - at the endogenous and exogenous level - and from their ability to positively face the emerging challenges.

Dynamic capabilities, defined as the ability of firms to create, adapt or modify their own resources and skills (Teece, Pisano & Shuen, 1997), are fundamental in the responsiveness of companies to rapidly changing contexts (Teece, 2014). In recent years, those capabilities have been investigated from different perspectives aimed at analyzing their influence on improving performance and results at international level (Jantunen, Puumalainen, Saarenketo & Kylaheiko, 2005; Evers, 2011; Prange & Verdier, 2011). However, the reference literature focused on the study of multinational companies and born global enterprises, neglecting other types of companies that characterize the European business system. Based on those considerations, the aim of this work is to investigate the role of dynamic capabilities in the internationalization process of gradual global SMEs (Moen & Servais, 2002).

This paper adopts the model of Teece (2007) as its theoretical framework, which identifies three macro-categories of dynamic capabilities:

- Sensing - the firm's capability to identify opportunities and threats in the environment through research activities, tests and experimentation, aimed at understanding the expressed or latent needs of consumers, the responses of suppliers and competitors as well as the structural evolution of markets and the opportunities for innovation and technological development;
- Seizing - the firm's capability to seize the opportunities identified by adapting the sizing of its offer, its business model, its boundaries, and by critically analyzing the errors made to redefine its decision-making processes;
- Reconfiguration - the firm's capability to recombine and reconfigure its assets according to the changes in the environment, particularly through the adaptation of the organizational structure, the knowledge management, the collaboration with other companies and the exchange of best practices for innovation.

Through a qualitative research based on the case study method, this work analyzes the emerging dynamic capabilities in the internationalization process of an Italian SME in order to answer the following research questions:

RQ1. Are dynamic capabilities able to support the internationalization of a gradual global SME?

RQ2. Is there any link between an SME's dynamic capabilities and its competitive advantage in international markets?

RQ3. What are the most important dynamic capabilities for the international growth of gradual global SMEs?

This paper is organized as follows: firstly, the literature on dynamic capabilities and internationalization is analyzed, with a focus on the internationalization of gradual global SMEs; secondly, the method adopted to conduct the case study is described, showing the identification of indicators to detect the dynamic capabilities of the selected company; thirdly, the results of the study are discussed, with a focus on three categories of dynamic capabilities and their links with the internationalization process; finally, conclusions, implications and limitations are presented.

2. Literature

2.1 *Dynamic Capabilities and Firms' Internationalization*

Several authors tried to explain firms' internationalization processes by elaborating theoretical models. Since the early 90s, this topic generated an extensive body of scientific literature, mainly based on two research lines. The first, of Anglo-Saxon origin (Hymer, 1976; Dunning, 1981; 1988; Buckley & Casson, 1976; Rugman, 1981), generated various contributions almost exclusively referring to large enterprises. The second, of European origin, generated different strands of research, among which the dominant paradigm is the Uppsala model (Johanson & Wiedersheim-Paul, 1975; Johanson & Vahlne, 1977), which distinguishes four different steps for entering an international market. Other models focused mainly on the born global (Oviatt & McDougall, 1994; Mc- Dougall, Shane & Oviatt, 1994), or on the participation of firms in international networks (Hadley & Wilson, 2003; Coviello, 2006). Several authors argue that these theories do not provide exhaustive explanations for the discrepancies in results achieved abroad by firms in terms of growth and survival (Sapienza, Autio, George & Zahra, 2006; Zahra, 2005; Prange & Verdier, 2011). According to Crick (2009), the theories mentioned above overlook fundamental factors such as entrepreneurial orientation, managers' international experience and capability to sense and seize opportunities - factors that can have a significant impact on the formulation of strategies and on performance in a global environment.

With this in mind, several authors have started to analyze internationalization processes from a dynamic perspective (Chang & Rosenzweig, 2001; Luo, 2002; Sapienza, Autio, George & Zahra, 2006; Tallman & Fladmore-Lindquist, 2002). This perspective allows to scrutinize aspects such as learning, integrating, building and reconfiguring internal and external competences (Teece, Pisano & Shuen, 1997) that, once adapted to a firm's specific internationalization processes, suggest a predefined path for developing distinctive capabilities.

According to Pitelis and Teece (2010), managing a firm in a global economy characterized by greater volatility and dynamism requires flexibility, agility, entrepreneurship, learning and smart investment choices; all central aspects in the dynamic capabilities' framework. Several authors believe that an effective internationalization process can be largely explained by a firm's dynamic capabilities (Dunning & Lundan, 2010; Pitelis & Teece, 2010; Teece, 2014). Teece (2007), for example, states that owning difficult-to-replicate assets is not enough to gain a competitive advantage for enterprises operating in complex competitive environments with a high number of activities to be managed globally, and that those enterprises need unique dynamic capabilities, such as the ability to orchestrate the assets and exploit co-specialized and complementary resources at the global level

(Katkalo, Pitelis & Teece, 2010). The greater the dynamism of the environments in which a firm operates, the more dynamic capabilities become critical (Augier & Teece, 2007) and their effect on performance prominent (Fang & Zou, 2009). Therefore, the impact of dynamic capabilities is more obvious in international enterprises (Frasquet, Dawson & Mollá, 2013) that operate in environments volatile by nature (Pehrsson et al., 2015).

The processes of enterprises' international expansion require the development of two distinct levels of dynamic capabilities, defined by the literature as generic dynamic capabilities and specific dynamic capabilities. Generic dynamic capabilities are needed to start and support internationalization processes, and serve to build and support specific capabilities related instead to each strategy adopted by the enterprises in those processes.

Frasquet, Dawson & Mollá (2013) gather classifications from previous authors and identify three main types of generic dynamic capabilities: international entrepreneurial orientation, learning and adaptation. International entrepreneurial orientation is defined as the dynamic capability to sense and seize international opportunities in an innovative, visionary, proactive and timely way, with a market orientation (Knight & Cavusgil, 2004; Weerawardena et al., 2007; Cavusgil & Knight, 2015). Learning consists in acquiring, integrating and exploiting all information acquired during the internationalization process (Villar et al., 2014), and turning it into knowledge (Luo, 2002; Prange & Verdier, 2011). Adaptability is the reconfiguration of resources and processes according to changes in the environment and to national differences (Knight & Cavusgil, 2004), in order to keep a constant balance between the firm's routines and local needs (Frasquet et al., 2013). Jantunen et al. (2005) and Evers (2011) empirically demonstrate that the dynamic capability to adapt, combined with international entrepreneurial orientation, facilitates the overcoming of the difficulties met in the various markets and improves a firm's performance.

A first large group of specific capabilities can be identified in the marketing dynamic capabilities (Day, 1994; Knight, 2000), defined as the ability to adapt, integrate and appropriately reconfigure marketing tools and strategic competences to identify a value proposition for the customer and efficiently distribute it on international markets (Weerawardena, Mort, Liesch & Knight, 2007). They represent strategic capabilities as they are closely associated with the ability to supply products in an efficient way, align the offer with the solutions sought by customers, grasp market signals and sustain the competitive advantage by identifying the relevant market (Krasnikov & Jayachandran, 2008; Moretta Tartaglione & Formisano, 2018). Integration and reconfiguration of internal and external organizational skills, of resources and functional skills, including developing new products, new pricing, distribution and communication policies (Griffith, Yalcinkaya & Calantone, 2010; Bruni & Verona, 2009) allow a more efficient reaction to the changes that are taking place ever more quickly in a competitive environment (Murray, Gao & Kotabe, 2011).

Using the Uppsala model, Cunningham et al. (2012) identify other types of specific dynamic capabilities that are important for the growth in international markets: (1) the capability to identify growth opportunities and to use relevant resources both within the company and within other firms involved; (2) the capability to approach and develop different markets and countries under different circumstances (defined as the capability to internationalize); (3) the capability to build, maintain and coordinate relationships in a reticular context (also called networking capabilities or relational capabilities).

Luo (2000), on the other hand, focuses on a firm's capability to allocate and exploit its distinctive resources among geographically dispersed and globally coordinated units, defining it as the dynamic capability of resources allocation.

2.2 The Dynamic Capabilities Framework for the SMEs' Internationalization

Most of the works on the dynamic capabilities in internationalization processes study multinational enterprises (Pitelis & Teece, 2010; Teece, 2014; Chakrabarty & Wang, 2012; Gooderham, 2007; Vahlne & Johanson, 2013; Augier & Teece, 2007; Michailova; & Zhan, 2015). Other works focus on born globals (Teece, 2012, Oviatt & McDougall, 1994; Weerawardena, Mort, Liesch & Knight, 2007; Sharma & Blomstermo, 2003; Zhou, Wu & Barnes, 2012). There is instead a noticeable gap in the literature on the dynamic capabilities in the processes of internationalization of gradual global SMEs. This gap is particularly relevant because, while multinational corporations have an advantage in terms of size, resources and managerial know-how, and the born globals have an advantage in terms of superior technology, unique products and advanced marketing skills (Chen & Chen, 1998), gradual global SMEs often face several challenges such as scarcity of financial resources, difficulties in exploiting technology, limited managerial skills, limited production capacity and regulatory constraints, which are aggravated by a global system and a technology-dominated environment.

Several authors argue that SMEs constantly need to create, adapt and reconfigure their relationships and network resources in order to remain competitive in an international environment (Eberhard & Craig, 2013; Naudé,

Zaefarian, Tavani, Neghabi & Zaefarian, 2014), which means that they need to develop dynamic capabilities.

According to Prange and Verdier (2011), when analyzing dynamic capabilities for internationalization, it is necessary to distinguish between the incremental internationalization of traditional SMEs, which is supported by dynamic exploitative capabilities, and the accelerated internationalization of the born globals, which is supported by dynamic explorative capabilities. Borrowing from March (1991) the notions of exploitation versus exploration, capabilities deployed in incremental and accelerated internationalization processes are clearly different (O'Reilly & Tushman, 2007). Exploitation is mainly based on previously acquired knowledge, on local research and recycling of existing routines (Vermeulen & Barkema, 2002; Baum, Li & Usher, 2000). The aim is to reduce the uncertainty and the risks associated with internationalization (Flatten, Engelen, Zahra & Brettel, 2011) by transferring across borders business models refining existing processes, products, services and markets (Drnevich & Kriauciunas, 2011). Dynamic explorative capabilities, on the other hand, refer to exploring, risk taking, planned testing, flexibility and innovation (Prange & Verdier, 2011). They aim at exploring and exploiting new opportunities by developing new knowledge, new solutions (Shane & Venkataraman, 2000), new processes and new routines (Zahra & George, 2002). Currently, firms are increasingly facing friction between exploiting existing capabilities and exploring new ones (Raisch & Birkinshaw, 2008, Simsek, 2009). Both capabilities are essential, but combining them (ambidexterity) is a hard task. Barkema and Drogendijk (2007) suggest choosing exploration when entering culturally distant foreign markets, and exploitation for culturally closer countries.

3. Method

Through the case study of a firm from South Italy, this paper aims to analyze the role played by dynamic capabilities in the growth and success of a gradual global SME in international markets. The firm subject to study was selected based upon certain criteria: small and medium-sized - based on the EU Recommendation 2003/361; greater than 60% export percentage on total turnover; presence in several markets (at least 10 countries); continuous and consolidated presence in foreign markets for at least a decade. The study was carried out applying the triangulation technique (Yin, 2003), i.e., through gathering, analysis and comparison of multiple sources of data. Secondary data were acquired from various company documents such as the last available budget, Company Registration Report, firm's reports, website. Primary data were acquired through a semi-structured interview with the firm's Marketing Director as suggested by Yin (2003), who regards interviews as one of the most important sources of information in case studies.

The case study method is the most used in the literature on dynamic capabilities. In fact, in this field, the research is mainly qualitative and based on case studies, with just a few applied quantitative methods (Wang & Ahmad, 2007, Ambrosini & Bowman, 2009). Many authors recognize the difficulty in operationalizing dynamic capabilities (Mosakowski & McKelvey, 1997; Priem & Butler, 2001; Williamson, 1999), since this framework is considered tautological (Arend & Bromiley, 2009) or otherwise difficult to measure (Williamson, 1999). However, Eriksson (2013) and Teece (2014) argue that dynamic capabilities can be measured and several authors have tried to do so by proposing several dimensions for them, although they have been met with criticism about their validity (Wu, 2010, Protogerou, Caloghirou & Lioukas, 2012; Chang, 2012; Drnevich & Kriauciunas, 2011; Wang & Ahmed, 2007). In this paper, indicators to identify dynamic capabilities in internationalization processes have been identified and used as guide for the interview. The indicators were drawn from the work of Teece (2007), in which the author, in addition to splitting dynamic capabilities into three levels (Sensing, Seizing, Reconfiguration), identifies the nature of capabilities themselves and the firm's key activities linked to them. Identifying the key activities that characterize each type of dynamic capability allows setting indicators to measure a firm's level of implementation of those activities, built from time to time according to the research specific targets¹.

The interview has been structured in different sections: i) general information about the enterprise; ii) information about the firm's internationalization; iii) capability to sense opportunities and threats in foreign markets; iv) capability to seize opportunities in host countries; v) capability to manage threats and reconfigure itself during the internationalization process. The indicators set by transforming the key activities from the Teece model (2007) are listed in Table 1.

¹ For example, Cao (2011) uses activities identified by Teece (2007) to carry out an empirical research in the retail sector.

Table 1. Indicators used for conducting the semi-structured interview

Dynamic capabilities	Indicators
<i>Sensing</i> Sensing opportunities and threats in foreign markets	Investments in research activities Market research Information system set-up Trials and tests Use of innovative tools and techniques
<i>Seizing</i> Seizing opportunities in host countries	Offer adaptation Business model adaptation Redefining enterprise's boundaries Investments to seize sensed opportunities Decision-making errors analysis Decision-making processes redefinition
<i>Reconfiguration</i> Threats management and reconfiguration during the internationalization process	Organizational structure adjustment Organizational structure decentralization Decision-making power delegation Strategic choices about centralization and decentralization Incentives and rewards Knowledge management Co-operation with other firms Exchange of best practices with other actors

Source: adapted from Teece (2007)

4. Case Study

Isaia & Isaia S.p.A. (hereafter "Isaia") is a Neapolitan firm that operates in the men's clothing sector as clothes, sportswear and accessories manufacturer and retailer, globally recognized as a lifestyle luxury brand. Isaia is a firm with a strong family vocation, and counts 125 employees with a turnover of around 46 million euro. The company is the Global Ultimate Owner of a Corporate Group that includes five companies with a total turnover of 63 million. Isaia counts 7 shareholders, 6 subsidiaries and 10 branches in several countries. It was founded in the '20s as a fine fabrics emporium and a craft workshop. Production increased over time and the '80s led the brand to a successful process of industrialization and expansion through which the firm established itself as one of the Italian tailoring icons in the world. The garments, produced by highly specialized manpower, are divided into two main lines of business: "packaged" and "tailor-made" clothing, to ensure high product customization, and are exclusively made in Italy at the Casalnuovo di Napoli plant, in a borough of ancient sartorial traditions dating back to the Bourbon era. This strategic choice allows the company to constantly monitor each stage of the production process and oversee the product quality at all stages of production. Isaia's goal is to merge the excellence of the Hand Made in Italy (or better, as highlighted in the communication campaigns, the "Made in Naples"), the respect for tradition and the taste for innovation, preserving the image of a family-run post-artisanal firm, and identifying itself in the concept of "Contemporary tradition". On the commercial level, a selective and targeted distribution policy is pursued through the multi-brand and mono-brand wholesale channel, while the retail channel is managed via directly run stores.

Isaia sells its products almost exclusively on international markets, recording a 96% turnover in a dozen countries outside Italy, where it managed to establish itself by operating persistently and steadily since 1970. The reasons for such a pronounced internationalization are surely to be found in the stagnation of the domestic market, where the reduction in disposable income in recent years has reduced the demand for items labelled as luxury clothing, which are therefore quite expensive. The firm exports 10% of the total production to Western Europe, another 10% to Eastern Europe, 6% to Eurasia, 3% to Japan and 50% to the USA.

It had to focus on industrialized countries, and especially on those countries sharing a common dressing style, quality, sophistication and high disposable income. In each country, the company identified a segment of transnational demand characterized by a high purchasing power and a predilection for high quality clothing items (for example, a suit can cost around three thousand Euros).

A country's approachability in terms of artificial barriers and potential demand is certainly the most influential factor for the firm when choosing target countries.

The firm started establishing relations with the North American market due to its high purchasing power and a slightly similar liking for refined clothing. To begin with, Isaia launched its brand in men's luxury department stores (Saks, Barney's, Neiman Marcus, Bergdorf Goodman). Then it set up a wholly owned subsidiary (Isaia Corp.) and opened a local branch in order to quickly respond to the market and customers' needs. The choice to

entry that geographical area proved successful, and that motivated the firm to look at other markets. The search took to the East, and in particular to Japan. Initially the firm recruited an agent, and then it replicated what it did in North America by setting up Isaia Japan Ltd, a subsidiary wholly owned by the Isaia family. In any case, choosing how to enter a country takes into account available resources and risks as well as the country's features, such as distance, local distribution models, market attractiveness and country risks.

In addition to the Milan and Capri flagship stores in Italy, Isaia is present with the same distribution formula in Azerbaijan (Baku), China (Beijing, Hong Kong), Japan (Tokyo), Mongolia (Ulaan Baatar), Russia (Moscow, Yekaterinburg, Kazan, Nizhny Novgorod and Saint Petersburg), Ukraine (Kiev), United States (New York, Los Angeles and San Francisco).

Even if the company has staff dedicated to internationalization, decision making remains strongly centralized and exerted by the owners, who follow a proactive approach to strategically plan international development.

4.1 Capability to Sense Opportunities and Threats in Foreign Markets

This section of the interview aims to detect the firm's capability to sense the environment and the context in order to plan international strategies, i.e., the organizational capability to scan, filter, monitor, evaluate, interpret, understand and fine-tune opportunities and threats in foreign markets.

The study on the selected enterprise shows that Isaia relies on research to identify opportunities and threats in foreign markets. The ongoing search for and gathering of information has proved to be a key tool when choosing a destination country as well as to survive and grow in it.

Isaia runs a first search with secondary information sources for an overall survey of a country's attractiveness in terms of potential demand, consumer spending, company products' compatibility, per capita income, nature of the artificial barriers (first of all, duties). Since the firm mainly exports its products directly through single-brand stores, the main actor they gather information about is the consumer. In fact, most of the success comes from the presence in a foreign country of a satisfactory share of potential customers who can be associated with that particular transnational segment identified by the firm. Only at a later stage Isaia sends its export managers on a regular basis to the target country to identify commercial partners. In addition, the firm set up an internal information system to collect primary data and competitor analysis.

4.2 Capability to Seize Opportunities in Host Countries

This section of the interview aims to probe the organizational capability to seize potential opportunities through new products, processes or services, namely to identify the firm's strategic choices to adapt the offer according to each source of competitive advantage.

In particular, the interviewee was asked to describe the activities carried out by the company in order to put together and manage a valuable offer, calibrating the choices in relation to the competitive environment, the management and the entire enterprise; and how relevant these processes are to internationalization. To this end, particular attention has been given to factors such as business model adaptation, firm's boundaries redefinition and decision-making process enhancement.

Isaia adapts the offer to a host country by taking into account market and social factors such as employment dynamics, income availability and consumer spending, and the power of communication and new media (for example, the influence of social media on people's lives). Moreover, Isaia states to pay adequate attention to the complexity of social dynamics, such as immigration, crime, politics and the crisis of values while weighing up the choices related to the value proposition in a foreign country. As stated by Isaia's Marketing Director: "*if you want to seize opportunities in emerging countries with a relative political stability, those opportunities have to be seized upon a series of pre-assessments that lead you to a cautious management of the process with no room for improvisation. Therefore, there are opportunities but you need to act with maximum caution. If we think of a country like Ukraine, we have to take into consideration very complex social dynamics. In Turkey, we have to consider political, operational and instability risks. Therefore, we are there in less engaging ways such as the launch in the wholesale channel of a shop in shop in Istanbul*".

Since it started the internationalization process, Isaia has revised its business model several times, changing some elements and keeping others, or rather protecting them. For example, clothing for women designed by the firm in the early '60s were abandoned ten years later, when the firm began to expand across borders, allowing it to specialize and focus on producing clothing for "man". Depending on the country it entered, the firm had to adapt the cost and revenue structure and the value proposition from time to time, as well as having to identify new key partners. In addition, Isaia has created an internal e-commerce channel and set up ad hoc functions for its management. What the firm has always protected and never changed is communication - a clear, bursting,

sarcastic and self-deprecating communication. From that point of view, the firm is not very receptive to change, focusing exactly on communication as a way to obtain competitive advantages.

During the internationalization process, Isaia redefined its boundaries by adopting a lateral diversification strategy aimed at developing and producing new products linked to those already designed by the firm itself, in order to gain a greater capability to adapt to new markets. The firm, specialized in the production of outerwear, trousers and shirts, has allocated the production of knitwear, footwear and accessories to highly specialized firms, thus expanding the range of products offered and maintaining a high degree of flexibility through outsourcing to other Italian companies. The most successful diversification project on foreign markets is the "Saracino" bracelet that resembles the brand logo and is produced by a coral supplier from Torre del Greco, the coral and cameo capital of the continent. Besides being distributed through the same distribution channels, that product acts as a fashion accessory characterized by a strong image. The firm also has carried out a downstream vertical integration by opening direct stores and proprietary flagship stores, with the aim to get close to consumers and reinforce the brand image.

In order to seize market opportunities offered by host countries, Isaia has made specific investments that are decisive for the success of internationalization strategies. Those investments were mainly made in new technologies, research for specific products, production of complementary goods, and to hire or train managers for the supervision and coordination of functional activities. Those investments represent fundamental assets of dynamic capabilities: innovation, complementary assets and learning.

Isaia issued two mini bonds on the Italian stock market and used the proceeds to finance further development abroad and open direct sales points in the US (New York and Los Angeles), the United Kingdom and Japan. Investments have also been made in product innovation, improvement of the technology applied to fabrics - suede with anti-stain treatments, improved yarn and cashmere quality.

Isaia admits to having made mistakes in decision-making, mainly with regard to product pricing, customer relationships management, product offering and product standardization/adaptation. However, it claims to have reacted by increasing consultations at top management level with partners and managers of international stores, or through data analysis from market researches planned ad hoc or purchased elsewhere, in order to avoid or overcome mistakes when making decisions concerning internationalization.

4.3 Capability to Manage Threats and Reconfiguration During the Internationalization Process

This section of the interview aims to probe the firm's ability to modify activities and organizational structure through reconfiguration and continuous adaptation, according to changes in the environment.

Reconfiguration and adaptation mean the firm's ability to regularly call into question the management, the strategic choices and the organization, in order to safeguard competitiveness in turbulent and ever-changing markets through processes of adaptation and decentralization of the organizational structure, knowledge management, incentives for staff and partners, and more.

Isaia's internationalization process resulted in an organizational structure adjustment through the introduction of a marketing strategy aimed at the foreign market as well as through a rethinking of the distribution structure, as stated by the firm's Marketing Director: *"Internationalization is a long process that has to be constantly reviewed, adjusted, corrected, to try and conform to a variety of cultural, social and economic differences that required various adaptations, especially in the distribution structures. If we look at the continuous innovations in the two different realities of wholesale and retail trade, they created a need to produce an ad hoc structure that can take care of every detail, and to identify a global marketing direction overseas that has been entrusted to a manager who lives in the USA."*

The internationalization process has also required the decentralization of decision making, although Isaia has always preferred for strategic decisions to be taken by the CEO. Following international expansion, decision-making is shared with family business partners and the firm's managers, in a system where delegation and integration play an essential part. The governing body has always been intent on bringing on board managers with proven international experience. For example, the interviewee has five years of experience in the Warnaco Group, a licensee of the Calvin Klein brand where he covered the role of Export Sales Manager, and was chosen by Isaia to develop the wholesale network and strengthen the relationships within the retail business.

While centralizing most of the decisions in consideration of the structural differences of the countries in which they operate, the firm uses marketing tools, leaving some decision power to foreign subsidiaries to help them build their own relationships with local partners. To this end, Isaia has decentralized the decision-making concerning distribution channels and customer relationships. However, it deemed vital to keep decision-making

centralized with regard to logistics, brand and image, pricing, and level of product standardization or adaptation.

In order to empower the parties involved in the strategic choices on internationalization, Isaia has implemented an incentive and bonus scheme for the results achieved. It also provides its employees with a positive environment and continuous training.

For Isaia, knowledge management has proved to be crucial for the success of internationalization strategies. Isaia deems taking part in fairs and congresses very important. The firm has always been present at trade fairs such as Pitti Uomo, but in the last year it changed strategy and stopped taking part in the international fair to create an ad hoc event for its clients, to be able to "pamper" them in a direct and personal way, and show them the Isaia collection. In order to manage knowledge in an appropriate way, Isaia has allocated funds for safeguarding its intellectual property and for training courses, most of which are aimed at middle management. The Marketing Director states that *"knowledge is widespread, i.e., it is not the parent company's exclusive prerogative. The knowledge that comes from Isaia's experience and the ability to share it are factors that help also the subsidiaries' managers to undertake initiatives of cooperation in the markets in which they operate, creating a knowledge cross-fertilization that brings benefits at a global level. Moreover, the partners' experiential knowledge in "particular" markets from a cultural point of view (e.g., Russia and China) is an important factor that allows acquiring information about the actual innovative needs and in terms of demand, supporting the company's process of internationalization in similar markets and representing a resource that increases value and is strategic for the whole enterprise"*.

To overcome the difficulties associated with internationalization in a highly competitive and global environment, the firm started collaborating with other companies. Isaia has joined the Altgamma Foundation - which since 1992 brings together the cultural and creative high end of the Italian industry, companies recognized as authentic ambassadors of the Italian style in the world - and the National Chamber for Italian Fashion. Being part of such organizations increases competitiveness, widens knowledge about specific foreign markets, expands the professional network and certainly represents a key element in the internationalization process.

According to Isaia, collaboration with different actors such as managers, suppliers, local partners or even consumers, has been a great motivation to innovate logistics, human resources, image and brand.

5. Conclusions, Implications and Limitations

This paper highlights the strategic role played by dynamic capabilities in achieving competitive advantages in an economy characterized by increasingly complex, dynamic and global markets. The literature points out that dynamic capabilities are considered essential for enterprises' international development as they improve performances and results in foreign markets. However, the literature lacks empirical research on the relationship between dynamic capabilities and performance in international markets, especially with regard to gradual global SMEs.

The case study analyzed in this paper confirms the strategic role of internationalization for the survival and the growth of companies in a global environment. Internationalization, at times forced by external factors such as the contraction of the domestic market or the international competition, at others by internal reasons, is in any case a source of advancement and competitiveness but also a great challenge, to which the studied firm showed to respond to through capabilities of adaption, reaction and transformation. In the analyzed case, learning and innovation processes, relationships and collaborations, adaptations and reconfigurations were fundamental to overcome the obstacles to the internationalization process, usually caused by the limited size and scarce resources of SMEs, proving the importance of dynamic capabilities.

At the initial stage of expansion abroad, volatility, risk and lack of previous international experience have been dealt with research activities, information gathering and knowledge expansion, essential to the choice of the target markets, the way to approach them and the strategies to implement. The firm has not always been able to satisfy its need for information and knowledge on its own, so it used external sources to fill the blanks. In some cases, needed information on the relevant market was missing so reports and surveys from research institutes were purchased, consulting companies or export managers were hired, or local distributors and partners' knowledge was exploited. On other occasions, the need for information demanded a more active involvement of the firm in seeking inter-firms collaboration in the same industry. In any case, sensing capabilities allowed the firm to sense opportunities and threats in distinct markets, taking it to set out its internationalization processes during which a series of capabilities that can be related to the seizing capability category have been deployed. The firm has in fact adapted the offer according to the different markets in order to meet the local demand, thus gaining a successful position for its products.

Firm's boundaries have been redefined through diversification strategies aimed at expanding the range of products offered across borders or at protecting the firm from the typical fluctuations in demand in some sectors, and through vertical integration strategies aimed at achieving a greater contractual power and reducing sales risks. In particular, the importance of exploiting complementarities as well as of direct investments to better penetrate a local market and the neighboring ones emerged.

However, the same interviewee admits that mistakes were made in decision-making, caused mainly by excessive optimism or, at other times, by a low risk propensity. However, the company has shown also in those circumstances capability to react, scrutinize errors and revisit decision-making processes, allowing not only company's managers but also external figures such as partners and international clients to play a part in decision-making.

Lastly, the capability to transform itself was essential for the company that, although having to change its organizational structure in order to adapt to international contingencies and, in some cases, decentralize decision-making, was able to maintain its family-run nature with strong ownership centralization.

The firm's international success can certainly be attributed to the relational and networking skills developed by taking part in industry trade fairs and conventions, and through productive collaborations with other players that let Isaia access those resources, knowledge, skills, distribution channels, areas of specialization, products or complementary assets it needed but it could not, or that at least would not have been convenient to develop internally.

Thanks to these dynamic capabilities applied in the internationalization process, in the last 5 years the company has managed to increase its turnover and the number of employees by 41% and the Shareholders funds by 55%, obtaining a value of intangible assets around to 3.5 million euros.

Based on this study, we come to the conclusion that it is not possible to draw boundaries for SMEs' success in foreign markets in terms of size, resources or corporate structures if those have the dynamic capabilities to adapt, reinvent themselves, innovate and open up to the outside world. If a firm is small-sized, it can expand its boundaries through trade agreements; if knowledge is limited, it can draw on other actors' experience by developing relationships; if resources are scarce it can, for example, enter a network or implement vertical integration processes if the economic and financial situation allows it.

In short, it does not seem possible to identify in a deterministic way a virtuous path, a recipe to follow, a list of strategies to be implemented. Targets set for expansion on foreign markets can be achieved via several strategic routes (Moretta Tartaglione, 2018). It has been possible instead to identify those capabilities that marked the internationalization process of a successful SME, such as the capability to set up an information marketing system, capability to learn, orientation towards innovation, receptiveness to change, flexibility, adaptability, networking skills and ability/willingness to systematically call itself into question, breaking the established routines.

This paper provides empirical evidences about the importance of dynamic capabilities for the international growth of gradual global SMEs. However, the principal limitation of this work is that it is based on a single case study, thus not allowing the generalization of the results. Future researches are aimed at analyzing multiple case studies, maybe referred to companies belonging to different countries and sectors, in order to consider also the country of origin effect and the influence of the business sector in the investigation of the influence of dynamic capabilities on the international competitive advantage. Moreover, studying multiple cases would allow to empirically validating the indicators used in this work and attempt an operationalization of dynamic capabilities.

References

- Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews*, *11*, 29-49. <https://doi.org/10.1111/j.1468-2370.2008.00251.x>
- Arend, R. J., & Bromiley, P. (2009). Assessing the dynamic capabilities view: Spare change, everyone?. *Strategic Organization*, *7*, 75-90. <https://doi.org/10.1177/1476127008100132>
- Augier, M., & Teece, D. J. (2007). Dynamic capabilities and multinational enterprise: Penrosian insights and omissions. *Management International Review*, *47*, 175-192. <https://doi.org/10.1007/s11575-007-0010-8>
- Barkema, H. G., & Drogendijk, R. (2007). Internationalization in small, incremental or larger steps? *Journal of International Business Studies*, *38*, 1132-1148. <https://doi.org/10.1057/palgrave.jibs.8400315>
- Baum, J. A. C., Li, S. X., & Usher, J. M. (2000). Making the next move: How experiential and vicarious learning

- shape the locations of chains' acquisitions. *Administrative Science Quarterly*, 45, 766-801. <https://doi.org/10.2307/2667019>
- Bruni, D. S., & Verona, G. (2009). Dynamic Marketing Capabilities in Science-based Firms: an Exploratory Investigation of the Pharmaceutical Industry. *British Journal of Management*, 20, 101-117. <https://doi.org/10.1111/j.1467-8551.2008.00615.x>
- Buckley, P. J., & Casson, M. C. (1976). *The Future of the Multinational Enterprise*. London: Homes & Meier. <https://doi.org/10.1007/978-1-349-02899-3>
- Cao, L. (2011). Dynamic capabilities in a turbulent market environment: empirical evidence from international e from international retailers in China. *Journal of Strategic Marketing*, 19, 455-469. <https://doi.org/10.1080/0965254X.2011.565883>
- Cavusgil, S. T., & Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. *Journal of International Business Studies*, 46, 3-16. <https://doi.org/10.1057/jibs.2014.62>
- Chakrabarty, S., & Wang, L. (2012). The Long-Term Sustainance of Sustainability Practices in MNCs: A Dynamic Capabilities Perspective of the Role of R&D and Internationalization. *Journal of Business Ethics*, 110, 205-217. <https://doi.org/10.1007/s10551-012-1422-3>
- Chang, C. C. (2012). Exploring IT entrepreneurs' dynamic capabilities using Q-technique. *Industrial Management & Data Systems*, 112, 1201-1216. <https://doi.org/10.1108/02635571211264627>
- Chang, S. J., & Rosenzweig, P. (2001). The choice of entry mode in sequential foreign direct investment. *Strategic Management Journal*, 22, 747-776. <https://doi.org/10.1002/smj.168>
- Chen, H., & Chen, T. J. (1998). Network linkage and location choice in foreign direct investment. *Journal of International Business Studies*, 29, 445-467. <https://doi.org/10.1057/palgrave.jibs.8490002>
- Coviello, N. E. (2006). The Network Dynamics of International New Ventures. *Journal of International Business Studies*, 37, 713-731. <https://doi.org/10.1057/palgrave.jibs.8400219>
- Crick, D. (2009). The internationalisation of born global and international new venture SMEs. *International Marketing Review*, 26, 453-476. <https://doi.org/10.1108/02651330910971986>
- Cunningham, I., Loane, S., & Ibbotson, P. (2012). The internationalisation of small games development firms: evidence from Poland and Hungary. *Journal of Small Business and Enterprise Development*, 19(2), 246-262. <https://doi.org/10.1108/14626001211223883>
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58, 37-52. <https://doi.org/10.1177/002224299405800404>
- Drnevich, P. L., & Kraicunas, A. P. (2011). Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance. *Strategic Management Journal*, 32, 254-279. <https://doi.org/10.1002/smj.882>
- Dunning, J. H. (1981). *International production and the multinational enterprise*. London: Allen & Unwin.
- Dunning, J. H. (1988). *Explaining international production*. London: Unwin Hyman.
- Dunning, J. H., & Lundan, S. M. (2010). The institutional origins of dynamic capabilities in multinational enterprises. *Industrial and Corporate Change*, 19, 1225-1246. <https://doi.org/10.1093/icc/dtq029>
- Eberhard, M., & Craig, J. (2013). The evolving role of organisational and personal networks in international market venturing. *Journal of World Business*, 48, 385-397. <https://doi.org/10.1016/j.jwb.2012.07.022>
- Eriksson, T. (2013). Methodological issues in dynamic capabilities research – a critical review. *Baltic Journal of Management*, 8, 306-327. <https://doi.org/10.1108/BJOM-Jul-2011-0072>
- Evers, N. (2011). International new ventures in low tech sectors: A dynamic capability perspective. *Journal of Small Business Enterprise Development*, 18, 502-528. <https://doi.org/10.1108/14626001111155682>
- Fang, E., & Zou, S. (2009). Antecedents and consequences of marketing dynamic capabilities in international joint ventures. *Journal of International Business Studies*, 40, 742-761. <https://doi.org/10.1057/jibs.2008.96>
- Flatten, T. C. A., Zahra, S. A., & Brettel, M. (2011). A measure of absorptive capacity: scale development and validation. *European Management Journal*, 29, 8-116. <https://doi.org/10.1016/j.emj.2010.11.002>
- Frasquet, M., Dawson J., & Mollá, A. (2013). Post-entry internationalisation activity of retailers. *Management*

- Decision*, 51, 1510-1527. <https://doi.org/10.1108/MD-02-2013-0081>
- Gooderham, P. N. (2007). Enhancing Knowledge Transfer in Multinational Corporations: A Dynamic Capabilities Driven Model. *Knowledge Management Research & Practice*, 5, 34-43. <https://doi.org/10.1057/palgrave.kmrp.8500119>
- Griffith, D. A., Yalcinkaya, G., & Calantone, R. J. (2010). Do marketing capabilities consistently mediate effects of firm intangible capital on performance across institutional environments?. *Journal of World Business*, 45, 217-227. <https://doi.org/10.1016/j.jwb.2009.09.008>
- Hadley, R. D., & Wilson, H. I. M. (2003). The network model of internationalisation and experiential knowledge. *International Business Review*, 12, 697-717. <https://doi.org/10.1016/j.ibusrev.2003.01.001>
- Hymer, S. H. (1976). *A study of direct foreign investment*. Cambridge: MIT Press.
- Jantunen, A, Puumalainen, K., Saarenketo, S., & Kylaheiko, K. (2005). Entrepreneurial orientation, dynamic capabilities and international performance. *Journal of International Entrepreneurship*, 3, 223-243. <https://doi.org/10.1007/s10843-005-1133-2>
- Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm: a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8, 23-32. <https://doi.org/10.1057/palgrave.jibs.8490676>
- Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm – Four Swedish cases. *Journal of Management Studies*, 12, 305-322. <https://doi.org/10.1111/j.1467-6486.1975.tb00514.x>
- Katkalo, V. S., Pitelis, C. N., & Teece, D. J. (2010). On the Nature and Scope of Dynamic Capabilities. *Industrial and Corporate Change*, 19, 1175-1186. <https://doi.org/10.1093/icc/dtq026>
- Knight, G. A. (2000). Entrepreneurship and marketing strategy: The SME under globalization. *Journal of International Marketing*, 8, 12-32. <https://doi.org/10.1509/jimk.8.2.12.19620>
- Knight, G. A., & Cavusgil, S. T. (2004). Innovation, Organizational Capabilities, and the Born Global Firm. *Journal of International Business Studies*, 35, 124-141. <https://doi.org/10.1057/palgrave.jibs.8400071>
- Krasnikov, A., & Jayachandran, S. (2008). The relative impact of marketing, research-and development, and operations capabilities on firm performance. *Journal of Marketing*, 72(4), 1-11. <https://doi.org/10.1509/jmkg.72.4.1>
- Luo, Y. (2000). Dynamic capabilities in international expansion. *Journal of World Business*, 35, 355-378. [https://doi.org/10.1016/S1090-9516\(00\)00043-2](https://doi.org/10.1016/S1090-9516(00)00043-2)
- Luo, Y. (2002). Capability exploitation and building in a foreign market: Implications for multinational enterprises. *Organization Science*, 13, 48-63. <https://doi.org/10.1287/orsc.13.1.48.538>
- March, J. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87. <https://doi.org/10.1287/orsc.2.1.71>
- McDougall, P., Shane, S., & Oviatt, B. (1994). Explaining The Formation Of International New Venture: The Limits Of Theories From International Business Research. *Journal of Business Venture*, 9, 469-487. [https://doi.org/10.1016/0883-9026\(94\)90017-5](https://doi.org/10.1016/0883-9026(94)90017-5)
- Michailova, S., & Zhan, W. (2015). Dynamic capabilities and innovation in MNC subsidiaries. *Journal of World Business*, 50, 576-583. <https://doi.org/10.1016/j.jwb.2014.10.001>
- Moen, O., & Servais, M. (2002). Born Global or Gradual Global? Examining the Export Behavior of Small and Medium-Sized Enterprises. *Journal of International Marketing*, 10, 49-72. <https://doi.org/10.1509/jimk.10.3.49.19540>
- Moretta, T. A. (2018). *Le capacità dinamiche nei processi di internazionalizzazione delle PMI. Profili teorici ed evidenze empiriche*. Milano: FrancoAngeli editore.
- Moretta, T. A., & Formisano, V. (2018). A Dynamic View of Marketing Capabilities for SMEs' Export Performance. *International Journal of Marketing Studies*, 10(1), 126-136. <https://doi.org/10.5539/ijms.v10n1p126>
- Mosakowski, E., & McKelvey, B. (1997). Predicting rent generation in competence based competition. In Heene, A., & R. Sanchez (Eds.), *Competence-Based Strategic Management*. Chichester: John Wiley.
- Murray, J., Gao, G., & Kotabe, M. (2011). Market orientation and performance of export ventures: the process

- through marketing capabilities and competitive advantages. *Journal of the Academy of Marketing Science*, 39, 252-269. <https://doi.org/10.1007/s11747-010-0195-4>
- Naudé, P., Zaefarian, G., Tavani, Z., Neghabi, S., & Zaefarian, R. (2014). The influence of network effects on SME performance. *Industrial Marketing Management*, 43, 630-641. <https://doi.org/10.1016/j.indmarman.2014.02.004>
- O'Reilly, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: resolving the innovator's dilemma. *Research in Organizational Behavior*, 28, 185-206. <https://doi.org/10.1016/j.riob.2008.06.002>
- Oviatt, B. M., & McDougall, P. P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 25, 45-64. <https://doi.org/10.1057/palgrave.jibs.8490193>
- Pehrsson, T., Ghannad, N., Pehrsson, A., Chen, T. S., Erath, F., & Hammarstig, T. (2015). Dynamic capabilities and performance in foreign markets: Developments within international new ventures. *Journal of International Entrepreneurship*, 13, 28-48. <https://doi.org/10.1007/s10843-014-0139-z>
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.
- Pitelis, C. N., & Teece, D. J. (2010). Cross-border market cocreation, dynamic capabilities and the entrepreneurial theory of the multinational enterprise. *Industrial and Corporate Change*, 19(4), 1247-1270. <https://doi.org/10.1093/icc/dtq030>
- Prange, C., & Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance. *Journal of World Business*, 46, 126-133. <https://doi.org/10.1016/j.jwb.2010.05.024>
- Priem, R. L., & Butler, J. E. (2001). Tautology in the resource-based view and the implications of externally determined resource value: further comments. *Academy of Management Review*, 26, 57-66. <https://doi.org/10.5465/amr.2001.4011946>
- Protogerou, A., Caloghirou, Y., & Lioukas, S. (2012). Dynamic capabilities and their indirect impact on firm performance. *Industrial and Corporate Change*, 21, 615-647. <https://doi.org/10.1093/icc/dtr049>
- Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management*, 34, 375-409. <https://doi.org/10.1177/0149206308316058>
- Rugman, A. M. (1981). *Inside the Multinationals: The Economics of Internal Markets*. New York: Columbia University Press.
- Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. (2006). A capability perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, 31, 914-933. <https://doi.org/10.5465/amr.2006.22527465>
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *The Academy of Management Review*, 25, 217-226. <https://doi.org/10.5465/amr.2000.2791611>
- Sharma, D., & Blomstermo, A. (2003). The internationalization process of Born globals: a network view. *International Business Review*, 12, 739-753. <https://doi.org/10.1016/j.ibusrev.2003.05.002>
- Simsek, Z. (2009). Organizational ambidexterity: Towards a multilevel understanding. *Journal of Management Studies*, 46(4), 597-624. <https://doi.org/10.1111/j.1467-6486.2009.00828.x>
- Tallman, S., & Fladmore-Lindquist, K. (2002). Internationalization, globalization, and capability-based strategy. *California Management Review*, 45, 116-135. <https://doi.org/10.2307/41166156>
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28, 1319-1350. <https://doi.org/10.1002/smj.640>
- Teece, D. J. (2012). Dynamic capabilities: routines versus entrepreneurial action. *Journal of Management Studies*, 49, 1395-1401. <https://doi.org/10.1111/j.1467-6486.2012.01080.x>
- Teece, D. J. (2014). The foundations of enterprise performance: dynamic and ordinary capabilities in an (economic) theory of firms. *Academy of Management Perspectives*, 28, 328-352. <https://doi.org/10.5465/amp.2013.0116>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18, 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)
- Vahlne, J. E., & Johanson, J. (2013). The Uppsala model on evolution of the multinational business enterprise –

- From internalization to coordination of networks. *International Marketing Review*, 30, 189-210. <https://doi.org/10.1108/02651331311321963>
- Vermeulen, F., & Barkema, H. (2002). Pace, rhythm, and scope: process dependence in building a profitable multinational corporation. *Strategic Management Journal*, 23, 637-653. <https://doi.org/10.1002/smj.243>
- Villar, C., Alegre J., & Pla-Barber, J. (2014). Exploring the role of knowledge management practices on exports: A dynamic capabilities view. *International Business Review*, 23, 44. <https://doi.org/10.1016/j.ibusrev.2013.08.008>
- Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9, 31-51. <https://doi.org/10.1111/j.1468-2370.2007.00201.x>
- Weerawardena, J., Mort, G. S., Liesch, P. W., & Knight, G. (2007). Conceptualizing accelerated internationalization in the born global firm: A dynamic capabilities perspective. *Journal of World Business*, 42, 294-306. <https://doi.org/10.1016/j.jwb.2007.04.004>
- Williamson, O. E. (1999). Strategy research: governance and competence perspectives. *Strategic Management Journal*, 20, 1087-1108. [https://doi.org/10.1002/\(SICI\)1097-0266\(199912\)20:12<1087::AID-SMJ71>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199912)20:12<1087::AID-SMJ71>3.0.CO;2-Z)
- Wu, L. (2010). Applicability of the resource-based and dynamic-capability views under environmental volatility. *Journal of Business Research*, 63, 27-31. <https://doi.org/10.1016/j.jbusres.2009.01.007>
- Yin, R. K. (2003). *Case Study Research: Design and Methods* (3rd ed.). London: Sage Publications.
- Zahra, S. A. (2005). A theory of international new ventures: A decade of research. *Journal of International Business Studies*, 36(1), 20-28. <https://doi.org/10.1057/palgrave.jibs.8400118>
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27, 185-293. <https://doi.org/10.5465/AMR.2002.6587995>
- Zhou, L., Wu, A., & Barnes, B. (2012). The effects of early internationalization on performance outcomes in young international ventures: the mediating role of marketing capabilities. *Journal of International Marketing*, 20, 25-45. <https://doi.org/10.1509/jim.12.0076>

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/>).

Growing Global Demand for Cash

Sayuri Shirai^{1,2} & Eric Alexander Sugandi^{1,3,4}

¹ Asian Development Bank Institute, Tokyo, Japan

² Faculty of Policy Management, Keio University, Tokyo, Japan

³ Graduate School of Asia Pacific Studies, Waseda University, Tokyo, Japan

⁴ Institut Kajian Strategis, Universitas Kebangsaan Republik Indonesia, Jakarta, Indonesia

Correspondence: Eric Alexander Sugandi, Asian Development Bank Institute, Kasumigaseki Building 8F, 3-2-5, Kasumigaseki, Chiyoda-ku, Tokyo 100-6008, Japan.

Received: October 2, 2019

Accepted: November 19, 2019

Online Published: November 25, 2019

doi:10.5539/ibr.v12n12p74

URL: <https://doi.org/10.5539/ibr.v12n12p74>

Abstract

Demand for cash is generally known to be influenced by several factors—including transaction motive used for payment, opportunity cost, precautionary motive, and other motives (such as aging and demand from abroad). In recent years, cashless payment methods have increasingly become prevalent in the world through various conventional tools and innovative convenient financial services using mobile phones and smart phones. Nevertheless, cash in circulation has been rising in many economies, especially after the global financial crisis. This paper seeks to examine factors affecting cash in circulation for 22 economies for the period 2000–2018. It also investigated the movements of banknotes in circulation differentiated by denomination for seven economies whose data were available. The empirical analysis of this paper found that the opportunity cost proxied by the central bank policy rates and age-related variable were the two most important robust determinants for cash demand. Namely, cash demand tends to grow with a decline in the policy rates and with an advancement of aging.

Keywords: money demand, monetary policy, central bank

JEL Classification: E41, E52, E58

1. Introduction

Cash is a useful instrument for payment of goods and services and other transactions. Cash remains essential in many economies today and will likely remain relevant in the future, since cash is likely to be used often by the elderly and marginalized, low-income people. Cash becomes useful especially when natural disasters or military conflicts cause serious damage to communities and people's daily lives by generating power shortage and destruction of buildings and computer system. Thus, many central banks view that retaining some level of cash in the society could be useful, despite high cash-handling cost and prevalent cash-associated crimes.

Conceptually, cash is central bank-issued money. It is the safest, liquid payment and financial instruments for the public. Cash fulfills the following basic functions of money—that is; unit of account, means of exchange, and store of value. Cash is legal tender and an official medium of payment determined by the government through the passage of law that requires creditors to accept debt service payment in the legal tender. Cash is also used for public charges and taxes. For the public, cash remains an important means of payment, but it is increasingly being taken over by private sector-issued money, such as bank deposits and other cashless and contactless tools. Central bank-issued money consists not only of cash, but also reserve balances of financial institutions with a central bank. Cash and reserve balances constitute the liability of the balance sheets of a central bank.

Cash demand of the public is generally influenced by (1) transaction motive used for payment, (2) opportunity cost, (3) precautionary motive, and (4) other motives. Transaction motive reflects demand for cash used for payments of goods and services as well as other transactions, which is likely to strengthen with an expansion in economic activities (normally proxied with nominal gross domestic product (GDP)). The opportunity cost for holding cash is related to the financial return arising from the close substitutes of cash, such as retail deposit rates paid by commercial banks to the public or cost of holding credit cards and bank cards (such as annual fees charged for the card membership). Generally, cash utilization tends to decline as GDP per capita increases due to

greater access to bank deposits, debit cards, credit cards, and other cashless payment instruments. Moreover, the higher the opportunity cost, the lower the demand for cash becomes. As a related indicator, inflation also influences cash demand. Low inflation means that the opportunity cost of holding cash is low since the value of cash remains stable. Precautionary motive reflects demand for cash among households and firms that tend to grow at the time of financial and economic crises and/or a sharp decline in risk appetite among investors. Moreover, firms may maintain some liquidity assets in the form of cash to ensure smooth business operations even in a normal period.

Other motives include aging, tax-saving purposes, informal or illegal activities, and cash demanded from abroad. Cash is prevalent in economies with a large share of elderly population due to the habits and affinity for using cash as compared with the economies with a small share of elderly population. Some elderly people stop using credit cards after retirement. Cash demand from abroad is large for the case of the United States given that the US dollar is the most important reserve currency, invoice currency used for international trade and debt issuance, vehicle currency used for various foreign exchange transactions, as well as safe haven currency. Also, an increase in frequent foreign tourists, businesspersons, and students may raise cash demand for foreign currencies, especially when the exchange rates are perceived to be favorable (Flannigan and Parsons 2018). Thus, demand for cash tends to grow with an expansion of economic activities, a decline in the opportunity cost, an intensification of precautionary motive, and other motives. “Cash hoarding” is defined as cash lying idle that is not being utilized for payments and thus could be driven by the opportunity cost, precautionary motive, and other motives.

A central bank normally determines the amount of cash to be issued passively by responding to changes in demand for cash. Therefore, the amount of cash in circulation mainly reflects the demand-driven factors mentioned above—rather than supply-driven or issuer-side factors—and are thus beyond the control of a central bank. A central bank issues and circulates cash through the banking system by providing commercial banks with cash demanded by withdrawing the equivalent amount from their reserve balances with a central bank; these commercial banks then distribute the acquired cash to the public on demand through windows of bank branches and/or automated teller machines (ATMs). It should be noted that the conduct of monetary policy (such as open market operations) directly influences the amount of reserve balances, not the amount of cash, although monetary policy indirectly influences cash demand through adjustment of interest rates.

The value of cash is stable in an economy where a central bank successfully conducts monetary policy in accordance with the price stability mandate (mostly, specified at around 2% in advanced economies) and thus avoids substantially high inflation or serious deflation. Most of the public do not differentiate cash and retail deposits and view them as close substitutes partly because both are denominated in the same unit of account (i.e., legal tender) and partly because providers of retail deposits are regulated by tight banking regulations and deposits are guaranteed up to the certain amount per account holder set by the deposit guarantee system in many economies.

In recent years, cashless and contractless payments methods have increasingly become prevalent in the world through various conventional tools (such as credit cards, debit cards) and innovative convenient financial services using mobile phones and smart phones. Nevertheless, cash in circulation has been rising in many economies especially after the global financial crisis. The rising trend is prevalent, even in advanced economies notwithstanding that the public normally has had full access to bank accounts and credit cards for long periods of time and other cashless and contactless payment tools in recent years. The low interest rate environment appears to have affected the rising trends. Meanwhile, emerging/developing economies continue to issue cash partly because their nominal GDP growth rates have been greater than those of advanced economies. Interestingly, some emerging economies, such as China have experienced a decline in the ratio of cash in circulation to nominal GDP. This may indicate that the Chinese have gained access to the bank accounts and/or other non-bank cashless payment and financial services.

The rising trends on cash in circulation might have several impacts on monetary policy as well as the economy. On the one hand, greater cash hoarding results in the erosion of the effectiveness of monetary policy through weakening the money creation process. On the other hand, greater cash issuance increases a central bank’s income through greater seigniorage. Moreover, greater cash utilization deteriorates the efficiency in the economy owing to high cash-handling costs arising from the direct fees (i.e., cost of paper and design fees to prevent counterfeiting) and indirect cost (i.e., the security and personnel cost associated with the maintenance of cash provision and payment services by commercial banks, shops, firms, and individuals). Cash prevalence may also discourage new technology firms to enter into innovative payment and financial activities.

This paper focuses on the movements of cash in circulation by investigating demand-driven factors contributing to the movements for the period 2000–2018. The paper covers 22 economies—eleven advanced (Australia, Canada, Denmark, the Euro Area, Japan, Korea, Norway, Singapore, Sweden, the United Kingdom, and the United States), and 11 emerging/developing economies (Brazil, China, India, Indonesia, Malaysia, Mexico, the Philippines, Poland, Russia, Thailand, and Turkey). The paper is composed of five sections. Section 2 focuses on the time-series movements of cash in circulation among 22 economies for the period 2000–2018. This paper differentiates between advanced and emerging/developing economies due to the well-developed banking system in the case of former and the presence of large unbanked population in the case of latter. Section 3 highlights the movements of banknotes in circulation differentiated by denomination in the economies whose data are available—covering Canada, the Euro Area, Japan, Korea, Poland, the United Kingdom, and the United States. Section 4 provides an empirical analysis cash demand covering all the 22 economies for the period 2000–2018. Section 5 concludes.

2. Global Developments of Cash in Circulation

There are various indicators tracing the movement of cash in circulation. For example, Kiaonarong and Humphrey (2019) used four indicators to measure the cash usage for payment: cash in circulation as a ratio of nominal GDP; difference between total consumption and the amount of all non-cash payment instruments used in consumption as a ratio of total consumption; the amount of cash withdrawn from ATMs and banks' windows as a ratio to total consumption; and the amount of all cash withdrawals as a ratio to cash plus the amount of non-cash payment instruments. This paper views cash in circulation as a ratio of nominal GDP as a preferred indicator to the three other indicators since the focus of this paper is cash demand driven not only by the transaction or payment motive, but also by the opportunity cost, precautionary motive, and other motives.

The 22 economies in this study are classified as either advanced economies or emerging/developing economies because the degree of the public's access to the banking system is likely to generate different impacts on cash demand depending on the stage of economic development. While bank accounts are widely available to the public in advanced economies, the public's access to bank accounts remains limited in many emerging/developing economies. The gradual decline in the unbanked population in the latter economies may promote financial inclusion and encourage the public to shift transaction or settlement instruments from cash-based to cashless-based, thereby helping to lower the ratio of cash to nominal GDP ratio. For these economies, a decline in the cash ratio may suggest higher levels of financial inclusion, strengthened financial intermediation function of the banking system, and improved monetary policy transmission mechanism. It could be also associated with greater transparency and efficiency as a result of reduced activities in the informal economy and in illegal activities. The demand for cash will be stimulated further with an increase in the ATM networks and declined charges applicable to ATM usage and cash/debit cards.

Demand for cash by households and firms is determined largely by various motives as already pointed out in the previous section. Namely, most of these motives are heavily influenced by the pace of economic activities (which heavily influence the transaction motive), interest rates (that represent opportunity cost), the occurrence of economic/financing crises (that tend to strengthen precautionary motive), and other factors such as pace of aging and safe haven demand from abroad. Generally, households are the largest holders of cash among economic entities (such as households, firms, financial institutions, and governments) because of their frequent purchases of daily goods and services with low-value banknotes. Households are often sensitive to interest rates since ordinary/checking bank accounts are a close substitute for cash, as both such bank deposits and cash serve as payment tools for daily small-value transactions payments and serve to store value.

Following households, non-financial firms are generally the second largest holder of cash. They demand cash and cash equivalents (such as checking accounts) mainly due to intensions to maintain the flexibility in their daily transactions and business decisions related to mergers and acquisitions (M&A) and research and development (R&D). Especially when there is information asymmetry between borrowing firms and creditors, firms with a large growth opportunity or a high external funding risk tend to maintain more liquid assets rather than using uncertain external funding (Myers and Majluf 1984). For firms, a lower interest rate promotes greater cash demand due to a decline in the opportunity cost. Nonetheless, cash holdings are likely to be dominated by households, not by firms, because households often keep cash in safety boxes due to smaller amounts of cash holdings while firms often keep money in the form of cash equivalents rather than in the form of cash itself for security reasons. For example, in the case of Japan, where the data on cash holdings by types of holders are available from the flow of funds data, households' cash holdings as of the end of 2018 accounted for 80% of total outstanding cash issued, growing steadily from 53% in 2000. In contrast, the ratio of non-financial firms' holdings dropped from 37.5% to 8.6% over the period. Due to a lack of such detailed data decomposed by types

of holders for other economies, this paper examines total cash in circulation without distinguishing between households and firms.

2.1 The Case of the 11 Advanced Economies

Figure 1(1) shows the amount of cash in circulation as a percentage of GDP and Figure 1(2) shows cash in circulation in terms of the index (by setting the amount in the first quarter of 2002 being equal to 100) for the period 2000–2018 regarding the 11 advanced economies. Charts in Appendix Figure 1 show the development of these two indicators for each economy. These figures indicate that the 11 economies can be classified into the following three types of economies with regards to the trend related to cash-nominal GDP ratio: (1) economies with a rising trend, (2) economies roughly with a stable or constant trend, and (3) economies with a declining trend.

The economies with a rising trend include the Euro Area, Japan, Korea, Singapore, the United Kingdom, and the United States. The rising trend strengthened in these economies especially after economic uncertainty rose as a result of the global financial crisis of 2008–2009. Greater political/economic/financial uncertainty tends to increase the precautionary demand for cash, reflecting diminished trust in the banking system. By contrast, the economies with a declining trend in the cash-nominal GDP ratio include Denmark, Norway, and Sweden, which all have a well-developed cashless and contactless payment system. The economies with a more or less stable trend include Australia and Canada. Regarding the amount of cash in circulation, all the advanced economies except Sweden and Norway experienced a rising trend, reflecting transaction motive of cash demand. The amount of cash in circulation has grown fast in the Euro Area since the early 2000s, details of which will be discussed later. Since the global financial crisis, Korea showed a faster growth in the amount of cash in circulation. In sharp contrast, a declining trend began in Sweden from 2009 and in Norway recently from 2017.

Among the advanced economies, it is noted that Japan's cash-nominal GDP ratio has always exceeded other economies by a wide margin and has even increased to around 20% recently, further widening the gap. Japan's high cash demand may reflect that cultural habits such as high levels of public trust in the stable government and legal tender in the face of persistently-low inflation. In addition, the Bank of Japan has performed a series of unconventional monetary easing measures since the late 1990s, ranging from the zero interest rate policy in 1999–2000, to Quantitative Easing in 2001–2006, and further to Comprehensive Monetary Easing from 2010, which was then replaced in April 2013 by the Quantitative and Qualitative Monetary Easing (Shirai, 2018). Japan's intensified demand for cash in recent years might also be driven by tax-saving incentives motivated as a result of various government tax-raising measures: (a) an inheritance tax hike in January 2015; (b) an adoption of a compulsory reporting system requiring residents to submit information on detailed foreign assets to the National Tax Authority in 2014 if exceeding 50 million yen; and (c) an adoption of a compulsory reporting system requiring individuals to submit detailed information about domestic financial/non-financial assets and debts to the National Tax Authority in 2016. The government also introduced the "My Number" system in 2015, providing all the residents with an individual identification number for social security, tax payments, remunerations, financial investment, and other government records. Nonetheless, the growth rate of cash in circulation has declined recently partly due to the higher penetration of cashless payment instruments, although the cash growth rates have remained above the rates of nominal GDP growth.

In the case of the Euro Area, the circulation of euro banknotes (and coins) began at the end of 2001 and those euro banknotes (and coins) became legal tender in 2002. Demand for euro banknotes appears to have increased gradually as the public gained confidence over the common currency euro as well as monetary policy conducted by the European Central Bank (ECB), as evidenced by the steady increase in the amount of euro in circulation. ECB conducted monetary easing after the global financial crisis and a series of innovative unconventional monetary easing especially from 2014—including negative interest rate policy, Targeted Long-term Refinancing operations (TLTRO I and II), and large-scale asset purchase program. The resultant declining interest rates made cash holding more attractive than before. ECB terminated the asset purchase program at the end of December 2018, announced a continuation of the reinvestment strategy to maintain the outstanding amount of asset holdings, and presented a plan to conduct the first hike on policy rates within 2019. However, economic slowdown in the region and declines in the rates of inflation and inflation expectation forced the ECB to shift its monetary policy stance from a move toward normalization to a move toward accommodation since early 2019. ECB, thus, postponed the planned timing to raise policy rates and made the decision to adopt the new TLTRO III in March 2019 with the effect from September 2019. In September 2019, furthermore, ECB reduced the negative interest rate from -0.4% to -0.5%, and also decided to resume asset purchase program with effect from November 2019. These series of enhanced monetary easing measures may promote further demand for cash.

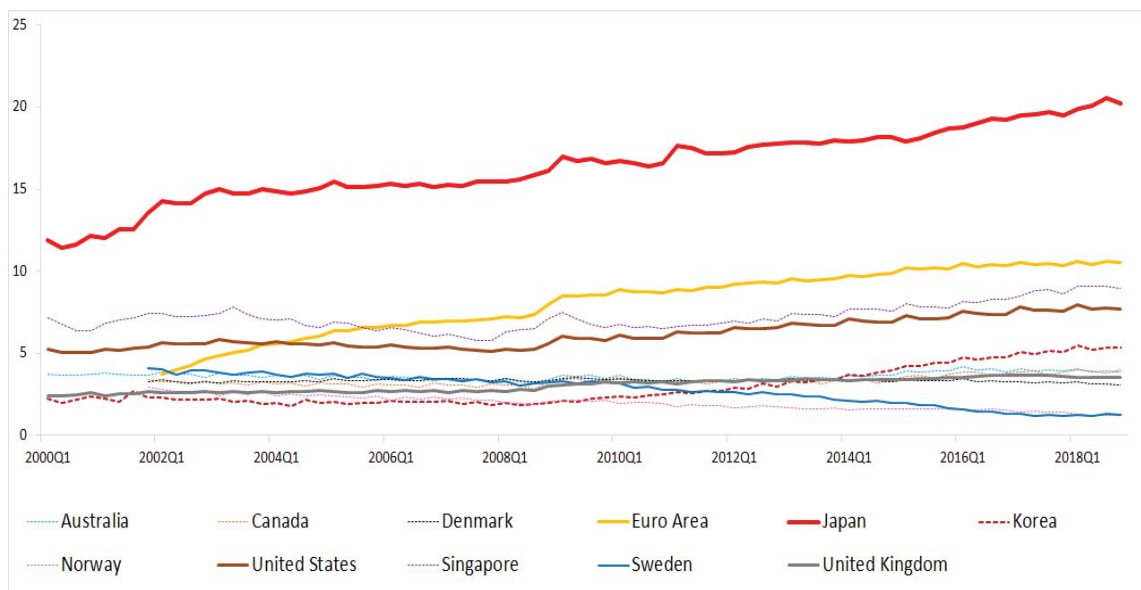


Figure 1(1). Cash in Circulation (% of Nominal GDP) in the Advanced Economies

Source: CEIC, Bank of Canada, and Bank of England

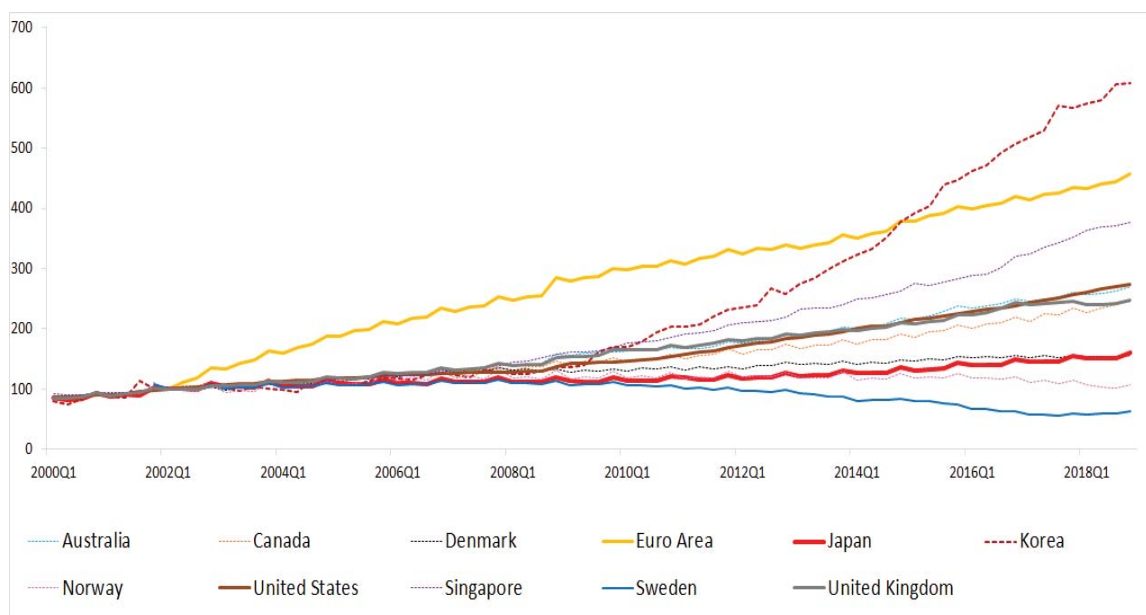


Figure 1(2). Amount of Cash in Circulation in the Advanced Economies (2002 Q1 =100)

Source: CEIC, Bank of Canada, and Bank of England

The United Kingdom has also faced a moderate increase in the ratio of cash to nominal GDP even though the economy is more advanced in terms of new cashless, contactless retail payment systems compared with other advanced economies. The economy had already adopted a retail Faster Payments Scheme in 2008 as a banking sector initiative to accelerate payment times between different banks' customer accounts from three working days to a few seconds. Nevertheless, cash in circulation continues to grow in the United Kingdom. The low interest rate environment generated by the monetary easing by the Bank of England and other major central banks appear to have contributed to greater cash demand. The first quantitative easing was announced in late 2009, expanded further in 2012, and resumed in August 2016 for a short while after the surprise 23 June 2016 Brexit referendum result. Simultaneously, the Bank of England, after having maintained the policy rate at 0.5%

from 2008, decided to lower it to 0.25% in August 2016 to cope with expected economic slowdown. Resilient economic performance subsequently led to an increase in the policy rate back to 0.5% in November 2017 and further to 0.75% in August 2018. Since early 2019, the greater concerns related to Brexit and uncertainty related to internal politics have undermined the British economy and households' and firms' sentiments. This may increase precautionary demand for cash.

In the case of the United States, the cash-nominal GDP ratio continued to rise even after the Federal Reserve increased the federal funds rate nine times from 0–0.25% to 0.25–0.5% in December 2015 to 2.25–2.5% in December 2018 in the process of monetary policy normalization. This happened even though households are using cash less frequently than the past. According to the 2018 Diary of Consumer Payment Choice by the Federal Reserve, Kumar and O'Brien (2019) found that individuals used cash in 26% of transactions (down from 30% in 2017 and 31% in 2016), while credit cards and debit cards accounted for 23% (rose from 21% in 2017 and 18% in 2016) and 28% (rose from 26% in 2017 and 27% in 2016), respectively. Prepaid and electronic instruments remained unpopular, accounting for only 2%–3% and 10%–11% over the same period, respectively. Surprisingly, the share of cash use among individuals under 25 years old was the highest (34%) of any age group, slightly higher than those aged 55 years old and above. In early 2019, the Federal Reserve has shifted the monetary policy stance from normalization to an accommodative one by abruptly stopping the interest rate normalization process and advancing the timing to end the balance sheet run-off (so-called "balance sheet tightening") from the end of 2019 to the end of September 2019. In July 2019, the Federal Reserve officially ended the balance sheet runoff earlier than scheduled and cut the federal funds rate by 25 basis points from 2.25%–2.5% to 2%–2.25% for the first time since 2008. The rate was further cut by 25 basis points in September and October 2019, reaching 1.5%–1.75%. These accommodation policies are expected to lead to stronger demand for cash in the economy.

In sharp contrast to Japan, the Euro Area, the United Kingdom, and the United States, Sweden exhibits a completely different pattern. Sweden progressed to become the most-advanced cashless society among the 11 advanced economies examined because of the declining trend concerning the cash-nominal GDP ratio and the amount of cash in circulation. Credit cards and a mobile-phone-based fast payment system called Swish have been widely available for some time. The pace of decline in the cash-nominal GDP ratio accelerated since 2008, which is contrary to the movements observed among other advanced economies. It should be noted that the Swedish cash-nominal GDP ratio continued to drop, even after a negative interest rate policy was adopted on the repo rate in February 2015 and was deepened gradually toward -0.5% by February 2016 and maintained the same rate until the rate was raised to -0.25% in January 2019 as part of monetary policy normalization. This indicates that a negative interest rate policy did not promote substitution from bank deposits to cash.

2.2 The Case of the 11 Emerging/Developing Economies

The cash-nominal GDP ratios and the amount of cash in circulation in the case of the 11 emerging economies/developing economies are shown in Figure 2(1) and 2(2), respectively. Charts in Appendix Figure 2 show developments with regards to the two indicators for each economy. While all the 11 economies recorded roughly a secular rising trend from early 2000s concerning the number of banknotes in circulation, divergent movements were observed with regards to the ratio of cash-nominal GDP ratios. The economies with a rising cash-nominal GDP ratio include Mexico, the Philippines, Poland, and Thailand. Their rising trend prevailed from early 2000s. The economies with the declining cash-nominal GDP ratio include China from early 2000s and Turkey since 2017. India experienced a sharp drop in the amount and the ratio in October–November 2016 due to the impact of the demonetization currency reform as mentioned below. Finally, the economies with the more or less stable cash-nominal GDP ratio include Brazil, Indonesia, Malaysia, and Russia.

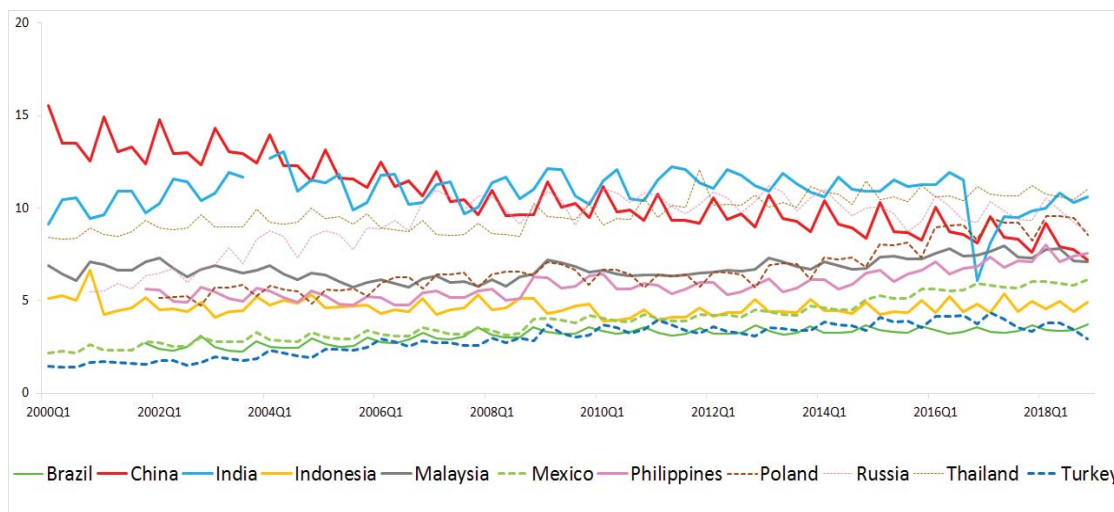


Figure 2(1). Cash (% of Nominal GDP) in the Emerging/Developing Economies

Source: CEIC

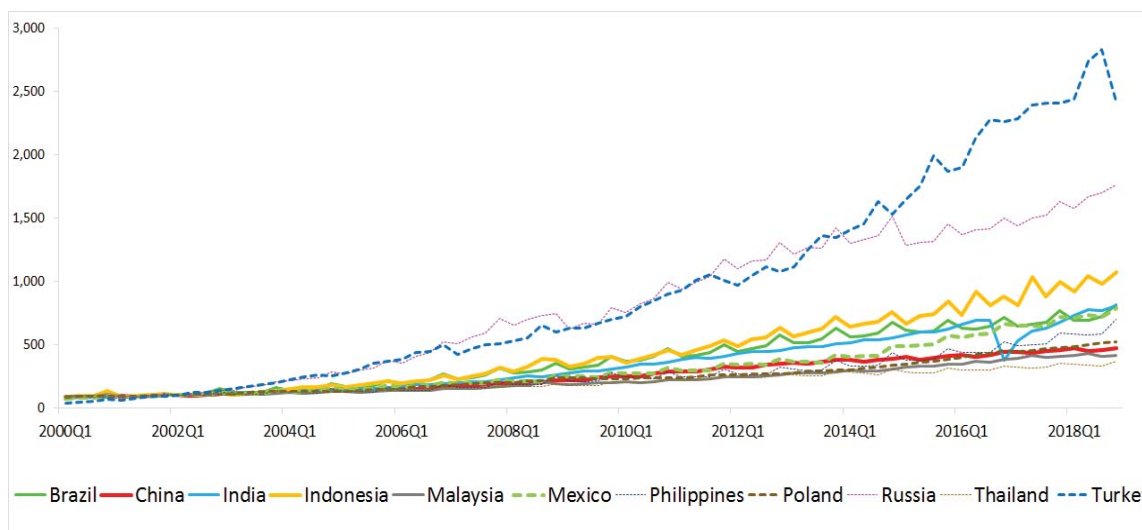


Figure 2(2). Amount of Cash in Circulation in the Emerging/Developing Economies (2002 Q1=100)

Source: CEIC

In particular, a secular declining trend in the cash-nominal GDP ratio in China is noticeable. This is likely to reflect a shift in the form of money held by the public from cash to bank deposits and/or other cashless payment tools (such as Alipay or WeChat Pay). This is in line with the deepening of the banking system and an increase in the number of depositors with commercial banks. Meanwhile, India’s cash–GDP ratio remained stable until the fourth quarter of 2016, suggesting that India’s cash growth is associated more or less in line with transaction demand growth. A sharp drop in the ratio in India happened temporarily in 2016 after the government abruptly implemented a currency reform that triggered a temporary shortage of banknotes in circulation. India’s government banned the Rs100 and Rs500 banknotes and instead introduced a new Rs500 note for the first time and issued new Rs2,000 banknotes. This currency reform was meant to fight corruption and anti-money laundering/illegal activities, but it created severe disruptions to economic activities as a result of creating serious cash shortages. While the cash ratio recovered somewhat in the following year, it appears that the ratio has been lower than the past trend, suggesting a moderate shift from cash to bank deposits or cashless payment tools.

Many emerging/developing economies have increasingly reduced cash usage for payments of goods and services

and other transactions in recent years. This is because payment systems are currently experiencing rapid innovation and transformation with the increasing number of technology companies and financial institutions being involved as payment providers. Many governments also encourage the use of electronic payment instruments to improve efficiency in the payment systems. Nevertheless, cash demand remained strong in many economies with the exception of China.

3. Outstanding Banknotes Issued Differentiated by Denomination in Selected Economies

Demand for high-denomination banknotes is likely to be associated more with cash hoarding. Such demand may have become more important during the times of the global financial crisis, since concerns about the solvency of financial institutions might have prompted depositors to withdraw their funds from commercial banks or other equivalent money market funds to increase their precautionary holdings of banknotes (Cusbert and Rohling 2013). Demand for high-denomination banknotes of international reserve currency might be increased by the increased number of foreign tourists, businesspersons, and students who frequently visit the economy under investigation. High-denomination banknotes are also preferred by the people who wish to materialize flight to safety investment. Demand for higher-denomination banknotes could be associated more negatively with changes in interest rates (Arango-Arango and Suarez-Ariza, 2019). Regarding payment tools, non-cash payment tools such as credit cards are more frequently used for high-value purchases such as home electronics, furniture, expensive clothes, etc. On the other hand, low-denomination banknotes are more often used for lower-value purchases such as food and beverages. The expansion of ATM networks may increase demand for lower-denomination banknotes because of the increased frequency of trips to withdraw small numbers of banknotes.

3.1 Economies with Greater Demand for Highest-Denomination Banknotes

The consistent time-series data on the number of outstanding banknotes issued classified by denomination are available for seven economies—Canada, the Euro Area, Japan, Korea, Poland, the United Kingdom, and the United States. Figure 3 exhibits the annual time-series developments of outstanding banknotes issued differentiated by denomination for these economies for the period 2000–2018. These seven economies can be classified into two groups: the first group with dominant largest-denomination banknotes (Japan, Korea, and the United States) and the other group with dominant middle-denomination banknotes (Canada, the Euro Area, Poland, and the United Kingdom).

Regarding the first group, the outstanding issuance amount of the largest 10,000-yen note has always been largest over the observation period in Japan (Figure 3(1)). In addition, the pace of issuance increased further since 2013 when the Bank of Japan adopted the Quantitative and Qualitative Monetary Easing. Meanwhile, Korea began to circulate the 50,000 won in June 2009 as the largest-denomination banknote and since then the outstanding amount issued rose rapidly (Figure 3(2)). The United States experienced a rapid rise in the issuance outstanding amount concerning the \$100 note since the global financial crisis (Figure 3(3)). In both Korea and the United States, the amounts of the largest-denomination banknotes exceeded those of smaller-denomination banknotes recently. Consequently, the figures related to Japan, Korea, and the United States indicate the presence of high and rising demand for cash holdings since large-denomination banknotes are best suited for this purpose.

In the case of Japan, the dominant issuance amount of the 10,000-yen note could be attributed to the increase in cash hoarding driven by downward pressures in interest rates (and low rate of inflation even after massive monetary easing) as well as intensified tax-saving motives mentioned earlier. Otani and Suzuki (2008) estimated cash hoarding by choosing 1995 as the base year, assuming that transaction motive was present, but no cash hoarding was present, thus regarding the difference between the total 10,000-yen banknotes in circulation and that of the base year as the estimated amount of cash hoarding. Fujiki and Nakashima (2019) assumed that cash hoarding took place only in the form of the 10,000-yen banknote and thus estimated cash hoarding from the difference between all the units of 10,000-yen issued and the estimated transaction motive proxied by the movement of the 1,000-yen banknote (major note used in daily transactions). The paper concluded that about 40% of banknotes in circulation were attributed to cash hoardings, provided that the hoarding of 10,000-yen banknotes began in 1995.

Regarding the United States, the rapidly rising trend of the US\$100-note issuance especially after the global financial crisis is noted. The amount of the US\$100 note issue exceeded that of the US\$20 note and all other denominates except the US\$1 note (the most frequently used note in daily transactions) in 2009 and finally exceeded even the amount of the \$1 note in 2017. There has been no sign of reversal of these trends. According to the 2017 Diary of Consumer Payment Choice (DCPC) conducted by the Federal Reserve, Greene and Stavins (2018) found that the average value of a cash transaction was only \$23, compared with \$109 for the average

non-cash transaction (and \$83 for all transactions). From the 2018 DCPC, Kumar and O’Brien (2019) pointed out that cash represented 50% of transactions under \$10 representing and 42% of payments less than \$25. In contrast, cash is used for approximately 10% of payments \$25 and higher. This suggests that consumers evaluated cash highly for being low cost and easy to use. Cash is also an important payment option for low-income households because of the difficulty to obtain credit cards or the high annual charges associated with credit cards.

Several studies pointed out that the rising trend of US\$100 issuance is attributable not to only domestic demand but also to foreign demand, which regards the US dollar as a safe haven currency, especially from emerging/developing economies with unstable financial systems and weak macroeconomic fundamentals (Haasl, Schulhofer-Wohl, and Paulson 2018; Judson 2017). High demand for the banknotes from abroad is unique to the case of the US dollar, given the dominant status of the US dollar in various cross-border transactions. Foreign holdings of the US dollar banknotes take place through immigrants or tourists’ or other cash flows especially from the United States to Mexico, as well as other commercial banking and non-banking cross-border cash transfer channels. Judson (2017) found that foreign demand for the US dollar has increased from the 1990s to early 2000s—a period that coincided with external uncertainties (such as the fall of the Berlin Wall, the collapse of the Soviet Union, and several economic and political crises in Latin America). After such demand stabilized, the global financial crisis has given rise to renewed demand for US dollar banknotes and rising demand continues until the present. Judson also estimated that such foreign demand has accounted for more than 60% of all US dollar banknotes and nearly 80% of \$100 banknotes.

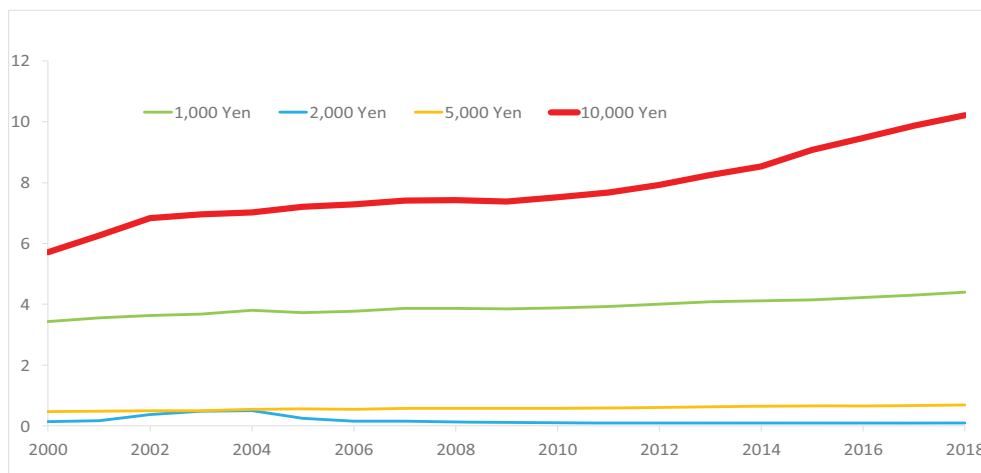


Figure 3(1). Banknotes Issued by Denomination in Japan (Unit: Billions)

Source: CEIC

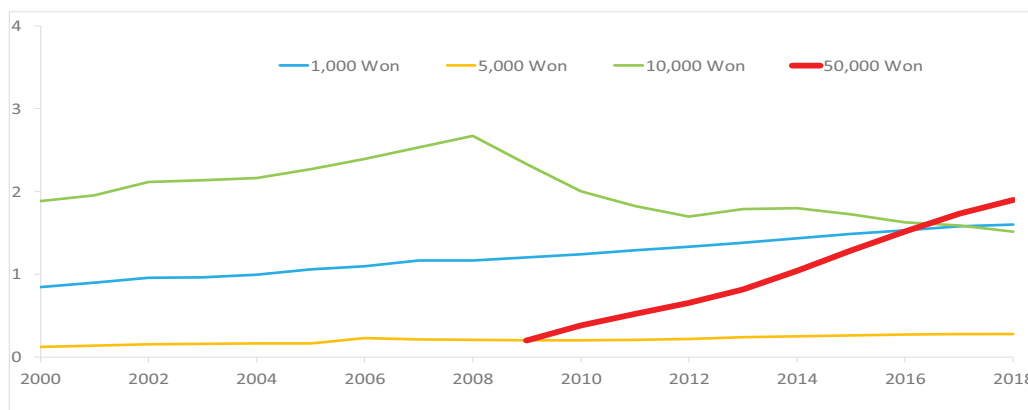


Figure 3(2). Banknotes Issued in Korea by Denomination (Unit: Billions)

Source: CEIC

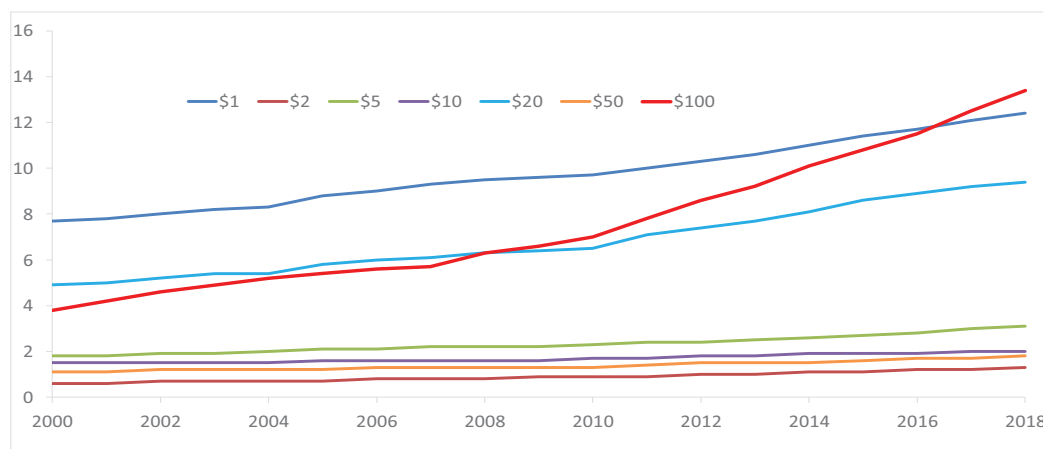


Figure 3(3). Banknotes Issued in the United States by Denomination (Unit: Billions)

Source: CEIC

3.2 Economies with Greater Demand for Middle-Value Banknotes

As for the second group, the outstanding amount issued over medium-denomination banknotes has dominated that of other larger-denomination and small-denomination banknotes. This is because the public use cash only for lower-value transactions and use credit cards or other cashless payment tools for higher-value transactions. For example, Canada has used the 20 Canadian dollar banknotes dominantly over the period and the gap between it and the largest-denomination (100 Canadian dollar) banknotes has remained large (Figure 3(4)). The Euro Area was dominated by the €50 banknote, followed by the €20 banknote so that the outstanding amounts issued of the €500 banknote, the €200 banknote, and the €100 banknote remained small (Figure 3(5)). In Poland, the value of outstanding issued 100 Poland zloty banknote has been dominant and has widened the gap with that of the 500 and the 200 Poland zloty banknotes (Figure 3(6)). In the United Kingdom, the outstanding amount issued on the £100 banknote has remained dominant and the gaps with the larger-denomination £500 banknote and £200 banknote have expanded over time (Figure 3(7)).

In the case of the Euro Area, the outstanding amount issued on the €500 note issued was never large as compared to other smaller-denomination banknotes such as the €50 and the €20 banknotes despite the adoption of various unconventional monetary easing tools including the large-scale asset purchase program and the negative interest rate policy. It may be related to the fact that the residents in the Euro Area maintained smaller-denomination banknotes for daily transactions and did not increase precautionary demand for cash. The ECB conducted a survey in 2016 to analyze the use of cash, cards, and other payment instruments used at points of sale (POS) by Euro Area households (Esselink and Hernández 2017). The survey results indicated that nearly two-thirds of the transactions were below €15. Moreover, two-thirds of all transactions took place in shops for purchases of day-to-day items, as well as in restaurants, bars, and cafés. On the other hand, only 8% of all transactions were above €50, and only 14% were made in shops for durable goods or in petrol stations. The report stated that access to payment cards could not be a major factor in explaining the payment behavior due to there being high access on average in the region; nevertheless, a negative relationship appeared to exist between card acceptance and cash usage. The limited usage of the €500 note indicates that the adverse impact of the ECB's decision in 2016 to stop printing the €500 note from the end of April 2019 (although continuing to circulate in the economy as legal tender) had limited impact on the economy.

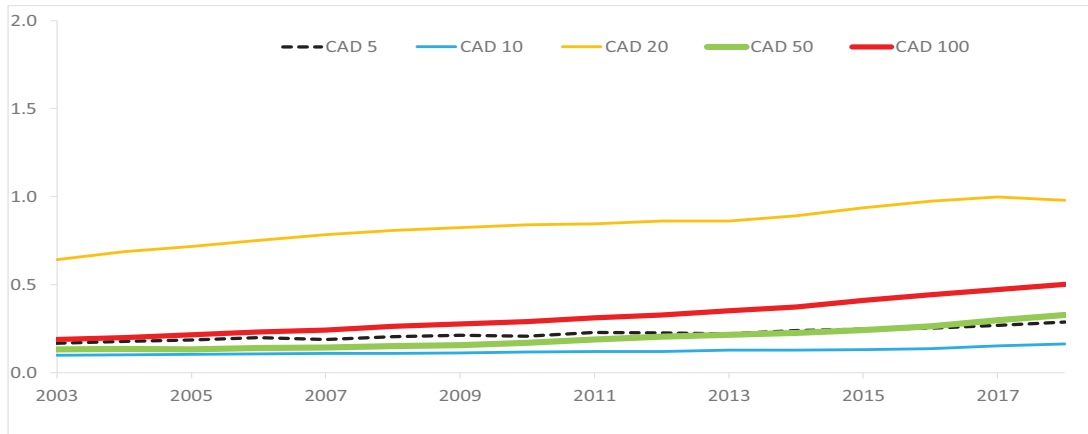


Figure 3(4). Banknotes Issued by Denomination in Canada (Unit: Billions)

Source: CEIC

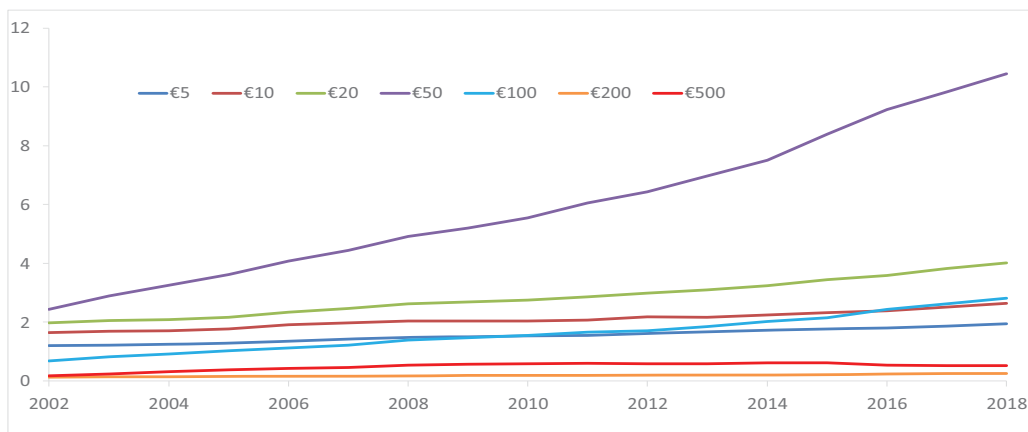


Figure 3(5). Banknotes Issued by Denomination in the Euro Area (Unit: Billions)

Source: CEIC

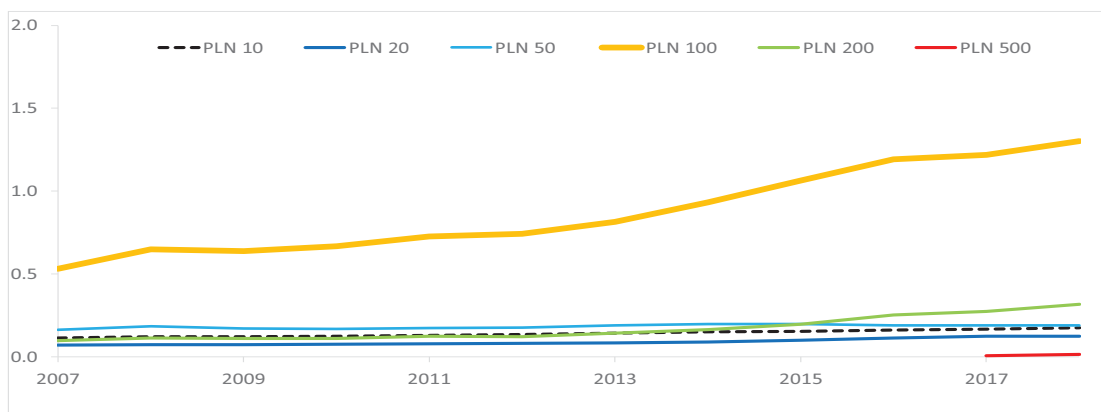


Figure 3(6). Banknotes Issued by Denomination in Poland (Unit: Billions)

Source: CEIC

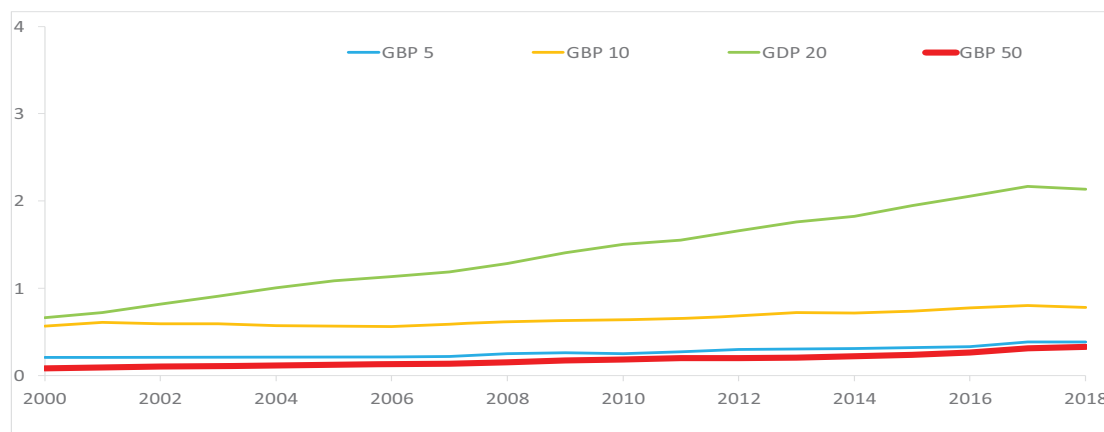


Figure 3(7). Banknotes Issued by Denomination in the United Kingdom (Unit: Billions)

Source: CEIC

4. Empirical Analysis on Cash Demand in Advanced and Emerging/Developing Economies

This section develops several econometric models and conducts pooled-data regressions for the 22 economies based on the following generic equation:

$$CASH_{i,t} = \alpha + \beta_1 INTEREST_{i,t} + \beta_2 AGE_{i,t} + \beta_3 CRISIS_{i,t} + \varepsilon_{i,t}$$

Cash in circulation to nominal GDP ratio for CASH is set as the dependent variable. Among independent variables, the central bank policy interest rate (INTEREST) or the yield of the benchmark 10-year yield (10-YEAR) is used to capture the opportunity cost. As for the precautionary motive, crisis dummy variable (CRISIS) is adopted, where the variable is set equal to one during the IT bubble burst in early 2000 (from the second quarter of 2000 to the third quarter of 2001) and the global financial crisis (from the second quarter of 2007 to the first quarter of 2009), and zero otherwise. As age-related factors, AGE is used interchangeably with log (LIFE). The logarithmic form is used for LIFE to enable measuring the impact of its change on the dependent variable in a percentage term. The term i refers to country index, while t refers to time index. $\varepsilon_{i,t}$ refers to the error term for the respective economy. The Hausman test is conducted to select the appropriate form (between the random-effect or fixed-effect) for each model.

The signs of parameters in the model are expected to be negative for INTEREST and 10-YEAR and positive for AGE, log (LIFE), and CRISIS. An increase in the INTEREST (or the 10-YEAR) variable is expected to reduce demand for cash, as an interest rate increase implies rising opportunity cost of holding cash. The increase in the AGE (or log(LIFE)) variable is expected to increase demand for cash, as the elder cohort prefer to hold cash than the younger ones due to habitual or affinity reasons. A crisis is expected to increase households' demand for cash due to precautionary reason.

Table 1 shows the results of the models with relatively good performance: Model (1), with INTEREST and AGE as independent variables; Model (2), with INTEREST and log (LIFE) as independent variables; and Model (3), with 10-YEAR and log (LIFE) as independent variables. Table 1 does not display models that incorporate the CRISIS variable, as it was not statistically significant in the models; this implies that crisis was not a major determinant for cash hoarding once covering the 22 economies in the sample.

Results from Model (1) exhibited that INTEREST and AGE were statistically significant, with a negative sign on INTEREST and a positive sign on AGE. These signs were in line with the hypotheses. This suggests that for the 22 economies combined, the central bank policy rate hike reduced demand for cash, while an increase in the ratio of elderly population increased demand for cash. Both INTEREST and log (LIFE) were statistically significant in Model (2). The parameter sign for INTEREST was negative, while positive for log (LIFE) — in line with the hypotheses. Similar to Model (1), demand for cash increased when life expectancy rose, but it fell when the policy rates increased. As proxy for opportunity cost, 10-YEAR was less robust than INTEREST as a regressor in the pooled-data models. Results from Model (3) showed that the 10-YEAR and log (LIFE) variables were statistically significant, with a negative sign for 10-YEAR and positive for log (LIFE). Yet, in the model using 10-YEAR and AGE as independent variables, it turned out that 10-YEAR was not statistically significant, while AGE remained statistically significant.

Table 1. Pooled-Data Regression Results for the 22 Economies
(Probability of t-statistics in bracket, * = significant at 5% significance level)

MODEL 1		MODEL 2		MODEL 3	
Constant	1.7877* (0.0346)	Constant	-64.4437* (0.0000)	Constant	-72.7090* (0.0000)
INTEREST (%)	-0.0162* (0.0000)	INTEREST (%)	-0.0122* (0.0000)	10-YEAR (%)	-0.0652* (0.0000)
AGE (%)	0.3811* (0.0000)	Log (LIFE)	17.2276* (0.0000)	Log (LIFE)	18.2785* (0.0000)
Random Effects Coefficients (Cross)		Fixed Effects Coefficients (Cross)		Fixed Effects Coefficients (Cross)	
_Australia	-3.9408	_Australia	-3.5006	_Australia	-3.7631
_Canada	-4.8990	_Canada	-3.7581	_Canada	-4.0857
_Denmark	-0.6594	_Denmark	-3.3173	_Denmark	-3.6377
_Euro Area	6.1656	_Euro Area	1.0526	_Euro Area	0.6967
_Japan	-2.8132	_Japan	8.7332	_Japan	8.2646
_Korea	-5.6550	_Korea	-3.9400	_Korea	-4.2019
_Norway	1.8051	_Norway	-5.0321	_Norway	-5.7552
_Singapore	-6.0034	_Singapore	0.0783	_Singapore	-0.4282
_Sweden	-5.1291	_Sweden	-4.2778	_Sweden	-5.1914
_Utd. Kingdom	-0.6614	_Utd. Kingdom	-3.7920	_Utd. Kingdom	-4.0926
_United States	-1.0866	_United States	-0.3497	_United States	-0.6184
_Brazil	5.6836	_Brazil	-2.1657	_Brazil	-1.9685
_China	7.2645	_China	5.1633	_China	3.6757
_India	0.9613	_India	7.4676	_India	7.5922
_Indonesia	2.9679	_Indonesia	0.3533	_Indonesia	0.7204
_Malaysia	0.5760	_Malaysia	1.0694	_Malaysia	0.9763
_Mexico	2.5939	_Mexico	-1.5151	_Mexico	-1.3618
_Philippines	-0.3385	_Philippines	1.6567	_Philippines	1.7516
_Poland	3.1243	_Poland	0.6448	_Poland	0.4499
_Russia	4.6195	_Russia	5.3306	_Russia	5.5561
_Thailand	-1.2731	_Thailand	4.3703	_Thailand	4.1772
_Turkey	-1.0866	_Turkey	-2.2893	_Turkey	-1.9811
Weighted Statistics					
<i>R-squared</i>	0.2855	<i>R-squared</i>	0.9515	<i>R-squared</i>	0.9618
<i>Adj. R-squared</i>	0.2845	<i>Adj. R-squared</i>	0.9506	<i>Adj. R-squared</i>	0.9611
<i>Prob (F-stats.)</i>	0.0000*	<i>Prob (F-stats.)</i>	0.0000*	<i>Prob (F-stats.)</i>	0.0000*

Source: Authors' calculations

5. Conclusion

This paper focused on the movements of cash in circulation by investigating demand-driven factors contributing to the movements for the period 2000–2018. It focused on the time-series movements of cash in circulation (both in terms of the amount and nominal GDP) among 22 economies for the period 2000–2018. The results of the analysis can be summarized as follows:

- Among the 11 advanced economies with regards to the trend related to cash-nominal GDP ratio, there were economies with a rising trend (the Euro Area, Japan, Korea, Singapore, the United Kingdom, and the United States), economies roughly with a stable or constant trend (Australia and Canada), and economies with a

declining trend (Denmark, Norway, and Sweden). Regarding the economies with a rising trend, the rising pace accelerated especially after the economic uncertainty rose as a result of the global financial crisis of 2008–2009. As for the amount of cash in circulation, all the economies except Sweden from 2009 and Norway from 2017 showed a secular rising trend. In particular, Japan's substantially high and rising cash-nominal GDP ratio is noticeable, perhaps reflecting the public's trust in the stable government and legal tender in the face of persistently-low inflation; a limited number of crimes associated with cash handlings and counterfeiting; and, the highest proportion of the elderly in total population.

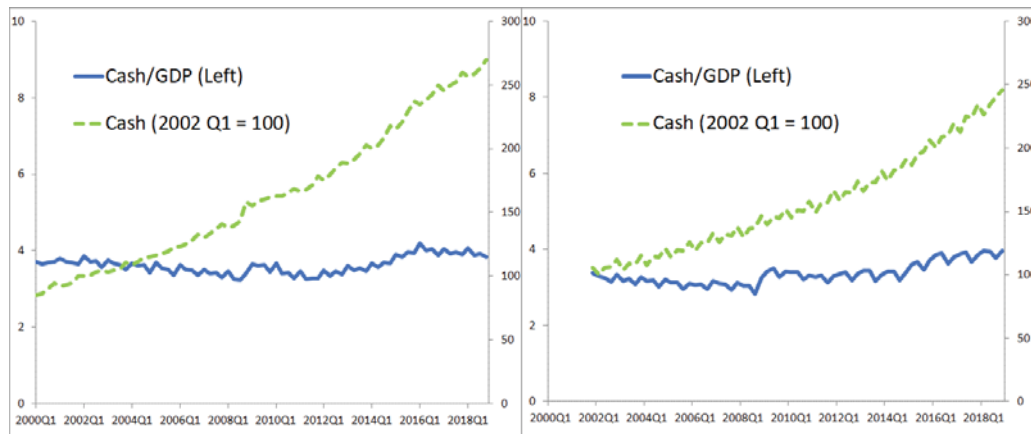
- As for the 11 emerging/developing economies, all the economies recorded the secular rising trend from early 2000s concerning the amount of cash in circulation. Some divergent movements were observed with regards to the ratio of cash-nominal GDP ratios. The economies with the rising cash-nominal GDP ratio included Mexico, the Philippines, Poland, and Thailand—all growing from early 2000s. Meanwhile, the economies with the declining cash-nominal GDP ratio included China from early 2000s and Turkey since 2017. India experienced a sharp drop in the amount and the ratio in October–November 2016 due to the impact of the demonetization currency reform. Finally, the economies with a more or less stable cash-nominal GDP ratio included Brazil, Indonesia, Malaysia, and Russia.
- With regards to the seven economies where data on banknotes in circulation differentiated by denomination are available, the economies were found to be classified into two groups: economies with dominant highest-denomination banknotes (Japan, Korea, and the United States) and economies with lower-denomination banknotes (Canada, the Euro Area, Poland, and the United Kingdom). The former group may indicate the presence of high and rising demand for cash hoarding since high-denomination banknotes are best suited for this purpose. In addition, the rising trend of the highest denomination, US\$100, could be attributable not to only domestic demand-driven factors but also to foreign demand that regards the US dollar as a safe haven currency. As for the second group, the outstanding amount issued over medium-denomination banknotes has dominated that of other higher-denomination and lower-denomination banknotes. This is because the public use cash only for lower-value transactions and use credit cards or other cashless payment tools for higher-value transactions.
- This paper found empirically that the low interest rate environment generated by massive monetary easing contributed to increasing demand for cash based on the data including advanced economies and emerging/developing economies. Age-related factors were also found to be important contributor to higher cash demand. As a future topic, it will be interesting to examine whether demand for cash will decline if stable crypto assets such as Facebook's Libra—which will stabilize the value against the basket of reputable, fiat currencies such as the US dollar— become widely used in the world.

References

- Arango-Arango, C. A., & Suarez-Ariza, N. F. (2019). Digital payments adoption and the demand for cash: New international evidence. *Borradores de ECONOMIA*, 1074, 1-23. Banco de la Republica de Columbia. <https://doi.org/10.32468/be.1074>
- Cusbert, T., & Rohling, T. (2013). Currency demand during the global financial crisis: Evidence from Australia. *RBA Research Discussion Paper, RDP 2013-01*, 1-33. Reserve Bank of Australia. <https://doi.org/10.2139/ssrn.2209604>
- Esselink, H., & Hernández, L. (2017). The use of cash by households in the Euro Area. *European Central Bank Occasional Paper, 201*, 1-69. European Central Bank. Retrieved from <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>
- Flannigan, G., & Parsons, S. (2018). High-denomination banknotes in circulation: A cross-country analysis. *RBA Bulletin, March*, 1-19. Reserve Bank of Australia. Retrieved from <https://www.rba.gov.au/publications/bulletin/2018/mar/pdf/high-denomination-banknotes-in-circulation-a-cross-country-analysis.pdf>
- Fujiki, H., & Nakashima, K. (2019). Cash usage trends in Japan: Evidence using aggregate and household survey data. *TCEC Working Paper Series, E-131*, 1-42. Tokyo Center for Economic Research. <https://doi.org/10.2139/ssrn.3351429>
- Greene, C., & Stavins, J. (2018). The 2017 diary of consumer payment choice. *Federal Reserve Bank of Atlanta, Research Data Report, 18(5)*, 1-22. Retrieved from <https://www.frbatlanta.org/-/media/documents/banking/consumer-payments/research-data-reports/2018/the-2017-diary-of-consumer-payment-choice/rdr1805.pdf>

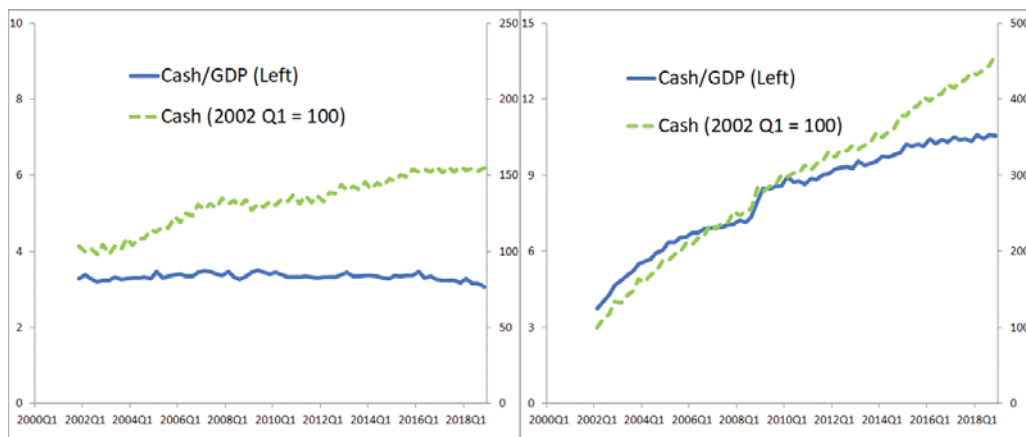
- Haasl, T., Schulhofer-Wohl, S., & Paulson, A. (2018). Understanding the demand for currency at home and abroad. *Chicago Fed Letter*, 396. Federal Reserve Bank of Chicago. <https://doi.org/10.21033/cfl-2018-396>
- Judson, R. (2017). The death of cash? Not so fast: Demand for U.S. currency at home and abroad, 1990-2016. *Deutsche Bundesbank International Cash Conference 2017 – War on cash: Is there a future for cash?* pp. 1-33. Deutsche Bundesbank. Retrieved from <https://www.econstor.eu/bitstream/10419/162910/1/Judson.pdf>
- Kiaonrong, T., & Humphrey, D. (2019). Cash use across countries and the demand for central bank digital currency. *IMF Working Paper; WP/19/46*, 1-43. International Monetary Fund. <https://doi.org/10.5089/9781484399606.001>
- Kumar, R., & O'Brien, S. (2019). *2019 findings from the diary of consumer payment choice*. Fed Notes, June. Federal Reserve Bank of San Francisco. Retrieved from <https://www.frbsf.org/cash/publications/fed-notes/2019/june/2019-findings-from-the-diary-of-consumer-payment-choice/>
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221. [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- Otani, A., & Suzuki, T. (2008). Background to the high level of banknotes in circulation and demand deposits. *Bank of Japan Review, 2008E-5*. Bank of Japan. Retrieved from https://www.boj.or.jp/en/research/wps_rev/rev_2008/data/rev08e05.pdf
- Sayuri, S. (2018). *Mission Incomplete: Reflating Japan's Economy* (2nd ed.). Asian Development Bank Institute. Retrieved from <https://www.adb.org/sites/default/files/publication/225571/adbi-mission-incomplete-reflating-japan-economy.pdf>

APPENDIX Figure 1. Cash in Circulation in the Advanced Economies (% of Nominal GDP, 2002 Q1=100)



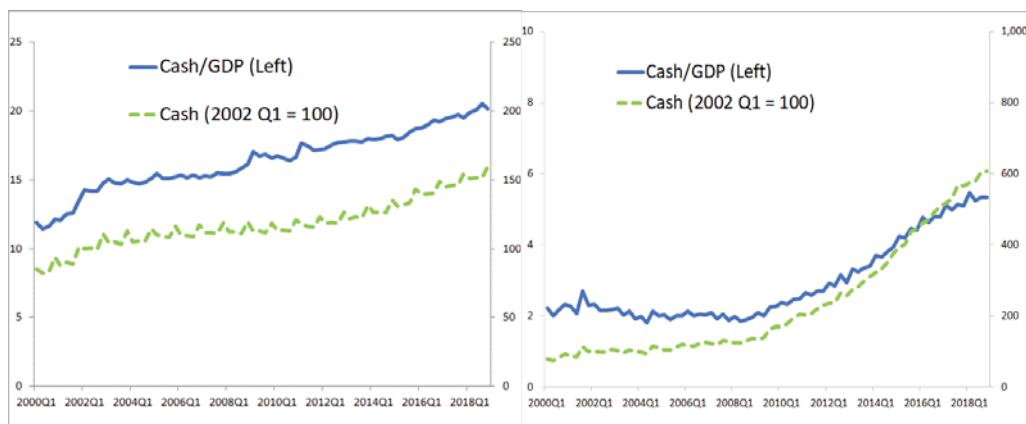
(1) Australia

(2) Canada



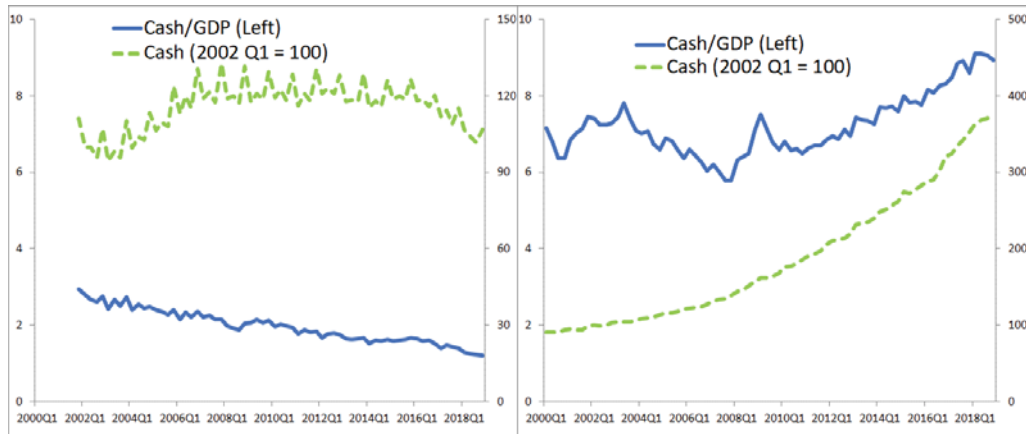
(3) Denmark

(4) Euro Area



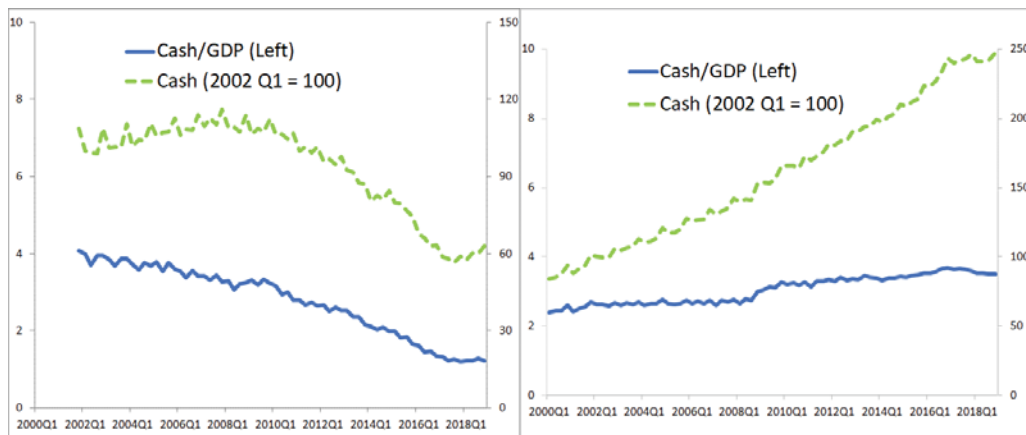
(5) Japan

(6) Korea



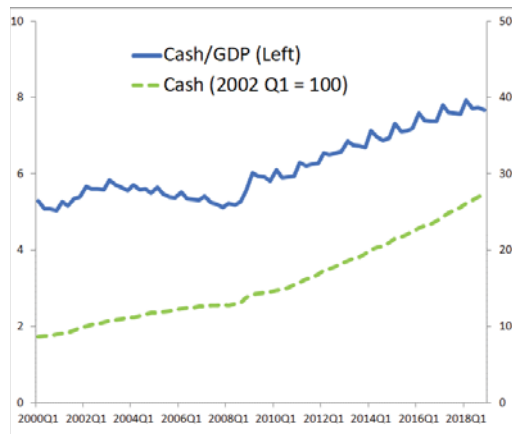
(7) Norway

(8) Singapore



(9) Sweden

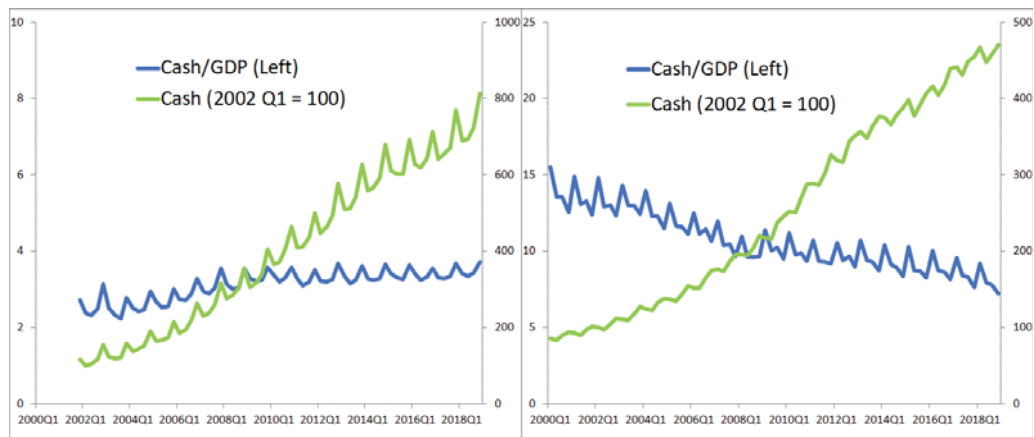
(10) United Kingdom



(11) United States

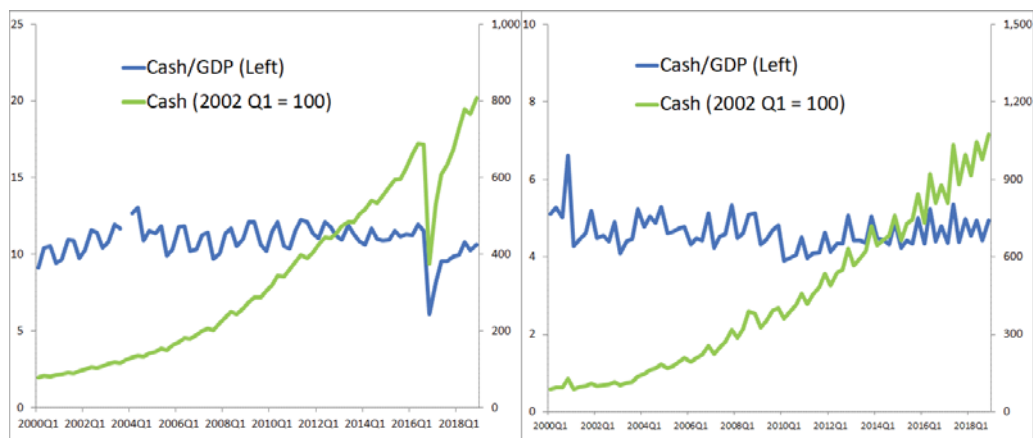
Source: CEIC

APPENDIX Figure 2. Cash in Circulation in the Emerging/Developing Economies (% of Nominal GDP, 2002 Q1=100)



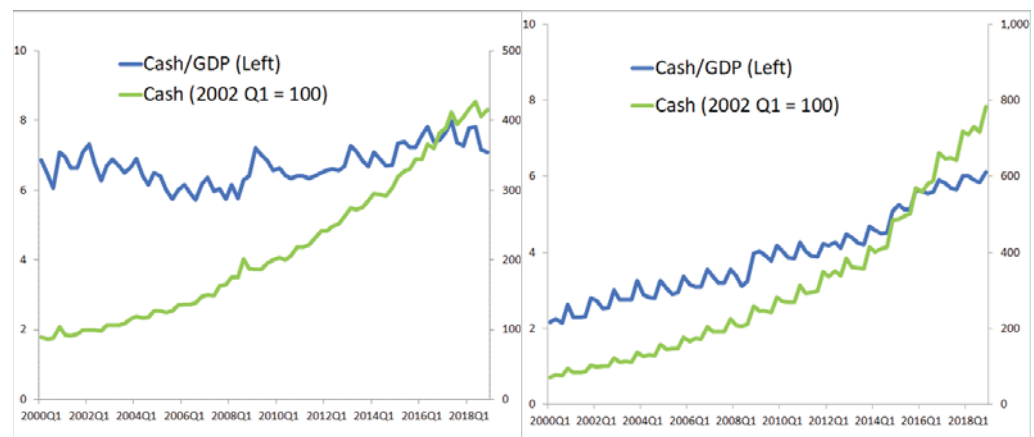
(1) Brazil

(2) China



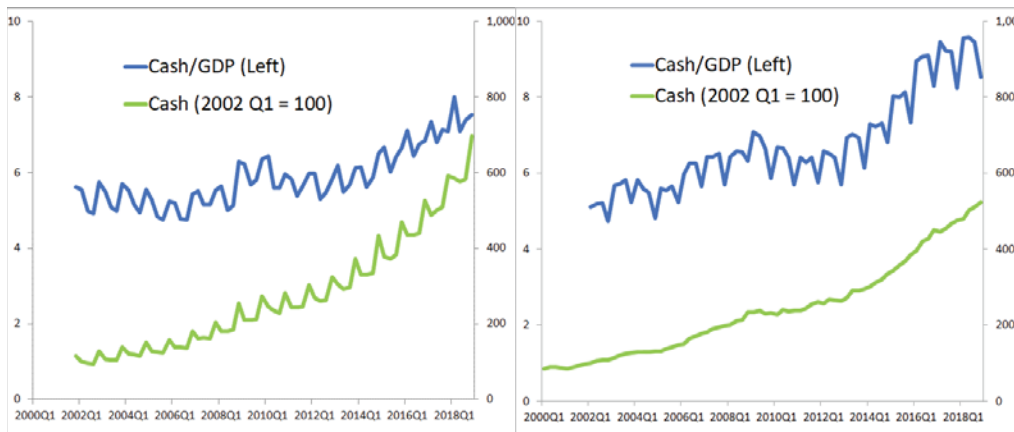
(3) India

(4) Indonesia



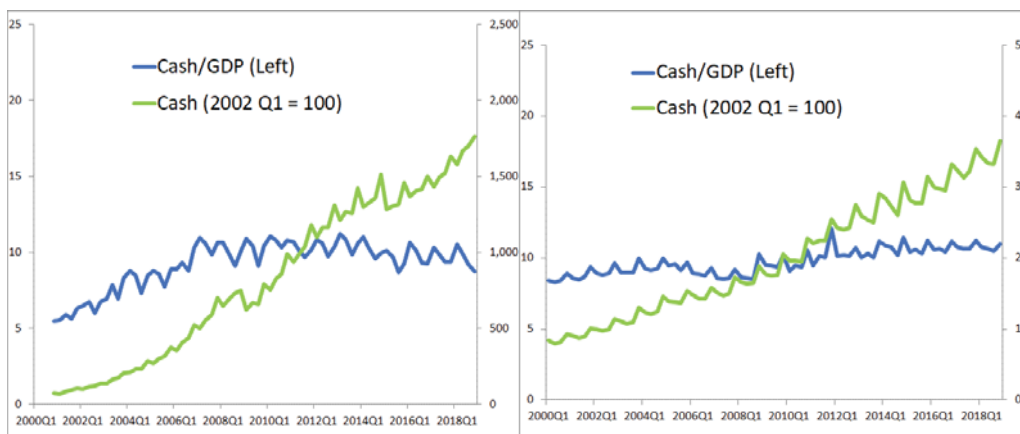
(5) Malaysia

(6) Mexico



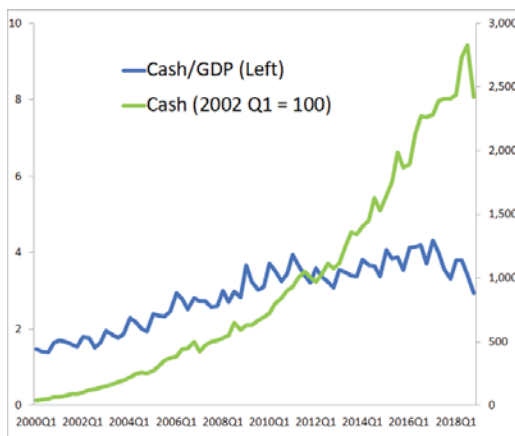
(7) Philippines

(8) Poland



(9) Russia

(10) Thailand



(11) Turkey

Source: CEIC

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 the Development of ICT Infrastructure and Security on the Effectiveness of Accounting Information in the Jordanian Banking Sector

Reem Oqab Hussein Al- Khasawneh¹, Mohamed Mahmoud Mohamed bshayreh¹, Mohamed Ali Al-Oqool¹

¹ Al-Baqa Applied University –Al –Huson University college, Jordan

Correspondence: Reem Oqab Hussein Al- Khasawneh, Al-Baqa Applied University –Al –Huson University college, Jordan.

Received: October 7, 2019

Accepted: November 13, 2019

Online Published: November 25, 2019

doi:10.5539/ibr.v12n12p93

URL: <https://doi.org/10.5539/ibr.v12n12p93>

Abstract

Information and communication technology ICT infrastructure is an essential foundation of the information society characterized by modernization and advance. ICT infrastructure consists of main five elements including physical resources, human resources, software, databases and networks and communication. The study aims at identifying the impact of the development of ICT infrastructure, which includes physical and human resources, software, databases and networks and communications, on the effectiveness of accounting information systems. To achieve the purposes of the study, a researcher has used a descriptive research methodology; a questionnaire has been distributed to the employees at various management and accounting positions in the bank.

The study found that the developments of ICT infrastructure, consisting of physical and human resources, software, databases and networks and communications, affects extremely the effectiveness and security of accounting information systems.

Keywords: information technology, effectiveness of information technology, information security

1. Introduction

Accounting information system is a significant part of business organizations and a main source of planning and monitoring processes. Availability of effectiveness property of accounting information system, therefore, is one of main factors of business organizations' success, particularly banks. ICT is a competitive feature in banking sector; it is used for providing banking services, transaction and banking processes. In addition, ICT provides management department with information on planning, monitoring and decision-making which mainly contributes to rationalize the decisions and succeed the administrative processes. Thus, providing such information meets management needs and contributes to achieve bank goals .

Effectiveness of accounting information systems is linked to a provision of ICT infrastructure which consists of physical and human resources, software, databases, and networks and communications providing and processing the data .

In light of the use of wire and wireless communication technology, banks shall provide programs of accounting data protection and confidentiality; bank and clients data shall be protected against the penetration which may distort bank reputation and cause financial losses. In addition, human resources specializing in these systems shall be provided; one of the most significant elements of infrastructure of banking accounting information systems is database. Techniques of the database and technological cloud systems have been developed in order to save the data and perform the processes .

Accordingly, Jordanian banking sector seeks to develop IT infrastructure and security and keep up with the changes and risks of accounting information systems; it also tries to ensure the effectiveness of accounting information systems and achieve competition feature .

2. Purposes of the Study

The study aims at identifying the following:

-The most important development of the elements of ICT infrastructure and its role in achieving the effectiveness

of accounting information system in Jordanian banks.

-To which extent Jordanian banks pay attention to develop ICT infrastructure and security and its impact on achieving the effectiveness of accounting information systems.

-The impact of the development of infrastructure elements, including physical and human resources, software, database, communications and networks, on achieving the effectiveness of accounting information system in banking sector.

-The role of the development of information security systems in Jordanian banking sector in achieving the effectiveness of accounting information systems.

3. Importance of the Study

This study is important because it identifies the development of IT infrastructure and its role in the effectiveness of accounting information systems in banking sector, the most significant part of economic sector .

This sector seeks to use highly IT in order to provide banking services and prepare the data. At present, banks depends greatly on ICT through using electronic sites in order to provide the services. However, using ICT is usually accompanied with various risks. Jordanian banks, therefore, seek to provide security and protection methods evolved according to the development of IT infrastructure and uses. As a result, the accompanied risks which may damage the accounting information and cause financial losses may be reduced. Consequently, a harmony between the development of IT infrastructure and its security shall be provided in order to achieve the effectiveness of accounting information systems .

4. Problem of the Study

Accelerated development of accounting information technology and its infrastructure is linked to information security in a way that achieves the effectiveness of accounting information systems. This study aims to answer the following questions :

-Does the development of ICT infrastructure, including physical and financial resources, software, databases, communication and networks, affect the effectiveness of e-banking information systems in Jordanian banks?

-Does the development of information system infrastructure and data security contribute to achieve the effectiveness of e-banking accounting systems in Jordanian banks ?

5. Hypotheses of the Study

The study tests the following hypotheses -:

First hypothesis: There is no statistically significant relationship between the development of ICT infrastructure, including physical and financial resources, software, databases, communication and networks, and its security and the effectiveness of accounting information systems in Jordanian banks .

The study also tests the following sub-hypotheses related to the elements of ICT infrastructure :

There is no statistically significant relationship between the development of physical resources as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks .

There is no statistically significant relationship between the development of software as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

There is no statistically significant relationship between the development of databases as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

There is no statistically significant relationship between the development of human resources as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

There is no statistically significant relationship between the development of communications and networks as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

Second hypothesis: There is no statistically significant relationship between the development of information security system as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

6. Previous Studies and Theoretical Framework

Siyam study (2004), entitled 'Evaluation of the Effectiveness of Computerized Accounting Information Systems In Jordanian Commercial banks in the light of technological development', touched upon the evaluation of the effectiveness of accounting information systems; it examined a set of standards (i.e quality, flexibility, simplicity

and reliability) which reflect the effectiveness of the performance of these systems. The researcher designed a questionnaire distributed to financial managers and employees working in financial departments of (9) nine Jordanian commercial banks listed in stock marks (Amman Stock Exchange) of the year of 2003. 45 questionnaires were distributed; 42 questionnaires were valid for the purposes of the analysis. The study found that computerized accounting information systems in Jordanian commercial banks have been characterized by the quality due to the accuracy and adequacy of the outputs of these systems in the light of technological development. In addition, the study showed that computerized accounting information systems in Jordanian commercial banks have been characterized by the flexibility, simplicity and reliability in the light of technological development; these features have been listed in a descending order as follows: quality, reliability, flexibility and simplicity. The study recommended that computerized accounting information systems should be developed .

Qatawneh study (2005), entitled ‘Impact of the Use of Information Technology On the Effectiveness of accounting information systems: A case study of Banks and Insurance Companies listed in Amman Stock Exchange’, aimed at identifying the impact of the use of information technology on the effectiveness of accounting information systems in banks and insurance companies listed in Amman Stock Exchange. The researcher designed two questionnaires in order to achieve the purposes of the study; the first aimed at measuring the effectiveness of accounting system; the second aimed at measuring the impact of information technology on the effectiveness of accounting information systems. Numbers of insurance and bank facilities were 10 and 13, respectively; 138 questionnaires had been distributed to 138 and 113 had been valid for analysing. The study found that the use of information system affected the effectiveness of accounting information systems; the most important factor has been the use of communication networks, followed by hardware and software, then databases. The study indicated that technology levels used by banking sector are higher than that used by insurance companies. The study recommended that information technology should be increasingly invested; technological developments should be kept with.

Fadel study (2007), entitled ‘ Extent of the Impact of Environmental, Regulatory, Behavioural, and Technological Factors on the Effectiveness of Accounting Information Systems in Commercial Banks in Republic of Yemen: A field Study’, aimed at identifying the extent of the impact of environmental, regulatory, behavioural, and technological factors on the effectiveness of accounting information systems, whether these factors have been taken together or independently in financial departments and accounting sections. A study sample was composed of 340 employees working in Yemeni commercial banks. 172 questionnaires were analysed. The study found that when these factors were taken together, the technological and regulatory factors had affected the effectiveness of accounting information system. However, when these factors were taken independently, each one had a clear and positive impact on the effectiveness of accounting information systems used in Yemeni commercial banks. The study recommended that the employees and users should involve in the design and development of accounting information systems; computers and advanced software should be used; administrative decentralization system should be expanded .

Ghassan Falah Al-Matarneh and Jamal Adel Al-Shrairi study (2009), entitled ‘Impact of Information Technology on The Effectiveness of Accounting Information Systems in Jordanian pharmaceutical companies’, aimed at identifying the impact of information technology on the effectiveness of accounting information systems in Jordanian pharmaceutical companies; it also was to identify the impact of the use of hardware, software and databases on the effectiveness of accounting information systems in these companies. To achieve study purposes and to test study hypotheses, a questionnaire was designed and distributed to study sample composed of 42 respondents. Arithmetic mean, standard deviation and t-test were used for testing the hypotheses. The study found that using IT, hardware, software and databases affected the effectiveness of accounting information systems. The researcher recommended that the use of accounting and administrative information technology should be developed in accordance with work requirements and changes of external environment .

7. Theoretical Framework of Study

Due to new work environment, work organizations are forced to develop their traditional businesses and switch to e-business which is in line with modern tools and methods. At a present, businesses are directly provided on line via websites. In addition, financial statements are presented and submitted through e-disclosure via company website and Securities Commission website. Hence, IT infrastructure is important because it contributes greatly to achieve systems’ goals and improve making-decision processes which depend on accurate and speedy information. Providing a sophisticated infrastructure with high capabilities of processing accounting data and information via new communication channels may increase the speed of information flow and exchange among administrative departments. The researchers unanimously agreed that the components of IT infrastructure are physical and human resources, software, databases and wireless networks (Loudon & laden 2003:176) and (Al-Abbadi 2006 pp. 36-45).(Effectiveness of accounting information systems is an ability of accounting system to achieve its goals

such as a provision of appropriate and reliable information which helps decision-makers achieve their goals (Karfou, Mohsen, and Ahmad, 2016, P. 278).

Al-Matarneh and Al-Sharairi, 2010, P.102 pointed out that effectiveness of accounting information technology is the ability of the system to achieve its planned and desired goals.

The researcher has believed that if e-banking accounting system is effective, it will be able to achieve its assigned goals. Accordingly, the system is less or more effective according to its ability to achieve the assigned and desired goals. Regarding information security, accounting information system operates within a secure environment which makes the financial and accounting statements more reliable, confidential and integrated. In addition, accounting information is protected against the risks and threats which accompany IT.

Next section of the study outlines the role of IT infrastructure and security in the effectiveness of e-accounting information systems.

8. Physical Resource as a Part of IT Infrastructure in the Banks and Its Role in Achieving the Effectiveness of E-accounting Information Systems

Physical Resources are the equipment and hardware used for performing information systems' activities and tasks such as data entry, processing and output (Al-Shammari, 2013, P.12). The researcher believes that e-banking system infrastructure system is composed of banking data entry units, processing hardware and storage units. Then, the branch saves all the data in database until the end of accounting period including processes and operation files in order to be used at the end of fiscal year for preparing yearly financial report and interim data. Due to the development of banking information system, Banks have used large-sized computers for processing banking operations and terminal units for saving the data then transferring them to the management. However, small-sized computers, mobile devices and tablets have recently been used for data entry and processing by the banks because of the continuous development of computers. In addition, the banks have used a set of devices such as data readers which read cheques' data. Data entry and processing's development contributes to achieve the effectiveness of accounting information systems through the availability of the accuracy and reliability of data entry, thereby achieving the reliability of banking accounting data processing. With regard to the development of storage units and data transmission means, the development of material unit contributes to use databases, e-clouds which achieve confidentiality, reliability and integration of preparing e-banking accounting data and the speed of access to the data.

9. Software as a Part of IT Infrastructure in the Banks and Its Role in Achieving the Effectiveness of E-accounting Information Systems

Software applied by e-banking accounting information system controls and manages physical resources through a set of detailed instructions and orders; it also controls all system operations and contributes to achieve accounting information system's goals; by using such system, specialized human resources can retrieve or modify the data, when necessary.

Software of e-banking accounting information system is composed of a set of programs required for operating the devices which regulate and control software's parts and accessories plus software applications specialized in banking works.

The development of software as a part of accounting information system infrastructure contributes to achieve the effectiveness of e-banking accounting system; working mechanism of material components of data processing and access are controlled; in addition, the data can be modified in order to achieve the reliability and integration.

Moreover, software of processing of banking operations has been developed; banking operations are processed and controlled by specialized advanced accounting banking applications. Banking software has evolved into electronic applications the clients can use for processing banking operations via electronic means such as smart phones and tablets; software of accounting information security attached to e-banking accounting applications has been developed in order to achieve the security of accounting information and ensure the confidentiality and reliability of banking accounting data; security and protection programs allow only authorized employees to access the data.

10. Human resource as a Part of IT Infrastructure in the Banks and Its Role in Achieving the Effectiveness of E-accounting Information Systems

Human resource is one of significant components of IT infrastructure and contributes greatly to the success of accounting information system. Employees, therefore, shall know the methods of using physical resources, software and operating this system. In addition, they shall know the methods of processing and preparing accounting data and reports. Continuous training for the employees contributes to achieve the effectiveness of

accounting information system .

11. Database as a Part of IT infrastructure in the Banks and Its Role in Achieving the Effectiveness of E-accounting Information Systems

Database is one of essential components of IT infrastructure of e-banking accounting information system; it is a set of files and data linked mutually and organized within a logical framework; they are saved and can be retrieved in order to prepare necessary information. Database allows for data sharing among data users in work organizations including banks. The users are able to share the data when necessary; data sharing is managed in order to maintain data security through programs of database management; these programs can be used to protect the data against unauthorized access; they also ensure data reliability and the confidentiality and integration of preparing the data .

12. Networks and Communication Systems as Parts of IT infrastructure in the Banks and their Role in Achieving the Effectiveness of E-accounting Information Systems

Networks and communication systems are essential parts of modern e-banking accounting system; they contribute deeply to the success of banking activities and operations; in addition, they are key factors achieving competitive advantage and increasing bank profitability .

Networks and communication systems connect the operations and systems altogether; Networks and communication systems make data transferring and sharing inside the bank and between various banks and the central bank and correspondent banks easier; it is noted that various services provided by ATMs are acceptable; banking systems use a set of networks and communication systems which can be divided into :

13. Specialized Internal Computer Networks

They aim at providing a certain level of data protection and privacy while data is transferred and shared between bank branches, management and internal sections. These network applications are only used by authorized employees working in the banks; the banks can also use internal mail as e-application .

14. Internet

The bank uses internet in various fields; internet used by the bank includes a set of specialized protection programs with high levels of quality; the bank may use bank websites in order to provide e-banking services. Moreover, internet can be used to exchange the information and e-mails between correspondent banks, general administration and the central bank .

15. Extranet

It is an internal communication network which allows authorized persons to access a local network and perform certain tasks. Communication systems such as wire communications, wire transmission lines, data sharing and accessing, wireless communications, have highly developed. Because of continuous development of communication systems, various data protection programs have been invented and developed. Such programs protect the data against unauthorized access and modification, abuse of the banks and clients. Accordingly, these systems contribute to achieve the effectiveness of e-accounting system .

16. Field Study

Study Methodology

Analytical descriptive method has been used for describing accurately a phenomenon as it is in the reality. In addition, it has expressed the phenomenon quantitatively and qualitatively. It has based on two sources to collect the data :

Primary sources

A questionnaire has been designed and distributed to the employees working in various positions in Jordanian banks including bank branch manager, assistant branch manager, head of department, internal auditor.

Secondary sources

They include the literatures such as books, periodicals, researchers, reports, Arab and foreign publications related to the subject of the study. They also consist of governmental documents, laws and relevant systems .

Study Tool

The questionnaire has been designed to collect the data required for achieving study goals. likert five point scale has been employed in order to measure respondents' agreement with all questionnaire statements. The data has been converted into numerical results which can be statistically measured and described. Likert scale has five points as follows: agree strongly, agree, undecided, disagree, and disagree strongly. Numerical values range from

1-5, respectively; these values give the weight of the responses .

Study Population and Sample

Study population consists of 15 banks listed in Amman Stock Exchange; 4 questionnaires have been distributed to each bank; 60 questionnaires have been distributed; 50 valid questionnaires have been retrieved .

17. Validity and Reliability of Study Tool

Validity of Study Tool

The questionnaire has been arbitrated by a group of academic professors specializing in accounting, auditing and statistics for ensuring the validity; their notes have been taken into consideration and some statements have been reformulated in order to achieve consistency and balance among questionnaire statements .

Reliability of Study Tool

Cronbach's alpha coefficient has been used for testing the validity of questionnaire results and an availability of internal consistency among questionnaire statements; an acceptable value of Alpha coefficient is 60% or more. Alpha coefficient has been applied to all parts of questionnaire; Table 1 illustrates that the value of Cronbach's alpha coefficient of respondents' answers to all questions and fields is higher than the acceptable value. It means that a high degree of internal consistency is available. As a result, study tool has a high level of reliability and its answers can be adopted for achieving study goals and analyzing the results. Table below outlines the results of Cronbach's alpha test :

Table 1. Consistency Coefficients extracted by Cronbach's Alpha

Field	Results		
	Number of Question	Alpha Coefficient	Result
Development of physical resource as a part of ICT infrastructure in the banks and its role in achieving the effectiveness of e-accounting information systems	5	87	Accepted
Development of software as a part of ICT infrastructure in the banks and its role in achieving the effectiveness of e-accounting information systems	15	72	Accepted
Development of database as a part of ICT infrastructure in the banks and its role in achieving the effectiveness of e-accounting information systems	11	97	Accepted
Development of human resource as a part of ICT infrastructure in the banks and its role in achieving the effectiveness of e-accounting information systems	7	86	Accepted
Development of communications and network systems as part of ICT infrastructure in the banks and their role in achieving the effectiveness of e-accounting information systems	8	86	Accepted
Development of information security as a part of ICT infrastructure in the banks and its role in achieving the effectiveness of e-accounting information systems	15	82	Accepted

18. Descriptive Analysis of Sample Study's Response

Respondents' answers have been analysed by using statistical package for social science; the following statistical methods have been used:

Cronbach's Alpha Test: It tests the internal consistency and reliability of measurement tool .

Arithmetic means: they identify the rate of response of respondents according to study variables .

Standard deviations: they are used for measuring the degree of absolute dispersion that represents answers' values.

One sample T-test: It is used for testing study hypotheses .

Criteria of Descriptive Analysis

Each set of questions which reflect study hypotheses has been named a field. For the purposes of data characterization and identification of respondents' opinions on questionnaire's statements and study fields, each statement has been divided according to likert five point scale as the following :

Classification	Extremely influential	Very influential	Somewhat influential	Slightly influential	Not at all influential
Encoding	5	4	3	2	1

According to table above, adopted arithmetic mean is 3; it is extracted from a sum of values which is divided by values' number. Adopted influence ratio is 3 divided by 5, i.e 60%. Accordingly, the values of arithmetic means, reached by the study, are processed in order to interpret the data as the following:

1	2	3	4	5
Not at all influential	Slightly influential	Somewhat influential	Very influential	Extremely influential
1.79-1	2.59-1.80	2.59-2.60	4.19-3.40	5-4.20
The development of ICT infrastructure does not influence the effectiveness of e-accounting information technology at all	The development of ICT infrastructure influences slightly the effectiveness of e-accounting information technology	The development of ICT infrastructure influences moderately the effectiveness of e-accounting information technology	The development of ICT infrastructure influences highly the effectiveness of e-accounting information technology	The development of ICT infrastructure influences extremely the effectiveness of e-accounting information technology

19. Data Analysis and Study Hypotheses Testing

This section outlines and discusses the results the field study has reached in the light of study goals, questions and hypotheses .

First Hypothesis Testing

First hypothesis states that there is no statistically significant relationship between the development of ICT infrastructure, including physical and financial resources, software, databases, communication and networks, and its security and the effectiveness of accounting information systems in Jordanian banks. The study also tests the following sub-hypotheses related to the elements of ICT infrastructure. Sub-hypotheses have been firstly tested; then first main hypothesis has been tested .

First Sub-hypothesis Testing

In order to validate this hypothesis, arithmetic means and standard deviations have been extracted; the relation between the development of physical resource as a part of ICT infrastructure and the effectiveness of the effectiveness of e-accounting information systems in Jordanian banks has been measured. Table 3 outlines arithmetic means and standard deviations.

Table 3. Arithmetic mean and standard deviation of the development of physical resource as a part of ICT infrastructure and the effectiveness of e-accounting information system

Statements	Arithmetic mean	Standard Deviation	Answer Orientation
Following statements measure to which extent the development of physical resource as a part of ICT infrastructure in the banks contributes to achieve the effectiveness of accounting information systems:			
The development of using modern and sophisticated hardware and devices in banking operations contributes to achieve the effectiveness of e-accounting information systems	4	0.49	Very influential
periodical update and maintenance of hardware and devices contribute to achieve the effectiveness of e-accounting information systems	4.14	0.49	Very influential
Hardware and devices used for processing and entering the data are compatible with the nature and number of the users and work nature and contribute to achieve the effectiveness of e-accounting information systems	4.71	0.49	Extremely influential
Hardware and devices are compatible with operation systems applied by the banks in the manner that achieves the effectiveness of e-accounting information systems	4.71	0.49	Extremely influential
Hardware and devices of alternative energy shall be provided in order to cope with power outages or and malfunction of e-system, thereby achieving the effectiveness of e-accounting information system	4.71	0.49	Extremely influential
Total	4.39	0.45	Extremely influential

The responses stated above have illustrated that the development of physical resource has extremely and positively influenced. In addition, they have showed that the development of using modern and advanced hardware and devices contributes to achieve the effectiveness of e-accounting information systems in the banks; total calculated arithmetic mean has been 4.39, which is higher than hypothetical mean which is 3. Accordingly, responses' orientation has indicated that the development of physical resources has extremely influenced .

In addition, arithmetic mean of the statements which form first sub- hypothesis has been compared with standard mark 3- hypothesis acceptance standard- by using t-test as stated in table 4 .

Table 4. Arithmetic Means, Standard Deviations and T-test of Statements which form the First Sub-Hypothesis

The development of physical resource as a part of ICT in the banks has influenced the effectiveness of accounting information systems:	Number	Arithmetic Mean	Standard Deviation	T-Value	Freedom Degree	Statistical Significance
	50	4.39	45.	10.967	21	000.

Table 4 has indicated that there are statistical differences at ($\alpha=0.05$) between arithmetic mean and standard deviation 3; T-value has been 10.967; statistical significance has been 0.000. Thus, the hypothesis, stating that there is no statistically significant relationship between the development of physical resource as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been rejected; alternative hypothesis, stating that there is statistically significant relationship between the development of physical resource as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been accepted .

Second Sub-hypothesis Testing

In order to validate this hypothesis, arithmetic means and standard deviations have been extracted for measuring the relation between the influence of the development of software and the effectiveness of e-accounting information systems. Table 5 outlines arithmetic means and standard deviation .

Table 5. Arithmetic Means and Standard Deviation of the Impact of Software on the Effectiveness of E-Accounting Information System

Statements	Arithmetic mean	Standard Deviation	Answer Orientation
Following statements measure to which extent the development of software as a part of ICT infrastructure in the banks contributes to achieve the effectiveness of accounting information systems:			
Banking Applications (Specialized Software (
Latest software used by Jordanian banks contributes to achieve the effectiveness of accounting information systems	4.41	0.90	Very influential
The development of programs used by Jordanian banks contributes to achieve the effectiveness of accounting information systems	4.41	0.90	Very extremely
Banks update the software required for management requirements in order to achieve the effectiveness of accounting information systems	4.71	0.49	Extremely influential
Using modern and advanced software in data processing contributes to achieve the accuracy of accounting data .	4.43	0.98	Very influential
Using modern and advanced software contributes to achieve the speediness of accounting data.	4.41	0.90	Very influential
Using modern and advanced software contributes to achieve the integration of accounting data.	4.41	0.90	Very influential
Jordanian banks use software which is characterized by easiness and flexibility of use.	4.71	0.49	Extremely influential

Operation systems			
Modern and advanced operation systems used by Jordanian banks contribute to achieve the effectiveness of accounting information systems	4.71	0.49	Extremely influential
Using modern and advanced operation systems contributes to achieve the integration of accounting data	4.71	0.49	Extremely influential
Using modern and advanced software and application operation systems contributes to achieve the accuracy of accounting data	4.41	0.90	Very influential
Operation systems used by Jordanian banks are characterized by easiness and flexibility of performing the required tasks.	4.57	0.53	Extremely influential
E-applications via cell phones:			
E-applications and programs via cell phones and smart devices used by Jordanian banks are characterized by the easiness of use	4.71	0.49	Extremely influential
E-applications and programs via cell phones and smart devices used by Jordanian banks contribute to achieve the effectiveness of accounting information systems	4.71	0.49	Extremely influential
E-applications and programs via cell phones and smart devices used by Jordanian banks contribute to achieve the speediness of accounting information systems	5	0	Extremely influential
E-applications and programs via cell phones and smart devices used by Jordanian banks contribute to achieve the accuracy of accounting information systems	4.71	0.49	Extremely influential
E-applications and programs via cell phones and smart devices used by Jordanian banks contribute to achieve banks' competition and profitability	5	0	Extremely influential
Total	4.50	0.18	Extremely influential

The responses stated above have illustrated that the development of software applications and programs has extremely influenced the effectiveness of e-accounting information systems. Arithmetic mean has been 4.50, which is higher than hypothetical mean which is 3. Accordingly, responses' orientation has indicated that the development of software has extremely influenced. In addition, they have showed that using modern and advanced software contributes to achieve the accuracy, speediness, reliability and integration of e-accounting information systems in the banks.

In addition, arithmetic mean of the statements which form second hypothesis has been compared with standard mark 3- hypothesis acceptance standard- by using t-test as stated in table 6 .

Table 6. Arithmetic Means, Standard Deviations and T-test of Statements which form Second Sub Hypothesis

the development of software as a part of ICT in the banks has influenced the effectiveness of accounting information systems:	Number	Arithmetic Mean	Standard Deviation	T-Value	Freedom Degree	Statistical Significance
	50	4.50	18.	10.835	21	000.

Table 6 has indicated that there are statistical differences at ($\alpha=0.05$) between arithmetic mean and standard deviation 3; T-value has been 10.835; statistical significance has been 0.000. Thus, this hypothesis has been

rejected; alternative hypothesis, stating that there is statistically significant relationship between the development of software as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been accepted .

Third Sub-hypothesis Testing

In order to validate this hypothesis, arithmetic means and standard deviations have been extracted for measuring the relation between the influence of the development of database as a part of ICT infrastructure and the effectiveness of e-accounting information systems. Table 7 outlines arithmetic means and standard deviation .

Table 7. Arithmetic Means and Standard Deviation of the Impact of database on the Effectiveness of E-Accounting Information System

Statements	Arithmetic mean	Standard Deviation	Answer Orientation
Following statements measure to which extent the development of database as a part of ICT infrastructure in the banks contributes to achieve the effectiveness of accounting information systems:			
Database characterized by the flexibility, which is in line with the development of IT, contributes to achieve the accuracy of accounting information	4.34	1.25	Extremely influential
Database characterized by the flexibility and modernization, which are in line with the development of IT, contributes to achieve the integration of accounting information	4.43	0.49	Extremely influential
Database characterized by the flexibility, which is in line with the development of IT, contributes to achieve the speediness of accounting information	4.43	0.49	Extremely influential
Database characterized by the flexibility, which is in line with the development of IT, contributes to achieve the reliability of accounting information	4.43	0.49	Extremely influential
The development of database contributes to sort and tabulate accounting information properly, thereby processing and providing easily the appropriate information	4.43	0.82	Extremely influential
The development of database contributes to achieve the speediness of response and access to information at the right time	4.43	0.82	Extremely influential
The development of database contributes to achieve the ability of database to detect errors and redundancies in accounting information	4.34	1.25	Extremely influential
The development of database of banking accounting systems contributes to provide the most useful information for planning	5	0.82	Extremely influential
The development of database of banking accounting systems contributes to provide the most useful information for controlling	5	0.82	Extremely influential
The development of database of banking accounting systems contributes to provide the most useful and effective information for decision-making	4.73	0.82	Extremely influential
Total	4.73	0.82	Extremely influential

The responses stated above have illustrated that the development of database has extremely influenced the effectiveness of e-accounting information systems. Arithmetic mean has been 4.43, which is higher than hypothetical mean which is 3. Accordingly, responses' orientation has indicated that the development of the database has extremely influenced the effectiveness of e-accounting information systems. In addition, they have showed that using advanced database contributes to achieve an integration, confidentiality and speediness of e-accounting information systems in the banks.

In addition, arithmetic mean of the statements which form third sub- hypothesis has been compared with standard mark 3 - hypothesis acceptance standard- by using t-test as stated in table 8 .

Table 8. Arithmetic Means, Standard Deviations and T-test of Statements which form Third Sub-Hypothesis

the development of database as a part of ICT in the banks has influenced the effectiveness of e-accounting information systems:	Number	Arithmetic Mean	Standard Deviation	T-Value	Freedom Degree	Statistical Significance
	50	4.73	0.82	9.485	21	000.

Table 8 has indicated that there are statistical differences at ($\alpha=0.05$) between arithmetic mean and standard deviation 3; T-value has been 9.485; statistical significance has been 0.000. Thus, this hypothesis, stating that there is no statistically significant relationship between the development of database as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been rejected; alternative hypothesis, stating that there is a statistically significant relationship between the development of databases as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been accepted .

Fourth Sub-hypothesis Testing

In order to validate this hypothesis, arithmetic means and standard deviations have been extracted for measuring the relation between the influence of the development of human resource as a part of ICT infrastructure and the effectiveness of e-accounting information systems. Table 9 outlines arithmetic means and standard deviation .

Table 9. Arithmetic Means and Standard Deviation of the Impact of the development of human resource on the Effectiveness of E-Accounting Information System

Statements	Arithmetic mean	Standard Deviation	Answer Orientation
Following statements measure to which extent the development of human resource as a part of ICT infrastructure in the banks contributes to achieve the effectiveness of accounting information systems:			
Banks' managements train the accountants and develop their skills which are appropriate for the development of information technology	4.43	0.53	Extremely influential
The accountants are trained in advance software applications in order to achieve the effectiveness of modern accounting system and provide bank's management with the appropriate information	4.14	0.9	Very influential
The accountants participate in the processes of developing and modernizing electronic systems in order to achieve the effectiveness of e-accounting systems, thereby providing managements and departments with the appropriate information	4	0.0	Very influential
The banks try to engage the employees in training programs in order to develop a knowledge on the risks of electronic systems which spoil accounting information systems	4.29	0.49	Extremely influential
The banks try to engage the accountants in choosing the software which is appropriate for accounting processing	3.71	0.49	Very influential
The accountants are engaged in choosing the software in order to prepare the reports which are appropriate for making various decisions	4.71	0.49	Very influential
The accountants are trained on all security software and programs of accounting systems	4.29	0.49	Extremely influential
Total	4.43	0.49	Extremely influential

The responses stated above have illustrated that the development of human resources has extremely influenced the effectiveness of e-accounting information systems. Arithmetic mean has been 4.43, which is higher than hypothetical mean which is 3. Accordingly, responses' orientation has indicated that the development of human resources has extremely influenced the effectiveness of e-accounting information systems .

In addition, arithmetic mean of the statements which form fourth sub-hypothesis has been compared with standard mark 3- hypothesis acceptance standard- by using t-test as stated in table 10 .

Table 10. Arithmetic Means, Standard Deviations and T-test of Statements which form fourth Sub-Hypothesis

the development of human resource as a part of ICT in the banks has influenced the effectiveness of e-accounting information systems:	Number	Arithmetic Mean	Standard Deviation	T-Value	Freedom Degree	Statistical Significance
	50	4.43	49.	10.835	21	000.

Table 10 has indicated that there are statistical differences at ($\alpha=0.05$) between arithmetic mean and standard deviation 3; T-value has been 10.835; statistical significance has been 0.000. Thus, this hypothesis has been

rejected; alternative hypothesis, stating that there is a statistically significant relationship between the development of human resource as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been accepted .

Fifth Sub-hypothesis Testing

In order to validate this hypothesis, arithmetic means and standard deviations have been extracted for measuring the relation between the influence of the development of communication and network system as a part of ICT infrastructure and the effectiveness of e-accounting information systems. Table 11 outlines arithmetic means and standard deviation .

Table 11 .Arithmetic Means and Standard Deviation of the Impact of the development of communication and network system on the Effectiveness of E-Accounting Information System

Statements	Arithmetic mean	Standard Deviation	Answer Orientation
Following statements measure to which extent the development of communication and network system as a part of ICT infrastructure in the banks contributes to achieve the effectiveness of accounting information systems:			
The bank develops communication networks linking the branches and management according to the recent developments, and maintains them periodically	4.43	0.53	Extremely influential
The development of communication and network systems contributes to the easiness and speediness of exchanging the information between various branches and departments	4.43	0.53	Extremely influential
The development of communication and network systems contributes to achieve the integration of e-accounting information systems	4.43	0.9	Extremely influential
The development of communication and network systems contributes to achieve the confidentiality of e-accounting information systems	4.43	0.53	Extremely influential
The development of communication and network systems contributes to achieve the accuracy of e-accounting information systems	4.43	0.9	Extremely influential
The development of communication and network systems contributes to the speediness of exchanging the information between the banks, branches and the central bank, thereby making accounting systems more effective	4.43	0.9	Extremely influential
The development of communication and network systems contributes to the accuracy and speediness of exchanging the information between the banks and the clients, thereby making accounting systems more effective	4.43	0.9	Extremely influential
The development of communication and network systems contributes to the easiness of data access among the users and provision of the best services, thereby making accounting systems more effective	4.43	0.9	Extremely influential
Total	4.43	0.96	Extremely influential

The responses stated above have illustrated that the development of communication and network system has extremely influenced the effectiveness of e-accounting information systems. Arithmetic mean has been 4.43, which is higher than hypothetical mean which is 3. It means that developing the methods of exchanging and accessing the data via wireless network contributes extremely to achieve the effectiveness of accounting information systems. Accordingly, responses' orientation has indicated that the development of communication and network systems has extremely influenced the effectiveness of e-accounting information systems .

In addition, arithmetic mean of the statements which form sub-fifth hypothesis has been compared with standard mark 3 - hypothesis acceptance standard- by using t-test as stated in table 12 .

Table 12. Arithmetic Means, Standard Deviations and T-test of Statements which form Fifth Hypothesis

the development of communication and network system as a part of ICT in the banks has influenced the effectiveness of e-accounting information systems:	Number	Arithmetic Mean	Standard Deviation	T-Value	Freedom Degree	Statistical Significance
	50	4.43	96.	10.855	21	000.

Table 12 has indicated that there are statistical differences at ($\alpha=0.05$) between arithmetic mean and standard deviation 3; T-value has been 10.855; statistical significance has been 0.000. Thus, this hypothesis has been rejected; alternative hypothesis, stating that there is statistically significant relationship between the development of communication and network as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been accepted .

First Hypothesis Testing

It states that there is no statistically significant relationship between the development of ICT infrastructure, including physical and financial resources, software, databases, communication and networks, and its security and the effectiveness of accounting information systems in Jordanian banks .

Table 13 outlines arithmetic means, standard deviations and T-test of hypotheses which form first main hypothesis.

Table 13. Arithmetic Means, Standard Deviations and T-test of the statements which form first main hypothesis

Field	Number	Arithmetic mean	Standard Deviation	T-Value	Freedom Degree	Statistical Significance
The contribution of the development of physical resources to the effectiveness of e-accounting information systems	50	4.39	45.	10.967	21	000.
The contribution of the development of software to the effectiveness of e-accounting information systems	50	4.50	18.	10.835	21	000.
The contribution of the development of databases to the effectiveness of e-accounting information systems	50	4.73	0.82	9.485	21	000.
The contribution of the development of human resources to the effectiveness of e-accounting information systems	50	4.43	49.	10.835	21	000.
The contribution of the development of communication and network systems to the effectiveness of e-accounting information systems	50	4.43	96.	10.855	21	000.
Total	50	4.496	60.	10.655	21	000.

According to statistical tests, responses' orientation has indicated that the development of ICT infrastructure which consists of five components has extremely influenced the effectiveness of e-accounting information systems. Arithmetic mean has been 4.496, which is higher than hypothetical mean which is 3. It means that developing the components of ICT infrastructure contributes extremely to achieve the effectiveness of

accounting information systems. Accordingly, the contribution of the development of database has occupied the first rank, followed by software in second and communication and network systems and human resources in third.

In addition, arithmetic mean of hypothesis fields which form the hypothesis has been compared with standard mark 3 - hypothesis acceptance standard- by using t-test as stated in previous table .

Table 13 has indicated that there are statistical differences at ($\alpha=0.05$) between arithmetic mean and standard deviation 3; T-value has been 10.655; statistical significance has been 0.000. Thus, this hypothesis has been rejected; alternative hypothesis, stating that there is statistically significant relationship between the development of ICT infrastructure, including physical and financial resources, software, databases, communication and networks, and its security and the effectiveness of accounting information systems in Jordanian banks, has been accepted .

Second Hypothesis Testing

In order to validate this hypothesis, arithmetic means and standard deviations have been extracted for measuring the relation between the influence of information security as a part of ICT infrastructure and the effectiveness of e-accounting information systems. Table 14 outlines arithmetic means and standard deviation .

Table 14. Arithmetic Mean and Standard Deviation of the Impact of the development of Information Security System on the Effectiveness of E-Accounting Information System

Statements	Arithmetic mean	Standard Deviation	Answer Orientation
Following statements measure to which extent the development of information security as a part of ICT infrastructure in the banks contributes to achieve the effectiveness of e-accounting information systems in the banks			
The role of developing information security in achieving information confidentiality			
Developing information security and protection programs contributes to maintain accounting information confidentiality	3.71	0.49	Very influential
Developing physical means of information protection contributes to maintain accounting information confidentiality	4.41	0.90	Very influential
The banks develop policies and procedures of information protection and security, thereby maintaining information confidentiality	4.71	0.49	Extremely influential
Developing information protection systems contributes to the classification of accounting information, confidentiality, thereby tightening control procedures according to the degree of information confidentiality			
Developing information security and protection such as anti-virus and firewalls contributes to achieve the integrity of accounting information	4.71	0.49	Extremely influential
Developing information security and protection programs and amending and deletion processes performed by the employees, clients and users contributes to achieve the integrity of accounting information	4.71	0.49	Extremely influential
The banks develop the policies and procedures of information protection and security in accordance with technical advance, thereby maintaining the integrity of accounting information	4.14	0.9	Very influential
The development of copying systems of accounting systems and shifting from traditional electronic copying processes to modern systems of e-clouds contributes to achieve the integrity of accounting information	3.71	0.49	Very influential
The role of developing information security programs in ensuring information access (readiness(
Developing information security and protection such as anti-virus and firewalls contributes to the easiness of accessing the information	4.71	0.49	Extremely influential

at any time .			
Developing information security and protection such as anti-virus and firewalls contributes to the possibility of information access without problems or errors	4.71	0.49	Extremely influential
The banks develop the policies and procedures of information protection and security for ensuring information readiness and security	5	0	Extremely influential
The bank has security department which control and develop all activities of information security in order to ensure the continuity of systems and processes	5	0	Extremely influential
The role of the development of information security in achieving user satisfaction			
The development of information security contributes to increase the trust of e-banking data and transactions	5	0	Extremely influential
the users find the systems easy to use and understandable due to the development they have witnessed	5	0	
Total	4.43	0.18	Extremely influential

The results of statistical analysis have indicated that the arithmetic mean of study statements has been 4.43 which is higher than hypothetical mean. Thus, it has illustrated that the development of information security system as a part of ICT infrastructure influences the effectiveness of e-accounting information systems .

In addition, arithmetic mean of the statements which form second hypothesis has been compared with standard mark 3- hypothesis acceptance standard- by using t-test as stated in table 15 .

Table 15. Arithmetic Means, Standard Deviations and T-test of Statements which form second Hypothesis

The development of information security system as a part of ICT infrastructure influences the effectiveness of e-accounting information systems .	Number	Arithmetic Mean	Standard Deviation	T-Value	Freedom Degree	Statistical Significance
	50	3.37	18.	35.686	21	000.

Table 15 has indicated that there are statistical differences at ($\alpha=0.05$) between arithmetic mean and standard deviation 3; T-value has been 35.686; statistical significance has been 0.000. Thus, this hypothesis, stating that there is no statistically significant relationship between the development of information security system as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks, has been rejected; alternative hypothesis, stating that there is statistically significant relationship between the development of information security system as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks , has been accepted .

20. Results and Recommendations

Results

Based on statistical analysis, the study found the following results

There is statistically significant relationship between the development of ICT infrastructure, including physical and financial resources, software, databases, communication and networks, and its security and the effectiveness of accounting information systems in Jordanian banks .

There is statistically significant relationship between the development of physical resource as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks .

There is statistically significant relationship between the development of software as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

There is statistically significant relationship between the development of databases as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

There is statistically significant relationship between the development of human resources as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

There is statistically significant relationship between the development of communication and networks as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

There is no statistically significant relationship between the development of information security system as a part of ICT infrastructure and the effectiveness of e-accounting information systems in Jordanian banks.

Recommendations

The following recommendations for research have been based on the study findings :

Jordanian banks shall continually pay a special attention to all developments of information technology field and its impact on accounting information systems .

Security controls of accounting information systems shall be paid a special attention in order to ensure the confidentiality, reliability and integration of accounting information.

Training programs, workshops of information technology and accounting information systems shall be held for the employees, in particularly the accountants, in order to provide a specialized knowledge on e- systems.

The accountants shall be engaged in the stages of purchasing electronic and controlling accounting systems; their opinions shall be taken in order to provide the appropriate information and internal controls .

Implementation process of the policies and procedures of information systems and security shall be followed up and objectively evaluated .

All policies and procedures shall be amended in order to keep up with the developments of information technology systems and security and achieve the properties of accounting information .

References

- Abdullah, K. A., & Qarani, K. (2007). Banking Environment and Its Impact on Efficiency and Effectiveness of accounting Information Systems: Analytical Study on Commercial Banks in Jordan. *Jordanian Journal of Humanities and Social Sciences*, 10, 1-19.
- Al-Ammari, A. (2004). Accounting Information System and Administrative Making-Decision in Commercial Banks. *Journal of Humanities, Algeria*.
- Al-Dahrawy, K. A., & Mohammad, S. K. (2002). *Accounting Information Systems*. New University House, Cairo, Egypt.
- Al-Matarneh, G. F., & Al-Shrairi, J. A. (2010). Impact of Information technology on Effectiveness of Accounting Information Systems in Jordanian Pharmaceutical Companies. *Al-Manara Magazine*, 16(1), 97-120.
- Al-Qataweh, A. (2005). *Impact of Using Information Technology On Effectiveness of Accounting Information System: A Study on Bank and Insurance Facilities Listed in Amman Stock Market In the First Market* (Unpublished PhD Thesis). Arab Academy of financial and banking Sciences, Amman, Jordan.
- Al-Shami, A. Y. (2009). *Impact of Qualitative Properties of Accounting Information On Quality of Financial Reports of Commercial Banks working in Republic of Yemen* (Unpublished Master Thesis). Middle East University For Graduate Studies, Jordan .
- Fadel, A. (2007). *Extent of Impact of Environmental, Regulatory, Behavioural, Technological Factors On Effectiveness of Accounting Information Systems In Commercial Banks In The Republic of Yemen* (Unpublished Master Thesis). Al- Al-Bayt University, Jordan.
- Karfou, A. T., & Muhsen, L. (2016). Impact of Using Automated Accounting Information Systems On The Effectiveness of Information. Diyala University. *Journal of Management and Economics, Al-Mustansiriya University, Iraq*.
- Moskov, S. (2002). *Accounting Information Systems For Making- Decisions: Concepts and Applications* (Kamal Al-Din Saeed and Ahmad Hajjaj, Trans.). Mars Publishing House, Al-Riyadh: Saudi Arabia.
- Qassem, A. M. (2004). *Analysis and Design of Accounting Information Systems* (1st ed.). Dar Al-Thaqafa For

Printing, Publishing and Distribution.

- Shubair, A. A. (2006). *Role Of Accounting Information In Administrative Decision-Making: Applied Study on Joint-Stock Companies in Palestine* (Unpublished Master Thesis). Gaza University, Palestine .
- Syiam, W. Z. (2004). *Evaluation of Computerized Accounting Information Systems In Jordanian Commercial Banks In the Light of Technological Development*. Research presented to 6th Professional Scientific Occupational Conference of the Association of Certified Public Accountants, Amman, Jordan.

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/>).

Gender Budgeting Implementation in Italian Regional Governments: Institutional Behavior for Gender Equality and Women's Empowerment

Carla Del Gesso¹

¹ Department of Economics, University of Molise, Campobasso, Italy

Correspondence: Carla Del Gesso, Department of Economics, University of Molise, Campobasso, 86100, Italy.

Received: November 11, 2019

Accepted: November 26, 2019

Online Published: November 28, 2019

doi:10.5539/ibr.v12n12p110

URL: <https://doi.org/10.5539/ibr.v12n12p110>

Abstract

Gender budgeting has great potential to promote the United Nations 2030 Agenda concerning gender equality and women's empowerment. This article shares some reflections on the need to implement and institutionalize gender budgeting at the regional level, both by embedding gender issues into the overall regional government budgetary process and by promoting gender equality disclosures. An empirical insight into the institutional behavior of Italian regional governments is provided. The study seeks to understand how the gender perspective is integrated into the governmental strategy that informs the entire budgetary cycle of Italian regional governments, by performing a thematic analysis of the key regional planning documents. The local promotion of gender budgeting implementation through institutional norms and the practice of gender performance reporting in Italian regional governments are also addressed. The results highlight that although there are differing degrees of commitment to gender equality and women's advancement within the regions, the gender perspective is quite homogeneously integrated into the governmental strategy. Four gendered transversal thematic priorities are identified: the encouragement of women's employment, the promotion of equal gender opportunities, the enhancement of social inclusion, and the combatting of gender-based violence. Furthermore, although nine regional laws establish gender performance reporting, additional reporting tools integrating non-financial information on gender issues are included solely in a small part of the regional government performance reporting systems. A greater organizational and cultural commitment to the institutionalization of the gender budgeting idea is needed in order to allow stakeholders to appreciate the government's value outcomes in all their dimensions, including the gender-related social dimension.

Keywords: gender budgeting, gender-responsive policies, gender performance reporting, regional governments, sustainable development goals

1. Introduction

1.1 Background and Rationale for the Study

Gender budgeting (also called gender responsive budgeting or even gender sensitive budgeting) refers to a systematic approach involving tools, techniques and procedures of the budget cycle to integrate a gender perspective into all stages of the budgetary process, from the planning phase to the final reporting (Downes et al., 2017; Galizzi et al., 2018; Steccolini, 2019). This perspective serves to inform the allocation of government budgets to ensure that spending and revenue allocations address the needs and interests of different social groups, in order to give them equal opportunities and erase gaps and social discrimination linked to sex, ethnicity, class, poverty, location and age (Sodani & Sharma, 2008). Indeed, by adopting a gender lens, gender budgeting is intended to "achieve more gender equal outcomes as a consequence" (O'Hagan, 2018: p.19). Gender budgeting entails therefore an integrated approach to the budgeting system, which is adopted in order to incorporate (and disclose information about) gender-oriented goals within the strategic plans, programs, and performance reports of an institution. Gender budgeting also represents a tool with which to achieve public sector objectives of improving effectiveness, efficiency, accountability and transparency, thus supporting the principles of good (public) governance and democratic participation (Budlender & Hewitt, 2002; Corner, 2005; Pollifroni, 2005; 2008; Brody, 2009; Tommaso et al., 2019). Consequently, the implementation of gender-responsive budget statements - that highlight gender priorities and related goals and outcomes - can constitute a pillar of sustainable

economic development and social progress, given their great potential to reduce persistent gender disparities worldwide (Villagomez, 2004; Rubin & Bartle, 2005; Pulejo, 2011a; Chakraborty, 2016).

Gender budgeting has been internationally recognized as a key instrument for the promotion of real gender equality and the economic and social empowerment of women, which are very current issues in the field of country sustainable development (Pulejo, 2011a; Addabbo et al., 2015; Koehler, 2016; Leach et al., 2016). Reducing gender-related discrimination, female unemployment, violence against women, persistent gender pay gaps in education and work, and improving family life conditions and so forth, are among the most important priorities of modern society. Indeed, the aim to “achieve gender equality and empower all women and girls” matches specifically one of the Sustainable development goals (SDGs) of the United Nations 2030 Agenda (SDG number five), which commits policymakers, governments, organizations and all stakeholders worldwide to step up their efforts to alleviate inequalities relating to gender (Razavi, 2016). To contribute to this, Europe has also developed a common approach to promoting equality between men and women as a central drive for sustainable economic growth of European countries. In particular, the European Union member states have adopted the EU Gender Action Plan 2016-2020 (GAP II) which aims to promote gender budgeting at national and local levels in partner countries (European Commission, 2018). Accordingly, an institutional approach to the promotion of gender budgeting implementation in order to contribute to the achievement of the goals of United Nations 2030 Agenda is highly topical, and therefore needs more attention both from scholars and practitioners.

However, the interest in gender budgeting from public administration and accounting scholars appears to have been relatively limited, despite growing political, social and economic attention at the macroeconomical level (Marks Rubin & Bartle, 2005; Siboni et al., 2016; Galizzi et al., 2018). Furthermore, although there has been no lack of countries, both across and beyond Europe, that have introduced gender budgeting into their budget-making (Chakraborty, 2016; Quinn, 2016; Stotsky et al., 2016), gender budgeting appears so far to have been implemented weakly and ineffectively (O’Hagan, 2018). In Europe in particular, a legislative framework, from national and regional governments, has developed across countries to support gender budgeting implementation. Legislation began with the Beijing Platform for Action – formed in 1995 at the Fourth World Conference on Women – which first institutionalized gender budgeting but despite this, the adoption of gender budgeting remains a challenge in different contexts (Quinn, 2017; O’Hagan & Klatzer, 2018).

In order to achieve the goal of gender equality and women’s empowerment, it is essential to advocate gender budgeting at the institutional level to promote and stimulate greater application and thus support effective gender mainstreaming in government strategies, decision-making, programs, processes and reporting. In other words, given the potential gender budgeting has in contributing to the closure of gender gaps, this instrument needs to become institutionalized further in public policy and society in order to encourage successful implementation (Stotsky et al., 2016; Steccolini, 2019). In particular, its establishment within the budgetary cycle and the performance reporting processes can also be made effective through regulations, norms and guidelines. Regional governments worldwide, in virtue of the importance of favoring a sustainable and inclusive development of their territories (Morgan, 2009), have a significant role to play in promoting gender budgeting implementation at a local level to make gender equality and women’s empowerment a reality. Thus, in the face of their commitment to tackle gender diversities, regions need to integrate gender-related goals into their internal budgetary processes. In addition, they need to ensure that gender budgeting is established as an officially recognized accounting and accountability practice.

The background outlined above provides the motivation for this research, which seeks to present an empirical insight into the institutional behavior of Italian regional governments with respect to gender budgeting implementation. Specifically, this study aims to explore the degree to which gender budgeting is institutionalized in Italian regions in terms of their concrete commitment to achieving gender equality and women’s empowerment, as a goal of the United Nations 2030 Agenda. The following research questions are addressed:

RQ₁: How is the gender perspective integrated into the governmental strategy informing the budgetary cycle of Italian regional governments?

RQ₂: Is gender budgeting implementation promoted by Italian regions in their territories through institutional norms, in order to encourage local institutions to disclose information on their commitment to gender equality?

RQ₃: Is the reporting on gender performance information a common practice in Italian regional governments?

In the case of Italian regions, as bottom-up promoters of gendered initiatives, the interest in gender budgeting appears to be recent with some legislative movement in the last decade. Indeed, although not extensively and

systematically widespread, gender-responsive budget statements have been implemented in the form of voluntary final gender-responsive reports used to disclose information covering gender issues, related to performance and impacts (Gori et al., 2018; Tommaso et al., 2019). In this study, the current experience of Italian regions in institutionalizing gender budgeting implementation is analyzed by focusing attention firstly on their core regional planning documents, and secondly on their publication of norms and final reports substantiating gender-responsive budgeting. In particular, the fundamental document of regional general planning is the Regional Economic and Financial Document (DEFER, or “Documento di Economia e Finanza Regionale”) which was mandatorily introduced in Italian regional governments, starting in 2015, with decree no. 118/2011 on public accounting harmonization (decree no. 118/2011, paragraph 36, subsection 3; and subsequent modifications and additions). The DEFER contains the regional strategic objectives in the various policy areas (economics, social, environmental, etc.) in which the region will intervene during the reference period relating to three years. It is a strategic planning document from which spending and revenue allocations of the regional budget derives, therefore informing the entire regional budgetary cycle.

This article shares some reflections on the need to implement and institutionalize gender budgeting at the regional level, both by embedding gender issues into the overall regional government budgetary process and by promoting gender equality disclosures. It has implications for policymakers, administrators and practitioners in regional and local governments, researchers and all other actors involved in promoting gender budgeting development, both for the budgetary process of governments and the mainstream of scholarly research into public management and accounting. The article continues below with an in-depth look at gender budgeting to support gender equality disclosures through a literature review. The subsequent section 2 better identifies the analyzed target population and materials and explains the methodologies used to answer the research questions. The research results are presented in section 3. The article concludes by discussing the results in section 4, which highlights useful elements for further research and some practical recommendations for better gender budgeting implementation.

1.2 A Review of Previous Literature

Gender budgeting was first implemented in Australia in the mid-1980s. By the mid-1990s, it had been introduced in numerous countries throughout the world thanks to the impetus of the Beijing Platform for Action of United Nations in 1995, which called for the integration of a gender dimension into budgetary processes (Sharp & Broomhill, 2002). Today, gender budgeting initiatives have been introduced worldwide both at the national and subnational levels, with varying forms, aims, approaches, scopes and outcomes based on the different political contexts in which they are implemented (Stotsky, 2006; Chakraborty, 2016; Klatzer et al., 2018). Scholarly studies on these initiatives have also increased since the 1990s by highlighting that gender budgeting has been used – “as a disruptive and radical approach to decision-making on public resources and public policy” (O’Hagan, 2018: p.37) – to engender macroeconomic policy aimed at reducing gender inequalities and advancing gender issues, such as tackling violence against women or enhancing women’s rights, their status, their access to education or their working conditions, etc. (Budlender & Hewitt, 2002; Budlender, 2006).

In short, there has been a growth in gender budgeting and several governments around the world have integrated aspects concerning gender issues into budget in order to address gender equality and women’s development (Hopper, 2019). Nevertheless, gender budgeting has not been sufficiently considered in the managerial and accounting literature and, as has been highlighted in particular recently, the field of the gender agenda needs greater engagement from accounting scholars (Broadbent, 2016; Siboni et al., 2016).

Gender issues are high up on the agendas of private and public organizations (UN, 2014; UN Women, 2019). This entails the need for an organization to disclose information about their commitment to gender equality, as stakeholder demand for gender performance information increases (Miles, 2011). As Hossain and colleagues argue, providing gender-related disclosures is necessary to meet the increasing call for transparency from and the accountability needs of stakeholders who have a right to be informed about organizational gender practices and matters related to gender equality (Hossain et al., 2016). Moreover, as highlighted by Hopper, a broader vision of accounting and accountability that goes beyond financial value information is required in order to drive organizations towards achieving the compelling global sustainable development goals of the United Nations 2030 Agenda (Hopper, 2019). Gender equality is an important part of this Agenda, which calls for greater social responsibility to ensure well-being and prosperity for the entire society worldwide. In line with this call, various authors have considered gender issues in their studies on corporate social responsibility and stakeholder accountability concerns. Khlif & Achek (2017) have found however, in their review of the accounting literature dealing with gender issues, that most of these studies have placed emphasis on equal opportunities for women on the board composition and leadership positions of private companies (Grosser & Moon, 2005; Grosser, 2009,

Fernandez-Feijoo et al., 2014; Velte, 2017).

Gender balance as a social outcome is one of the multiple dimensions of the value an organization creates, be it public or private. This is because the creation of value includes relevant social aspects, as well as economic, environmental and whole-system aspects of sustainability development and corporate social responsibility (Bebington & Dillard, 2008; Henriques, 2013). This is emphasized by the growing literature on sustainability reporting and integrated reporting, which argues that performance reporting systems should include, with a more holistic and comprehensive view of performance, all dimensions of the organizational value creation and thus provide stakeholders with economic, social, environmental, and governance (financial and non-financial) information (Dumay et al., 2016; Adams, 2017; de Villiers & Maroun, 2017; Manes-Rossi et al., 2018; Del Gesso, 2019). Considering gender diversity matters therefore, has the ability to create an organization's value and consequently, organizational disclosures need to include gender impact information. Gender equality disclosures are also supported by the Global Reporting Initiative (GRI) which, in promoting sustainability reporting practices in private and public organizations internationally, includes gender related indicators in its "GRI Sustainability Reporting Framework" and enacts specific "Social Standards", namely the "GRI 401-Employment" and the "GRI 405-Diversity and Equal Opportunity" Standards that help organizations to report on their social impact related to gender (GRI & IFC, 2009; GRI website). Despite this, although research on company reporting on gender equality has been developed (e.g., Fernandez-Feijoo et al., 2014) and while sustainability reporting has attracted attention from accounting researchers (e.g., de Villiers & Maroun, 2017), little research has analyzed organization disclosures on gender issues within the public sector budgetary process.

Some recent experiences of gender budgeting have been analyzed in the Italian public sector. One study focused on gender equality disclosures in the public university context (Galizzi & Siboni, 2016). Some other studies, in contrast, have dealt with gender budgeting implementation in regional and local governments (Galizzi et al., 2018; Gori et al., 2018; Tommaso et al., 2019). In particular, Gori and colleagues, who explored local authority commitment to gender mainstreaming by examining the strategic planning documents of the regional chief-towns, have pointed out the need to develop a clear framework, with respect to strategies, resources, and performance and impact indicators, to issue effective gender policies (Gori et al., 2018). Furthermore, Galizzi and colleagues analyzed the fully developed practice of gender budgeting in the municipality of Bologna and emphasized how gender budgeting is in line with the principles of public governance processes, such as equity, transparency, participation and accountability (Galizzi et al., 2018). In addition, Tommaso and colleagues examined gender budgeting experiences in Italian local governments by focusing on rules and gender-responsive reports implemented at the regional level, and highlighted the opportunity these reports provide to advance public sector management and public governance processes (Tommaso et al., 2019). This research revealed, however, a sporadic implementation of gender reports and a widespread methodological homogeneity in approaching their adoption. Previous literature has also shown that gender budgeting in Italian regional and local governments is basically designed as an instrument of the reporting stage, while a more holistic budgetary approach to gender issues is required, starting with a definition of the policies that differently determine male and female well-being and leading to the measurement and reporting of their impact (Galizzi, 2010; Addabbo et al., 2011; Pulejo, 2011b).

The gender budgeting potential for a budget reform has already been highlighted (Marks Rubin & Bartle, 2005); the recent work of Steccolini (2019) has also emphasized the need for the institutionalization of gender budgeting. Therefore, although some gender budgeting experiences at the Italian regional level have been analyzed in previous work, the originality of the present research lies in its investigation of gender budgeting implementation from the standpoint of the need to institutionalize it as an established practice of accounting and accountability processes; this is essential so that gender budgeting is able to deliver long lasting results to realize gender equality and women's rights. In other words, the gender perspective needs to be systematically embedded within the corporate budgetary systems of regional governments (and drive their institutional behavior and commitment) to create gender balance as a social value.

2. Materials and Methods

This research is qualitative in nature. It aimed to investigate the institutional commitment of Italian regional governments, with respect to the United Nations 2030 Agenda, to achieving gender equality and women's advancement through gender budgeting implementation.

In Italy, the promotion of gender budgeting appears to have been influenced by a bottom-up movement led by local governments but without coordination, indications for method, tools or funding from central government. Indeed, no specific norms have been enacted by the central government. However, references to gender

budgeting implementation do appear in two laws. Firstly, decree no. 150/2009, which in imposing the adoption of a performance measurement and management cycle for all Italian public administrations, requires them to report on gender performance in their annual performance reports (decree no. 150/2009, paragraph 10, subsection 1*b*). Secondly, law no. 196/2009, which in defining the process of the reform and harmonization of public sector accounting, affirms the need for the adoption of a gender budget as a reporting tool to assess the different impacts of budgetary policies on men and women in order to pursue gender equality (law no. 196/2009, paragraph 38-septies; and subsequent modifications and additions).

Therefore, this study focuses on a target population consisting of all 20 Italian regional governments. Regional governments are the largest level of territorial subdivision in Italy, above the provincial and municipal levels. A documentary data collection and analysis were carried out between June and September 2019 in order to answer the three research questions outlined in the Introduction that were addressed sequentially.

Firstly, given the role regions play in promoting gender equality policies in their territories, the study sought to understand how the gender perspective is currently established within their corporate budgetary cycles (RQ_1). To this end, the DEFR for the three-years 2019-21 was gathered from the regions' official websites where it is generally published under the heading "Planning" or "Finances". The decision was made to analyze the DEFR as this mandatory planning document initiates the budgetary process of Italian regional governments, by defining the programming guidelines (or policy objectives) of the government action that guides expenditure allocations both in the annual financial budget (for the year 2019) and in the triennial financial budget (for 2019-2021). Indeed, its narrative structure allows the Regional Executive Council to set out all governmental policies and programs to be implemented over the three-years, as well as the resources needed for the pursuit of regional planning objectives. The three-year planning cycle of the regional budgeting therefore necessarily starts with (and is supported by) the DEFR which constitutes an essential tool for the government's strategic control. In reality, during this study, the Italian regions were in the process of publishing the new DEFR 2020-22 but very few had actually published it, thus the only available document for the entire target population was the DEFR 2019-21 which is currently in force. However, for two regions (Lombardy and Trentino Alto-Adige) the DEFR 2019-21 was not available on the respective websites and consequently, the last available document was analyzed, which related to the period 2017-2019.

The collected DEFR documents were examined by means of a thematic analysis in order to identify the gendered thematic priorities set out by Italian regional governments. Thematic analysis is an independent research approach within the qualitative descriptive methodologies defined as "a method for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006: p.79; Vaismoradi et al, 2013; Nowell et al., 2017). This commonly used method for qualitative research was chosen because it allows themes within a data system which are important to the description of a phenomenon, to be identified (Daly et al., 1997). Thus, it appeared to be particularly appropriate to aid a deeper analysis of the DEFRs to identify all the thematic categories regarding gender-responsive policies and their related disclosures.

In order to build a set of meaningful and established themes, thematic analysis requires a six step process to be carried out. The steps are: familiarization with the data, the generation of initial codes, the search for themes, the reviewing of themes, the definition and naming of themes, and the production of a report (Braun & Clarke, 2006; Nowell et al., 2017). By following this iterative process, thematic analysis was performed on all 20 DEFRs with the help of the Qualitative Data Analysis software "QDA Miner Lite". The length of the documents was very variable and ranged from 37 to 472 pages. The documentary raw data were therefore explored, and themes (i.e. the gender-related policy priorities set out) were inductively defined and extrapolated. In particular, as a first step, the DEFRs were carefully read so that familiarity with their content could be achieved. Subsequently, a systematic coding for potential themes was done and then, similar codes that were common to the 20 cases were grouped together. In the following step, all the collected codes were sorted to form themes and subthemes. These were then reviewed to check that the data had been well-arranged and to finalize the themes and subthemes; finally, a thematic matrix was defined.

Once the DEFRs were examined through thematic analysis, the study sought to determine whether the Italian regions are promoting gender budgeting implementation in their territories through institutional norms that encourage local provinces and municipalities to disclose information on their commitment to gender equality (RQ_2), such as through regional laws and guidelines. Thus, in order to answer the second research question, an electronic search was conducted within the official regional bulletins (containing laws and regulations) published during the last decade to review gender budgeting-related legislation.

Finally, the study also sought to determine to what extent reporting on gender performance information is a

common practice in Italian regional governments (RQ_3). In order to address the last research question, an analysis of regional official websites was carried out to search for published non-financial performance reports which disclose information on gender impacts, such as gender-responsive reports, social reports and sustainability reports, in addition to traditional financial reporting statements.

3. Results

The results of the study in relation to the three research questions are described below.

Table 1 shows the results relating to RQ_1 (How is the gender perspective integrated into the governmental strategy informing the budgetary cycle of Italian regional governments?). The thematic analysis conducted on the DEFRs across 20 Italian regional governments made it possible to distinguish four main global themes. These themes were established through the identification of a specific set of subthemes that represent the gender-related policy priorities integrated into the DEFR documents. As detailed in Table 1, the integration of a gender perspective into governmental strategy, which subsequently informs the entire budgetary cycle of Italian regional governments can be expressed through the following four themes: the encouragement of women's employment; the promotion of equal gender opportunities; the enhancement of social inclusion; and the combatting of gender-based violence.

The total number of regions that include the four aforementioned themes within their DEFRs and thus integrate them into their budgetary cycle, is reported in Table 1; the regions that integrate each subtheme are also detailed. As can be seen from this table, the identified themes are all transversal themes, as each theme is recurrent in most Italian regional policies. This would suggest that the experience of promoting gender equality and women's empowerment is homogeneous on the whole. However, by looking at the various subthemes, it can be seen how some regions stand out because they are much more proactive than the others. Indeed, some subthemes are not common, rather they characterize only a part of the regional experience. This is the case of the subtheme "promote gender equality by implementing reporting on gender impact", which is only considered by three regions (Calabria, Emilia-Romagna and Piedmont); in addition, the subtheme "encourage full equity in remuneration" is relatively isolated because only two regions (Friuli-Venezia Giulia and Veneto) have integrated it into their governmental strategy. In contrast, almost all regions (19 regions) have addressed the subtheme "contrast poverty by aiding job placement and income support to vulnerable people" in order to enhance social inclusion of some categories at risk of exclusion, such as the elderly, the disabled, single mothers, and the unemployed who may be experiencing a situation of particular economic fragility. Moreover, several regions (14 regions) have integrated into their DEFRs the political intention to "increase women's access to the labor market through active labor policies, support measures and training"; likewise, there are also 14 regions that have included in their DEFRs the general principle of "promoting a regional policy guaranteeing equal opportunities without discrimination for women and men in work and in social life", as well as their commitment to "support female victims of violence and their children".

Table 1. Integration of the gender perspective in the governmental strategy of Italian regional governments

Themes	Subthemes	In which regions	Total number of regions
<i>Encourage women's employment</i>	<ul style="list-style-type: none"> • Increase women's access to the labor market through active labor policies, support measures and training; 	Abruzzo; Basilicata; Calabria; Emilia-Romagna; Friuli-Venezia Giulia; Lazio; Liguria; Lombardy; Marche; Molise; Piedmont; Puglia; Tuscany; and Veneto.	15 regions
	<ul style="list-style-type: none"> • Improve women's employment through family policies aimed at reconciling home and work life; 	Calabria; Emilia-Romagna; Friuli-Venezia Giulia; Liguria; Molise; Piedmont; Puglia; Valle d'Aosta; and Veneto.	
	<ul style="list-style-type: none"> • Support women's access to career opportunities, decision-making and entrepreneurship; 	Emilia-Romagna; Friuli-Venezia Giulia; Lombardy; Piedmont; and Veneto.	
	<ul style="list-style-type: none"> • Encourage full equity in remuneration. 	Friuli-Venezia Giulia; and Veneto.	
<i>Promote equal gender opportunities</i>	<ul style="list-style-type: none"> • Promote gender equality by implementing reporting on gender impact; 	Calabria; Emilia-Romagna; and Piedmont.	14 regions
	<ul style="list-style-type: none"> • Promote a regional policy guaranteeing equal opportunities without discrimination for women and men in work and in social life. 	Abruzzo; Basilicata; Calabria; Emilia-Romagna; Friuli-Venezia Giulia; Lazio; Lombardy; Marche; Piedmont; Puglia; Sicily; Tuscany; Valle d'Aosta; and Veneto.	
<i>Enhance social inclusion</i>	<ul style="list-style-type: none"> • Improve women's well-being through educational projects, gender-specific care, or sport; 	Abruzzo; Basilicata; Emilia-Romagna; Friuli-Venezia Giulia; Liguria, and Lombardy.	19 regions
	<ul style="list-style-type: none"> • Contrast poverty by aiding job placement and income support to vulnerable people; 	Abruzzo; Basilicata; Calabria; Campania; Emilia-Romagna; Friuli-Venezia Giulia; Lazio; Liguria; Lombardy; Marche; Molise; Piedmont; Puglia; Sardinia; Sicily; Tuscany; Umbria; Valle d'Aosta; and Veneto.	
	<ul style="list-style-type: none"> • Promote social inclusion through targeted social measures and services. 	Calabria; Emilia-Romagna; Friuli-Venezia Giulia; Lazio; Lombardy; Marche; Molise; Piedmont; and Puglia.	
<i>Contrast gender-based violence</i>	<ul style="list-style-type: none"> • Support female victims of violence and their children; 	Abruzzo; Basilicata; Calabria; Emilia-Romagna; Friuli-Venezia Giulia; Lazio; Liguria; Lombardy; Marche; Piedmont; Puglia; Sicily; Tuscany; and Veneto.	14 regions
	<ul style="list-style-type: none"> • Promote territorial networks, partnerships and information campaigns to raise awareness of the gender violence issue; 	Abruzzo; Emilia-Romagna; Lombardy; Marche; Piedmont; Puglia; Tuscany; and Veneto.	
	<ul style="list-style-type: none"> • Support anti-violence centers and shelters. 	Abruzzo; Calabria; Emilia-Romagna; Lombardy; Marche; Piedmont; Puglia; Tuscany; and Veneto.	

Source: data analyzed from the results of the thematic analysis of the DEFRs 2019-21 of Italian regional governments.

Table 2 shows the results in response to RQ_2 (Is gender budgeting implementation promoted by Italian regions in their territories through institutional norms, in order to encourage local institutions to disclose information on their commitment to gender equality?). Nine regions out of twenty have enacted a law promoting gender budgeting establishment from 2007 to date. The nine regional laws are listed in chronological order in Table 2, which reports what they state about gender budgeting implementation at the local level. As is detailed in this table, eight laws are specifically concerned with gender issues, while one law (in the case of Calabria) is a general legal provision in which only the government's adoption of gender budgeting is promoted. Therefore, eight regions promote gender budgeting implementation both in their budgetary process and in those of the local authorities in their territories; however, only two of these regions (Emilia-Romagna and Piedmont) also provide guidelines for their local authorities. The regional laws establishing gender budgeting are quite homogeneous in their objectives and scope. Although some laws also establish specific training and updating activities to instruct

staff on how to apply gender budgeting and prepare gender-responsive reports, the requirement of other paragraphs are somewhat identical.

Table 2. The promotion of gender budgeting implementation in Italian regional laws

Region	Regulatory law	The establishment of gender budgeting at the local level		Were guidelines provided?
		Establishment of government adoption	Promotion among the regional local authorities	
Puglia	Law no. 7 from 21 March 2007: "Rules for gender policies and work-life balance services".	"The Region in the report that accompanies both the forecasting budget and the final financial reporting statements includes the gender budget as a tool for monitoring and assessing the impact of regional policies on men and women". (Paragraph 19, subsection 1).	"The Region promotes the dissemination of gender budget among the Apulian local authorities through initiatives, awareness raising and information from the Regional Resource Center for Women". (Paragraph 19, subsection 3).	No
Calabria	Law no. 15 from 13 June 2008: "General measures of a legal and financial type"	"[...] to improve citizen participation and comprehensibility and transparency of the budget, the Regional Executive Council prepares in addition to the social report, a gender-responsive report". (Paragraph 12, subsection 1).	---	No
Liguria	Law no. 26 from 1 August 2008: "Integration of gender equal opportunities policies in the Liguria Region".	"The Region adopts gender budgeting as a social reporting tool that allows the integration of the gender perspective into economic planning documents in which public policies are defined and summarized". (Paragraph 8, subsection 1).	"The Region promotes the dissemination of the gender budgeting tool among all local authorities. [...] With a specific act, the Regional Executive Council dictates the guidelines and identifies the methodologies for the design and implementation of the gender budget". (Paragraph 9, subsections 1 and 3).	No
Piedmont	Law no. 8 from 18 March 2009: "Integration of gender equal opportunities policies in the Piedmont Region and provisions for the establishment of gender budgets".	"For the purposes of this law, gender budgeting consists of assessing the impact of budgetary policies on gender by identifying gender-sensitive areas in order to promote equality of opportunity between men and women". (Paragraph 3, subsection 1).	"The Regional Executive Council [...] prepares a vademecum relating to the guidelines for the implementation of gender budgets in order to promote and solicit their adoption in local authorities". (Paragraph 5, subsection 2).	Yes
Tuscany	Law no. 16 from 2 April 2009: "Gender citizenship".	"The gender budget, drawn up by the Regional Executive Council, is a tool for monitoring and evaluating regional policies on equal opportunities in the context of the overall legislative evaluation of regional public policies". (Paragraph 13, subsection 1).	"The Region also promotes the dissemination of the gender budget among local authorities for the purpose of guiding actions for work-life balance". (Paragraph 13, subsection 3).	No
Friuli-Venezia Giulia	Law no. 20 from 16 November 2010: "Measures for the promotion of social reporting in the Administrations of Friuli-Venezia Giulia".	"The present law pursues the objective of developing the ability of [...] regions and local authorities to implement effective social reporting processes, through documents such as the annual social report, the mandate social report, the environmental report, the gender-responsive report [...] and other social reporting documents". (Paragraph 1).	"The present law pursues the objective of developing the ability of [...] regions and local authorities to implement effective social reporting processes.... (Idem as paragraph 1).	No
Marche	Law no. 23 from 23 July 2012: "Integration of gender equal opportunities	"The gender budget, drawn up by the Regional Executive Council, is a tool for monitoring and evaluating regional policies on equal opportunities, as part of the overall assessment of regional	"The Region also promotes the dissemination of the gender budget among local authorities for the purpose of guiding action for work-life balance".	No

	policies in the Region”.	public policies”. (Paragraph 7, subsection 1).	(Paragraph 7, subsection 3).	
Emilia-Romagna	Law no. 6 from 27 June 2014: “Framework law for equality and against gender discrimination”.	“The gender budget, as social reporting of the integration of a gender perspective in the economic planning of public policies [...] is prepared annually by the Regional Executive Council, coinciding with the presentation of the annual report on the basis of the guidelines and with the methods established by it, and involves the adoption of a gender impact assessment of budgetary policies”. (Paragraph 36, subsection 1).	“The Region also promotes the dissemination of the gender budget among local authorities in order to promote positive action for reconciling life and work times and sharing care responsibilities”. (Paragraph 36, subsection 3).	Yes
Umbria	Law no. 14 from 25 November 2016: “Rules for gender policies and for a new civilization of relations between women and men”.	“The gender budget, approved by the Regional Executive Council, is a tool for monitoring and assessing the impact of regional policies on men and women”. (Paragraph 47, subsection 1).	“The Region promotes its dissemination among local authorities by sharing methodologies, support, and implementation support”. (Paragraph 47, subsection 1).	No

Source: elaboration from the review of the regulatory laws on gender budgeting published in the official regional bulletins.

Table 3 shows the results in relation to RQ_3 (Is the reporting on gender performance information a common practice in Italian regional governments?). In particular, it shows the behavior of Italian regions in respect to the dissemination of gender-responsive and social reports that disclose gender performance information in terms of the impacts of the implemented policies on men and women. As can be seen, regional government reporting of this information in addition to their traditional financial reporting is sporadic. Indeed, additional reporting tools that integrate non-financial information about gender issues are included solely in a small part of the Italian regional government performance reporting systems, although several regions have integrated some disclosures into their annual performance reports to comply with the provisions of national decree no. 150/2009. Specifically, only three regions are now reporting on gender performance or have recently reported on it with specific gender-responsive reports (Emilia-Romagna, Tuscany and Piedmont), whereas some regions have only published a single edition of such a report, more than a decade ago (such as the Marche and the Valle d’Aosta). A positive note is that gender budgeting projects are on the agenda in many regions, meaning that the implementation of performance reporting on gender issues is scheduled for the near future.

Table 3. Regional government reporting on gender performance information

Region	Additional reporting tools disclosing non-financial information on gender performance	Projects of implementing gender performance reporting
Abruzzo	Some disclosure is integrated into the Annual Performance Report.	Resolution no. 380 of the Regional Executive Council from 1 July 2019 which plans to prepare a Gender-Responsive Report by 2021.
Basilicata	Some disclosure is integrated into the Annual Performance Report.	---
Calabria	Some disclosure is integrated into the Annual Performance Report.	A regional communication from 27 June 2016 describes an ongoing project concerning the drafting of the first social and gender report of the Region.
Campania	---	The regional Council presented a law proposal from 17 March 2017 on the implementation of gender budgeting.
Emilia-Romagna	Gender-Responsive Report 2015; Gender-Responsive Report 2016. Some disclosure is also integrated into the Annual Performance Report.	---
Friuli-Venezia Giulia	Some disclosure is integrated into the Annual Performance Report.	---
Lazio	Some disclosure is integrated into the Annual Performance Report.	In an informative note on the regional website, the region declares that it will establish a Control room for the experiment of a Gender-Responsive Report starting from

2019.		
Liguria	Some disclosure is integrated into the Annual Performance Report.	---
Lombardy	---	---
Marche	Gender-Responsive Report 2005. Some disclosure is now integrated into the Annual Performance Report.	---
Molise	---	---
Piedmont	Gender-Responsive Report 2006; Gender-Responsive Report 2007/2008; Gender-Responsive Report 2009/2010; Simplified (social) Report for Citizens 2016.	---
Puglia	Proof of a gender-responsive report 2010/2011 is available. Some disclosure is integrated into the Annual Performance Report.	The Resolution no. 1798 of the Regional Executive Council from 7 October 2019 planned the preparation of a social and gender report.
Sardinia	---	---
Sicily	Some disclosure is integrated into the Annual Performance Report.	---
Trentino Alto Adige	---	---
Tuscany	Gender-Responsive Report 2012/2013; Gender-Responsive Report 2010/2014; Social Report 2010; Social Report 2011; Social Report 2010-2014.	---
Umbria	---	---
Valle d'Aosta	Gender-Responsive Report 2004.	---
Veneto	Several annual editions of the social report from 2004 to 2010, some of which include gender performance information.	The Resolution no. 1701 of the Regional Executive Council from 24 October 2017 refers to the adoption of gender budgeting as a planning and auditing tool.

Source: elaboration from the results of an analysis of regional official websites.

4. Discussion and Conclusion

This research was based on the view that regions can play a decisive role in establishing gender budgeting within governmental accounting and accountability systems in virtue of their institutional commitment to the United Nations 2030 Agenda goal concerning gender equality and women's empowerment in local communities. The institutional behavior of Italian regional governments was analyzed in respect to the integration of the gender perspective in the regional budgetary strategy, the local promotion of gender budgeting implementation and performance reporting.

In response to the first research question, the results described in the previous section highlight that although there are differing degrees of commitment to gender equality and the advancement of women, the gender perspective is quite homogeneously integrated into the governmental strategy that informs the budgetary cycle of Italian regional governments. Gender-responsive policies are therefore adopted and they may be traced back to four main themes or areas where regional governments make interventions: the encouragement of women's employment, the promotion of equal gender opportunities, the enhancement of social inclusion, and the combatting of gender-based violence.

In particular, better access to the labor market for women is considered a priority and supported by most of the regional policies that are also concerned with tackling women's unemployment through gender training. It has been confirmed that the latter has received much attention from Italian local policies that aim to increase women's empowerment (Gori et al., 2018). In some regions, social and labor policies also aim to help balance women's family and work roles and hours, or to support their career opportunities through entrepreneurship and self-employment in order to reach a greater economic and social equity for the community. Ensuring equal opportunities for all, with no discrimination at work and in social life, as well as tackling poverty and violence against women, appear to be policies informing the budgetary cycle of almost all Italian regional governments. However, only three regions (Calabria, Emilia-Romagna, and Piedmont) include among their governmental policies the promotion of gender performance reporting to help equal gender opportunities. These regions have also enacted a law to promote gender budgeting implementation. In addition, two of these regions (Emilia-Romagna and Piedmont) are the only regions that have issued regional guidelines to help region local authorities implement gender budgeting. These two regions are also those whose performance reporting systems

include reporting tools (such as gender-responsive reports), which disclose gender performance information that is essential to enable the impact evaluation of the policies to be carried out.

In response to the second research question, the results corroborate the fact that a legislative movement has occurred during the last decade, which has concerned Italian regional governments (Pulejo, 2011a; Tommaso et al., 2019). To date, nine regions have enacted a regional law establishing gender budgeting implementation in their territories. Eight laws promote it, both in the regional government's budgetary process and in that of the region's local authorities. However, the regional laws address gender budgeting with a mostly homogeneous approach and remain limited in scope and objectives (Tommaso et al., 2019).

Furthermore, some laws have also envisaged the enactment of regional guidelines in order to help gender budgeting establishment in the territorial local authorities; however, as already highlighted, only two regions have actually issued such guidelines. This may be due to the change in the elective decision-making bodies which, based on their governmental political orientation, give different levels of salience to gender issues during their electoral mandate. The duration of the elected bodies' mandate therefore can critically affect the regional administration and limit the long-lasting effects of some policies, such as promoting gender budgeting. Nonetheless, gender budgeting implementation cannot be an idea that belongs to one political alignment but needs to be seen as an accounting matter to be established within governmental practice relating to accounting and accountability. Indeed, accounting cannot remain blinkered when considering sustainable development issues such as gender equality and women's empowerment (Hopper, 2019). In addition, providing non-financial information on gender equality commitment is becoming relevant to meet the growing demands from stakeholders for efficiency, equity, transparency and accountability (Miles, 2011; Hossain et al., 2016). This is also in line with public governance principles (Galizzi et al., 2018), according to which the performance disclosure fulfills the governmental need to address value creation for all of society, in all its many dimensions (Bebington & Dillard, 2008; Dumay et al., 2016).

From the Italian regional laws, it has emerged that gender budgeting is mainly conceived as a social reporting tool with which to disclose the gender impact assessment of budgetary policies that have been implemented (Galizzi, 2010; Addabbo et al., 2011; Pulejo, 2011b). These laws, therefore, aim to institutionalize a performance reporting tool promoting government disclosures on gender equality evaluation. Inconsistently, however, most regions that have established gender budgeting implementation through the adoption of a gender-responsive report appear not to have adopted such a tool.

The reporting by Italian regional governments on gender performance information was explored in response to the third research question. The results showed that reporting on gender performance issues is not a common practice, although some gender-related information is integrated into the annual performance reports of several regional governments. More precisely, a small number of Italian regional governments are implementing (or have implemented in the past) – in the final stage of their budgetary process – additional reporting tools that disclose non-financial information on gender issues, such as gender-responsive reports and social reports. Reporting on gender issues, therefore, remains isolated; however, in some regions, gender budgeting implementation is an ongoing project, which should allow for an increase in gender performance reporting in the near future. This increase will also depend on the political governance of the regions. However, the fact that some recent regional government institutional resolutions provide for the forthcoming adoption of gender budgeting suggests that gender performance reporting needs more attention not only politically but also academically; indeed, it needs to be studied more in the context of performance measurement and reporting systems and public sector sustainability reporting.

The empirical glance of the Italian regional government experience this study has provided highlights how there is a need for a greater organizational and cultural commitment to the institutionalization and spread of the gender budgeting idea. Formally promoting gender budgeting through laws is not enough; regions also need to provide concrete examples by integrating gender-related information into their performance reporting systems in order to allow stakeholders to appreciate the government's value outcomes in all their dimensions, including the gender-related social dimension.

Gender performance reporting needs to become part of managerial culture and accounting practice as a generally accepted and recognized way of creating value. This is a challenge that, as the experience of Italian regional governments shows, has just begun. Greater political efforts from the various actors at the local level, as well as at the central level, are therefore required, given the strong global attention given to the United Nations 2030 Agenda concerning gender equality and women's empowerment. On the other hand, gender budgeting entails the integration of the gender perspective into the budgetary process and hence, involves the embedding of the gender

perspective into governmental policies that can be implemented and their results measured and reported. Thus, performance reporting systems cannot be neutral, they must become involved in order to enhance both the government's accountability and strategic control.

Finally, it is recommended that regional governments place a greater focus on gender policies in their strategic plans informing the governmental budgetary cycle; this is the first step in gender budgeting implementation which also implies the adoption of performance measurement and reporting tools that will allow the outcomes of these policies to be assessed and disclosed to stakeholders. In particular, some gender policies need more strategic integration for a real government contribution to achieving the goal of gender equality and women's empowerment. These policies could include: parental leave policies aimed at balancing home and work life; supporting women's access to career opportunities, decision-making and entrepreneurship; tackling inequity in the workplace such as by encouraging full equity in remuneration; improving women's well-being such as by supporting gender-specific care, education and social projects; promoting social inclusion through targeted social measures and services such as by developing social housing; and encouraging territorial networks, partnerships and information campaigns to raise awareness of the gender violence issue. In other words, a greater integration of the gender perspective in governmental policies involves adopting this perspective in all strategic areas of intervention: labor policies, family policies, health policies and welfare and social policies. More gender-responsive regional policies would ultimately help to promote positive behavior. This will contribute to using public resources with increasing equity for citizens, thus strengthening gender equality and the role of women in the family, at work and in society.

References

- Adams, C. (2017). *Understanding integrated reporting: the concise guide to integrated thinking and the future of corporate reporting*. Abingdon, UK: Routledge. <https://doi.org/10.4324/9781351275002>
- Addabbo, T., Badalassi, G., Corrado, F., & Picchio, A. (2011). A social-reproduction and well-being approach to gender budgets: experiments at local government level in Italy. In E. Addis, P. de Villota, F. Degavre, & J. Eriksen (Eds.), *Gender and Well-Being. The Role of Institutions* (pp. 105-124). UK: MPG Books Group.
- Addabbo, T., Gunluk-Senesen, G., & O'Hagan, A. (2015). Gender budgeting: Insights from current methodologies and experiences in Europe. *Politica Economica*, 31(2), 125-134. <https://doi.org/10.1429/80929>
- Bebbington, J., & Dillard, J. (2008). Social sustainability: an organizational-level analysis. In J. Dillard, V. Dujon, & M. C. (Eds.), *King Understanding the social dimension of sustainability* (pp. 173-189). New York: Routledge. <https://doi.org/10.4324/9780203892978>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Broadbent, J. (2016). A gender agenda. *Meditari Accountancy Research*, 24(2), 169-181. <https://doi.org/10.1108/MEDAR-07-2015-0046>
- Brody, A. (2009). *Gender and governance: Overview Report*. Brighton, UK: Institute of Development Studies.
- Budlender, D. (2006). Expectations versus realities in gender-responsive budget initiatives. In S. Razavi, & S. Hassim (Eds.), *Gender and Social Policy in a Global Context: Uncovering the Gendered Structure of 'the Social'* (pp. 322-339). London, UK: Palgrave Macmillan. <https://doi.org/10.1108/MEDAR-07-2015-0046>
- Budlender, D., & Hewitt, G. (2002). *Gender budgets make more cents: country studies and good practice*. London, UK: The Commonwealth Secretariat.
- Chakraborty, L. (2016). *Asia: A survey of gender budgeting efforts*. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781475519914.001>
- Corner, L. (2005). *Gender-sensitive and pro-poor indicators of good governance*. Oslo, Norway: Oslo Governance Centre, UNDP (United Nations Development Programme).
- Daly, J., Kellehear, A., & Gliksman, M. (1997). *The public health researcher: A methodological guide*. Melbourne, Australia: Oxford University Press.
- de Villiers, C., & Maroun, W. (Eds.) (2017). *Sustainability accounting and integrated reporting*. Abingdon, UK: Routledge. <https://doi.org/10.4324/9781315108032>
- Del Gesso, C. (2019). Involving stakeholders in university hospital performance reporting: The state of the art in Italy. *African Journal of Business Management*, 13(11), 353-372. <https://doi.org/10.5897/AJBM2019.8799>

- Downes, R., Von Trapp, L., & Nicol, S. (2017). Gender budgeting in OECD countries. *OECD Journal on Budgeting*, 16(3), 71-107. <https://doi.org/10.1787/budget-16-5jfq80dq1zbn>
- Dumay, J., Bernardi, C., Guthrie, J., & Demartini, P. (2016). Integrated reporting: a structured literature review. *Accounting Forum*, 40(3), 166-185. <https://doi.org/10.1016/j.acfor.2016.06.001>
- European Commission. (2018). *Annual Implementation Report 2017. EU Gender Action Plan II Gender Equality and Women's Empowerment: Transforming the Lives of Girls and Women through EU External Relations 2016-2020*. Retrieved from https://ec.europa.eu/europeaid/sites/devco/files/eu_gap_2017.pdf
- Fernandez-Feijoo, B., Romero, S., & Ruiz-Blanco, S. (2014). Women on boards: do they affect sustainability reporting? *Corporate Social Responsibility and Environmental Management*, 21(6), 351-364. <https://doi.org/10.1002/csr.1329>
- Galizzi, G., & Siboni, B. (2016). Positive action plans in Italian universities: Does gender really matter? *Meditari Accountancy Research*, 24(2), 246-268. <https://doi.org/10.1108/MEDAR-09-2015-0062>
- Galizzi, G. (2010). The Formulation of Gender Sensitive Budgets: Integrating Gender into the Balanced Scorecard. *Economia Aziendale Online*, 3, 335-343.
- Galizzi, G., Bassani, G., & Cattaneo, C. (2018). Adoption of Gender-Responsive Budgeting (GRB) by an Italian Municipality. *Administrative Sciences*, 8(4), 68. <https://doi.org/10.3390/admsci8040068>
- Global Reporting Initiative (GRI). & International Finance Corporation (IFC) (2009). *Embedding Gender in Sustainability Reporting – A Practitioner's Guide*. Retrieved from <https://www.globalreporting.org/resourcelibrary/Embedding-Gender-In-Sustainability-Reporting.pdf>
- Gori, E., Romolini, A., & Fissi, S. (2018). Local Authorities' Policies for Disseminating Gender Equality. Evidence from Italy. *Transylvanian Review of Administrative Sciences*, 14(53), 38-53. <https://doi.org/10.24193/tras.53E.3>
- Grosser, K. (2009). Corporate social responsibility and gender equality: women as stakeholders and the European Union sustainability strategy. *Business Ethics: A European Review*, 18(3), 290-307. <https://doi.org/10.1111/j.1467-8608.2009.01564.x>
- Grosser, K., & Moon, J. (2005). Gender mainstreaming and corporate social responsibility: Reporting workplace issues. *Journal of Business Ethics*, 62(4), 327-340. <https://doi.org/10.1007/s10551-005-5334-3>
- Henriques, A. (2013). CSR, sustainability and the triple bottom line. In A. Henriques, & J. Richardson (Eds.), *The triple bottom line: Does it all add up?* (pp. 26-33). London, UK: Routledge. <https://doi.org/10.4324/9781849773348>
- Hopper, T. (2019). Stop accounting myopia: – Think globally: a polemic. *Journal of Accounting & Organizational Change*, 15(1), 87-99. <https://doi.org/10.1108/JAOC-12-2017-0115>
- Hossain, D. M., Ahmad, N. N. N., & Siraj, S. A. (2016). Marxist feminist perspective of corporate gender disclosures. *Asian Journal of Accounting and Governance*, 7, 11-24. <https://doi.org/10.17576/AJAG-2016-07-02>
- Khelif, H., & Achek, I. (2017). Gender in accounting research: a review. *Managerial Auditing Journal*, 32(6), 627-655. <https://doi.org/10.1108/MAJ-02-2016-1319>
- Klatzer, E., Addabbo, T., Alarcon-García, G., & O'Hagan, A. (2018). Developments in Practice: Methodologies and Approaches to Gender Budgeting. In A. O'Hagan, & E. Klatzer (Eds.), *Gender Budgeting in Europe: Developments and challenges* (pp. 109-133). Cham, Switzerland: Palgrave Macmillan. https://doi.org/10.1007/978-3-319-64891-0_6
- Koehler, G. (2016). Tapping the Sustainable Development Goals for progressive gender equity and equality policy? *Gender & Development*, 24(1), 53-68. <https://doi.org/10.1080/13552074.2016.1142217>
- Leach, M., Mehta, L., & Prabhakaran, P. (2016). *Gender equality and sustainable development: a pathways approach*. Discussion paper for the World Survey on the Role of Women in Development 2014. New York: UN Women. <https://doi.org/10.18356/2c5436ac-en>
- Manes-Rossi, F., Tiron-Tudor, A., Nicolò, G., & Zanellato, G. (2018). Ensuring more sustainable reporting in Europe using non-financial disclosure—De facto and de jure evidence. *Sustainability*, 10(4), 1162. <https://doi.org/10.3390/su10041162>
- Marks Rubin, M., & Bartle, J. R. (2005). Integrating gender into government budgets: A new perspective. *Public*

- Administration Review*, 65(3), 259-272. <https://doi.org/10.1111/j.1540-6210.2005.00452.x>
- Miles, K. (2011). Embedding gender in sustainability reports. *Sustainability Accounting, Management and Policy Journal*, 2(1), 139-146. <https://doi.org/10.1108/20408021111162164>
- Morgan, A. D. (2009). Learning communities, cities and regions for sustainable development and global citizenship. *Local Environment*, 14(5), 443-459. <https://doi.org/10.1080/13549830902903773>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1-13. <https://doi.org/10.1177/1609406917733847>
- O'Hagan, A. (2018). Conceptual and Institutional Origins of Gender Budgeting. In A. O'Hagan, & E. Klatzer (Eds.), *Gender Budgeting in Europe: Developments and challenges* (pp. 19-42). Cham, Switzerland: Palgrave Macmillan. https://doi.org/10.1007/978-3-319-64891-0_2
- O'Hagan, A., & Klatzer, E. (Eds.). (2018). *Gender budgeting in Europe: Developments and challenges*. Cham, Switzerland: Palgrave Macmillan. <https://doi.org/10.1007/978-3-319-64891-0>
- Pollifroni, M. (2005). Il bilancio di genere (gender sensitive budgeting) quale strumento di accountability proprio del modello della Public Sector Social Responsibility: un'analisi comparata tra prassi internazionale e nazionale", in AA.VV., *Riferimenti storici e processi evolutivi dell'informativa di bilancio tra dottrina e prassi. Atti del VII Convegno Nazionale della Società Italiana di Storia della Ragioneria, Atri-Silvi (TE), 22-23 settembre 2005*, (pp. 337-371). Roma, Italy: Rirea.
- Pollifroni, M. (2008). Stakeholder Engagement Policies: searching for the positive performances by a Theoretical Model applied to the Italian Public Sector. *Economia Aziendale Online*, 1(2-3), 73-90.
- Pulejo, L. (2011a). *La gender equality nell'economia dell'azienda. Strategie e strumenti di mainstreaming di genere per lo sviluppo sostenibile*. Milano, Italy: FrancoAngeli.
- Pulejo, L. (2011b). Il profilo del genere nella programmazione delle aziende pubbliche territoriali. *Management Control*, 2, 59-83.
- Quinn, S. (2016). *Europe: A survey of gender budgeting efforts*. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781475520088.001>
- Quinn, S. (2017). Gender budgeting in Europe: What can we learn from best practice? *Administration*, 65(3), 101-121. <https://doi.org/10.1515/admin-2017-0026>
- Razavi, S. (2016). The 2030 Agenda: challenges of implementation to attain gender equality and women's rights. *Gender & Development*, 24(1), 25-41. <https://doi.org/10.1080/13552074.2016.1142229>
- Rubin, M. M., & Bartle, J. R. (2005). Integrating gender into government budgets: A new perspective. *Public Administration Review*, 65(3), 259-272. <https://doi.org/10.1111/j.1540-6210.2005.00452.x>
- Sharp, R., & Broomhill, R. (2002). Budgeting for equality: The Australian experience. *Feminist economics*, 8(1), 25-47. <https://doi.org/10.1080/1354500110110029>
- Siboni, B., Sangiorgi, D., Farneti, F., & De Villiers, C. (2016). Gender (in) accounting: Insights, gaps and an agenda for future research. *Meditari Accountancy Research*, 24(2), 158-168. <https://doi.org/10.1108/MEDAR-04-2016-0054>
- Sodani, P. R., & Sharma, S. (2008). Gender responsive budgeting. *Journal of Health Management*, 10(2), 227-240. <https://doi.org/10.1177/097206340801000205>
- Steccolini, I. (2019). New development: Gender (responsive) budgeting—a reflection on critical issues and future challenges. *Public Money & Management*, 39(5), 379-383. <https://doi.org/10.1080/09540962.2019.1578538>
- Stotsky, J. G. (2006). *Gender Budgeting*. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781451864922.001>
- Stotsky, J. G., Kolovich, M. L., & Kebhaj, S. (2016). *Sub-Saharan Africa: A Survey of gender budgeting efforts*. Washington, DC: International Monetary Fund. <https://doi.org/10.5089/9781475520033.001>
- Tommaso, S., Pastore, P., & Andriolo, M. (2019). Strategic Governance and Gender Budgeting of Local Governments: Paths and Experiences in Italy. In *International Conference on Gender Research* (pp. 613-621). Academic Conferences International Limited.

- UN Women. (2019). *Generation Equality. Realizing women's rights for an equal future*. Retrieved from <https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2019/generation-equality-realizing-womens-rights-for-an-equal-future-en.pdf?la=en&vs=4330>
- United Nations (UN). (2014). *Gender Equality in Public Administration*. New York: United Nations Development Programme, 2014. Retrieved from https://www.undp.org/content/undp/en/home/librarypage/democratic-governance/public_administration/gepa.html
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15(3), 398-405. <https://doi.org/10.1111/nhs.12048>
- Velte, P. (2017). Do women on board of directors have an impact on corporate governance quality and firm performance? A literature review. *International Journal of Sustainable Strategic Management*, 5(4), 302-346. <https://doi.org/10.1504/IJSSM.2017.089125>
- Villagomez, E. (2004). *Gender Responsive Budgets: issues, good practices and policy options*. Geneva: UN, Economic Commission for Europe. London, England: Routledge.

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 find the application form and details at <http://www.ccsenet.org/journal/index.php/ibr/editor/recruitment> and e-mail the completed application form to ibr@ccsenet.org.

Reviewers for Volume 12, Number 12

Andrei Buiga, "ARTIFEX University of Bucharest, Romania

Ashford C Chea, Benedict College, USA

Benjamin James Inyang, University of Calabar, Nigeria

Cheng Jing, eBay, Inc. / University of Rochester, USA

Chokri Kooli, International Center for Basic Research applied, Paris, Canada

Federico de Andreis, "UNIVERSITY "GIUSTINO FORTUNATO" Benevento", Italy

Florin Ionita, The Bucharest Academy of Economic Studies, Romania

Giuseppe Granata, University of Cassino and Southern Lazio, Italy

Graziella Sicoli, University of Calabria, Italy

Hejun Zhuang, Brandon University, Canada

Henrique Fátima Boyol Ngan, Institute for Tourism Studies, Macao, Macao

Hillary Odor, University of Benin, Nigeria

Hsiao-Ching Kuo, Washington and Jefferson College, USA

Ionela- Corina Chersan, "Alexandru Ioan Cuza" University from Iași, Romania

Ivana Tomic, IT Company CloudTech, Republic of Serbia

Leow Hon Wei, SEGi University, Malaysia

M- Muzamil Naqshbandi, University of Dubai, UAE

Marcelino José Jorge, Evandro Chagas Clinical Research Institute of Oswaldo Cruz Foundation, Brazil

Maryam Ebrahimi, Azad University, Iran

Mohsen Malekalketab Khiabani, University Technology Malaysia, Malaysia

Muath Eleswed, American University of Kuwait, USA

Nirosh Kuruppu, Sultan Qaboos University, Oman

Oluyomi Abayomi Osobajo, Coventry University, UK

Ouedraogo Sayouba, University Ouaga 2, Burkina Faso

Ozgur Demirtas, Turkish Air Force Academy, Turkey

Sara Saggese, University of Naples Federico II, Italy

Tatiana Marceda Bach, Centro Universitário Univel (UNIVEL), Brazil

Vassili JOANNIDES de LAUTOUR, Grenoble École de Management (France) and Queensland University of Technology School of Accountancy (Australia), France

Wanmo Koo, Western Illinois University, USA

Yan Lu, University of Central Florida, USA

Yasmin Tahira, Al Ain University of Science and Technology, Al Ain, UAE

➤ 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 two to four 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 publication fee. If the submission is accepted, the authors revise paper and pay the publication fee.
- 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://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

9140 Leslie St. Suite 110
Beaver Creek, Ontario, L4B 0A9
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:

COPAC
CrossRef
EBSCOhost
EconBiz
ECONIS
EconPapers
Elektronische Zeitschriftenbibliothek (EZB)
Excellence in Research for Australia (ERA)
Genamics JournalSeek
Google Scholar
Harvard Library
IBZ Online
IDEAS
Infotrieve
LOCKSS
Open J-Gate
PKP Open Archives Harvester
Publons
RePEc
ResearchGate
ROAD
SHERPA/RoMEO
SocioRePEc
UC Riverside Library
Ulrich's
Universal Digital Library
ZBW-German National Library of Economics

International Business Research Monthly

Publisher Canadian Center of Science and Education
Address 9140 Leslie St. Suite 110, Beaver Creek, Ontario, L4B 0A9, Canada
Telephone 1-416-642-2606
Fax 1-416-642-2608
E-mail ibr@ccsenet.org
Website <http://ibr.ccsenet.org>

