

STRATEGIC INNOVATION AS DRIVER FOR SME PERFORMANCE IN YEMEN

Nagwan AlQershi¹

Zakaria Bin Abas²

Sany Sanuri Mohd Mokhtar³

^{1,3} *School of Business Management, College of Business, Universiti Utara Malaysia*

² *School of Accounting, College of Business, Universiti Utara Malaysia*

¹ *nagwanalqershi@yahoo.com*

ABSTRACT

Success lies at the heart of every organization's ability to innovate, innovation is one of the most important strategies of competition, both for large and small firms, it is widely held in the literature and among practitioners that small and medium enterprises (SME) are instrumental in the economic development of countries worldwide. However, the contribution of SMEs can only be possible through performance. This study is a conceptual discussion of manufacturing SME performance in Yemen and the effect of strategic innovation. The performance is considered to be very low, and the country is ranked by the Global Innovation Index as one the lowest in terms of innovation. The study discusses strategic innovation and presents a framework for understanding the concept in 10 different ways. It concludes by recommending some policies through which the government of Yemen can assist manufacturing SMEs. Specifically, the study recommends that the government should provide training subsidies to manufacturing SMEs because innovation can only take place when human resources are adequately trained.

Keywords: Strategic Innovation, SMEs, Performance

INTRODUCTION

Small and Medium Enterprises (SMEs) have a high priority in the economic development of numerous developing nations worldwide (Isaga, Masurel & Van Montfort, 2015; Abor & Quartey, 2010; Kapurubandara & Lawson, 2006; OECD, 2017; Mokhtar, Yusoff & Ahmad, 2014). For many of these nations, development of the SME sub-sector is part of their general economic agenda (Boachie-Mensah & Acquah, 2015; Khalique, Bontis, Abdul Nassir bin Shaari, & Hassan. Isa, 2015). SMEs make an important contribution to their socio-economic development and that of countries transiting from centrally planned to capitalist economies (Duval, & Utoktham, 2014). Moreover, a vibrant SME sector is regarded as vital for sustainable economic development at local and international levels (Harvie, & Charoenrat, 2015). The role of SMEs has increased tremendously over the past twenty years, including lowering the rate of unemployment and leading to innovation and diversification.

It is important to note that the term SME has no generally accepted definition. Definitions differ from one country to another as well as from one international organization to another. However, there is a general consensus that SMEs, according to their name, tend to be smaller in terms of the number of employees, size, and the extent of operations (OECD, 2017). According to the Organization for Economic Co-operation and Development (OECD, 2017), there is no general definition because different countries tend to define 'small' or 'medium' according to the size of their economy.

For example, a small enterprise in the USA could be a medium-sized enterprise in Yemen. Conversely, a medium enterprise in Yemen could be a small enterprise in the USA.

The OECD (2017) has given a definition of SMEs according to the number of employees, i.e. micro (1-9 employees), small (10-49) and medium (50-249). Other definitions of SMEs are based on the annual turnover. For instance, the EU defines SMEs as businesses having fewer than 200 employees and with a yearly turnover that does not exceed €43 million (European Union, 2003). Hence, these definitions of SMEs consider the number of employees and yearly turnover. In the Yemeni context, enterprises with 1-4 employees are small businesses, medium enterprises have from 5-9 workers, and large firms have 10 or more employees (YMIT, 2014; Ministry of Planning and International Cooperation, Yemen [MOPIC], 2004).

Although the definitions of SMEs are different, the common theme among them is that they are small compared to large-scale and international corporations. In addition, according to the EU (2003), a distinguishing feature of SMEs is that they are mostly run by their owners, although there are some examples where owners employ the services of skilled managers to manage the enterprises. Among Arab countries, Yemen has one of the largest populations in the area, estimated at 26.8 million people by the World Bank (2017). This large population makes it a major country in the area. Due to its large population, there is a need to focus on SMEs in Yemen because these businesses are widely regarded as important contributors to employment creation and economic growth (OECD, 2017, World Bank, 2015; Nasr & Rostom, 2013). However, the focus of this study is on the performance of manufacturing SMEs in Yemen.

According to the Yemeni Ministry of Industry and Trade (2016), the main challenges faced by Yemeni SMEs include lack of strong institutional capacity in some partners, the instability of the currency exchange rate, insecurity, lack of training and consultation, wrong perceptions about lending to poor people, debt collection, shortage of qualified personnel, inflation, lack of working capital, inadequate management in small and medium institutions, lack of basic infrastructure and other services, insufficient supervision and auditing, insufficient entrepreneurial skills, marketing limitations, high interest rates and the collateral demanded and the attitude of youth to work in SMEs.

Additionally, this study focuses on the performance of manufacturing SMEs. Although SMEs are generally important contributors to economic development, the manufacturing sector is regarded as a pillar of growth in modern economies (OECD, 2017; Haraguchi & Cheng, & Smeets, 2016, Edinburgh Group, 2013). Yemen has a very high number of SMEs operating in the manufacturing sector; however, their contribution to GDP is very low (World Bank, 2015). With the current fall in the price of oil, there is a need for countries like Yemen to put more emphasis on the productivity (performance) of their manufacturing sector. A vibrant manufacturing sector will be able to create employment for the large number of unemployed youth; currently put at 60 percent in Yemen (Alshebami and Khandaree, 2014). Thus, the focus of this study is on the performance of manufacturing SMEs in Yemen.

This study is necessary because it addresses the practical problem arising from the fact that manufacturing SMEs in Yemen have performed relatively poorly. Because of their below par performance, they have contributed little to the country's GDP and employment creation (Yemeni Ministry of Industry and Trade, 2016; World Bank, 2015; Nasr & Rostom, 2013). For example, Alshebami and Khandaree (2014) asserted that unemployment in Yemen increased from 14 percent in 2011 to about 60 percent in 2014. This figure could be reduced if manufacturing SMEs increased their performance, enabling them to provide employment to the large population of unemployed youth.

As stated by the Yemeni Ministry of Industry and Trade (2017), there are about 5,853 manufacturing SMEs in Yemen. This is an indication that the entire Yemeni manufacturing economy is dominated by SMEs; hence it is crucial to investigate the rather poor performance of the sector.

This study conceptually investigates SME performance in the Yemeni context and provides fresh insight from the context of a developing country. According to Herath and Mahmood, (2013), and Keskin, Senturk, Sungur, Kiris, (2010), developing countries have peculiar economic problems, which also affect the performance of the SMEs in these countries. Specifically, the study discusses the effect of strategic innovation on the performance of manufacturing SMEs in Yemen.

It must be noted that only a few studies have focused on SME performance in Yemen. Some of these studies include Abdulmalek and Osman (2016); Alhammadi and Shahadan (2014); Fararah and Al-Swidi (2013); and Jabeen, Alekam, Aldaoud, Nikmat, Zureigat, Nahi, Fadelal Junaidi, and Hassan (2013). Although these papers have provided good knowledge of SMEs and their performance in Yemen, only one study, to the best of the researchers' knowledge, has focused on SME performance in the manufacturing sector (Abdulmalek & Osman, 2016). This is an indication of the wide gap in the literature concerning the performance of manufacturing SMEs in Yemen. Additionally, Abdulmalek and Osman focused only on the effect of strategic planning on the performance of manufacturing SMEs. Although they provided a useful insight, it is clear that it is not sufficient to address the problem of the performance of manufacturing SMEs in a complex developing economy, like Yemen.

As noted earlier, studies on SME performance in Yemen are very few, and even these studies have largely ignored the strategic role of innovation in the performance of manufacturing SMEs. This is a crucial theoretical gap that is conceptually addressed in the present study. Additionally, another gap which needs to be filled. This might be due to the fact that most studies have not examined these types of strategic innovation and performance, and how it strength the relationship between strategic innovation and performance in the SMEs manufacturing industry of Yemen. The current study attempts to address this evident knowledge gap.

LITERATURE REVIEW

Strategic Innovation and SME Performance

Strategic Innovation

Strategic innovation is crucial to creating competitive advantage (Baden & Pitt, 1996); Markides (1997) defined it as a situation in which a firm succeeds in attacking an established industry leader thus creating a competitive advantage. Strategic innovation refers to the process undertaken by firms which totally changes the nature of competition within an industry as well as the gaining of a competitive advantage by employing strategies different from their competitors (Afuah, 2009). Innovation does not just refer to activities in the Research and Development department performed for the creation of next-generation products and services; it also challenges the conventional wisdom in particular areas (Belderbos, Carree, Lokshin, & Sastre, 2015).

The recommendation that companies must embrace innovative strategies does not take into account whether a firm has the capacity to improve its activities in pursuit of more complex and advantageous strategies. Hence, even small and medium manufacturing industries must respond by adopting more innovation to establish or sustain competitive advantage in the marketplace (Brunswick & Vanhaverbek, 2014; Drucker, 2014). Strategic innovation directly affects the ability of companies to develop their products to fulfil the wide range of customer and market needs.

SME Performance

Due to the importance and strategic nature of performance, it has received a lot of emphasis in the literature. SME performance has been widely investigated (Hudson, Smart & Bourne, 2001) and it has been noted that operators of SMEs have not given serious attention to performance, perhaps due to the informal manner in which they run their businesses. Although numerous studies have been conducted on performance generally (Mandhachitara & Allapach, 2017; Aminu & Shariff, 2015; Hudson, Smart, & Bourne, 2001), very few studies on SME performance are available (Ates, Garengo, Cocca, & Bititci, 2013). This observation by Oura, Zilber and Lopes (2016); Boachie-Mensah, & Acquah (2015); Mokhtar, Yusoff, & Ahmad (2014); Nasr & Rostom (2013); Taticchi, Tonelli, & Cagnazzo (2010); and Ates et al. (2013), points to a theoretical gap in terms of SME performance research. Moreover, developing countries usually lag behind the advanced countries; hence, there is a need to investigate the peculiar nature of SMEs and their performance in the context of developing countries.

The Relationship between Strategic Innovation and SME Performance

Strategic innovation is the discovery of a fundamentally different competitive strategy or business model in a given industry (Poulios, 2014). It refers to the entire process through which firms redesign their business processes and products to enable them to offer superior products and services to their stakeholders (Derrick & Soren, 2007). In addition, firms are often dependent on the effective utilization of their assets to improve their profitability and on the application of innovative practices to reinforce their values, when imitated by their rivals. In this context, the effects of strategic innovation on performance can be studied through the evaluation of customer satisfaction in light of product/service quality, delivery time and installation assistance (Mashahadi, Ahmad, & Mohamad, 2016).

Lilly and Juma (2014) investigated the influence of strategic innovation on firm performance among commercial banks in Kenya. They discovered a significant positive association between strategic innovation and performance among the study population. Similarly, Kalay and Lynn (2015) studied the influence of strategic innovation on performance among manufacturing companies in Turkey and found a positive relationship.

The major theoretical gaps in the existing literature are due to the limited number of studies that have investigated and established the relationships between strategic innovation and organizational performance (Muhammad, 2014). According to Muhammad (2014), past studies have mostly focused on innovative capability, product innovation, process innovation, and marketing innovation, and their influence on performance. Very few studies are available concerning the relationship between strategic innovation and performance. Another gap which needs to be filled, that previous studies have not examined these types of strategic innovation and performance.

Strategic innovation is a complex phenomenon, and there are numerous ways in which it can lead to improved performance. The current paper adapts the strategic innovation measure from Yang (2014), which comprises 10 different types, as shown in Figure 1.

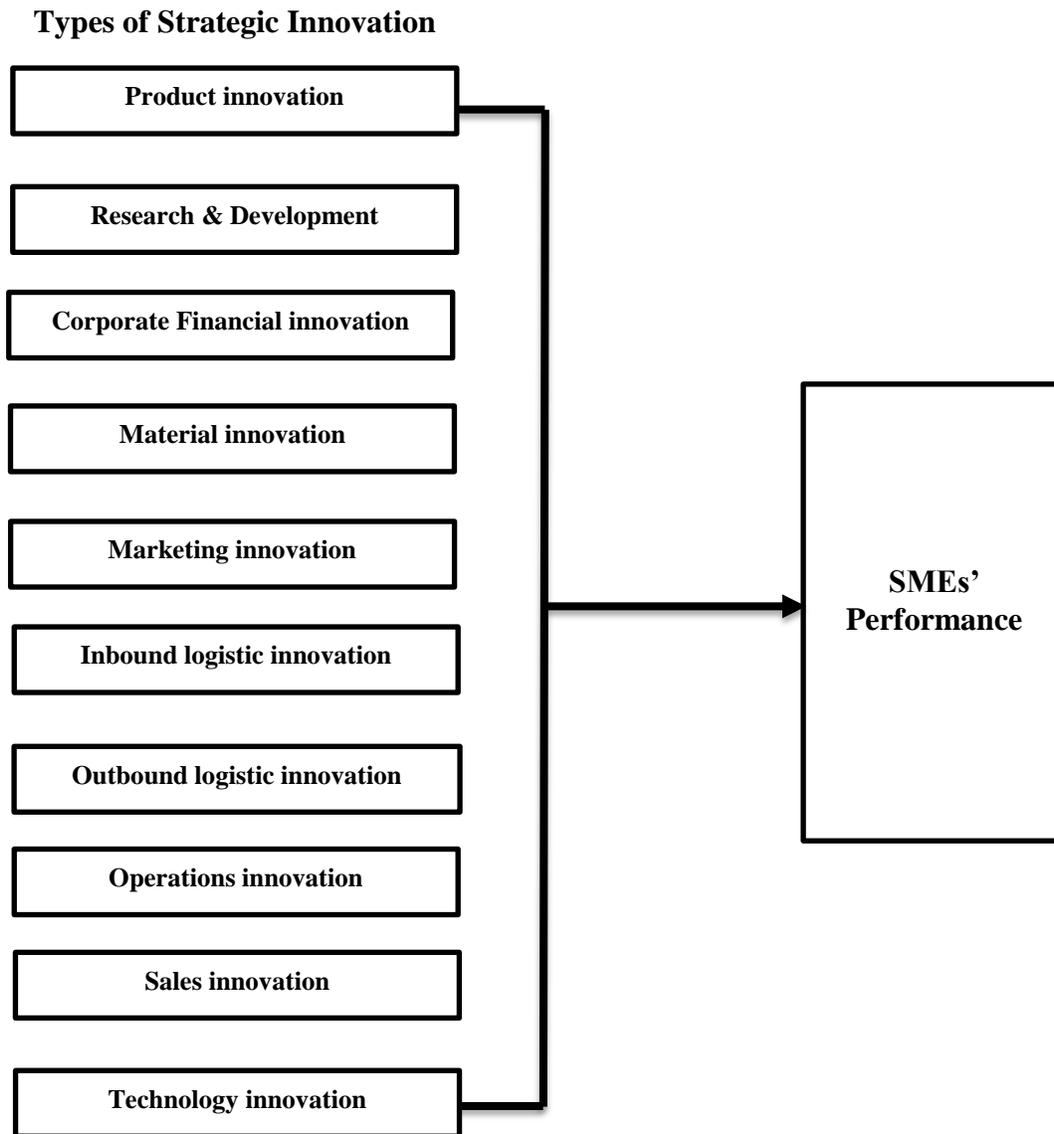


Figure 1

Types of strategic innovations that influence performance

PECULIARITIES OF MANUFACTURING SMES IN YEMEN

Firms depend on innovative ideas to survive and compete in the fast-changing, aggressive and competitive markets of the 21st century (Menegotto, Pereira & Fernandes, 2017; Shabbir, 2015; Brorstrom, 2015). Many sectors in developing countries depend on innovation to survive and compete (Zoo, de Vries & Lee, 2017; Iizuka & Gebreeyesus, 2017; Szapir, Vargas, Brito & Cassiolato, 2016). However, the manufacturing industry in Yemen still lacks innovative activities when compared to other countries (Yemeni Ministry of Industry and Trade, 2016).

The World Bank (2015) and the Global Innovation Index (2016) have also stated that manufacturing firms in Yemen are lagging behind in terms of innovation. These are not the only international agencies that have linked Yemen's economic problem to low levels of innovation and performance of manufacturing SMEs. Earlier, the United States Agency for International Development, USAID, (2009) drew attention to this problem. It stated that manufacturing constitutes only 9.9 percent of Yemen's GDP and only four percent of the workforce. When the data for Yemen are compared with the data for Malaysia, there is a clear indication that manufacturing SMEs in Yemen are performing poorly. For instance, manufacturing SMEs in Malaysia contribute 21.7 percent to the GDP (Malaysian Department of Statistics, 2015) compared to the Yemeni figure of 9.9 percent. Additionally, unlike Yemen, which has been witnessing a decline in the growth of manufacturing SMEs, Malaysian manufacturing SMEs registered a growth of 6.6 percent in 2015. Therefore, it can be concluded that there are challenges in terms of performance of the SME manufacturing sector in Yemen. As noted by the World Bank (2015), this is the cause of some practical economic problems in Yemen, such as low employment and low economic growth.

With such a large number of SME manufacturing firms, 5,853 (Yemeni Ministry of Industry and Trade, 2017), it is surprising that Yemeni manufacturing SMEs do not contribute much to the country's GDP. The World Bank (2015) has critically appraised the performance of the Yemeni economy in recent years and has concluded that it is very poor. It particularly noted that the performance of the manufacturing sector has been very weak, which it attributed to the low level of innovation. The World Bank report also showed a reduction in the contribution to the GDP by the manufacturing sector in Yemen from 19 percent between 1990 and 1994 to 15 percent between 2005 and 2010. This decline is evidence of problems in this sector that need to be investigated. The World Bank (2015, p.15) is very clear on the problem, stating: "The small size and lackluster performance of private manufacturing are at the heart of the weak growth performance of the country." Again, this direct quote from the World Bank is an indication that the poor economic performance in Yemen is caused by manufacturing SMEs.

Furthermore, many manufacturers in Yemen are facing a number of typical problems with regards to their innovation processes. In other words, they suffer from the lack of innovation and the implementation of new ideas in their attempt to create value products. Therefore, they need to address customers' expectations of new standards to ensure their satisfaction (Global Innovation Index, 2016; USAID, 2009). Innovation is something that all companies should focus on, regardless of their size and industry. However, Yemeni firms are faced with a lack of advanced technology; in fact, Yemen was ranked 137 in terms of global ranking in innovation capability (Global Innovation Index Rankings, 2015) and 128 in the Global Innovation Index Rankings in 2016.

Moreover, the current era of rapid globalization bears witness to goods and services moving easily across national boundaries (World Bank, 2017). The impact of globalization on Yemeni SMEs (especially manufacturing SMEs) is that they need to step up innovation to enable them to catch up with the rest of the world. If they are not innovative, then manufacturing SMEs in Yemen will be backward and post poor performance as evinced currently. The fact that innovation may be a major problem for SMEs in Yemen is also supported by USAID (2009). The organization has stated that manufacturing SMEs in Yemen operate at the lower end and are restricted to food and beverage products rather than advanced forms of manufacturing. This shows that innovation may be the key problem affecting the performance of manufacturing SMEs in Yemen.

In the Yemeni context, the performance of manufacturing firms is very low (World Bank, 2015; Sky News, 2012; Aljazeera, 2012; Abdulmalek & Osman, 2016). One of the reasons for this low performance could be the very low level of innovation in the country.

As stated earlier, according to the Global Innovation Index (2015), Yemen is ranked 137 globally. This indicates very low innovation activities in Yemen, which may be a factor affecting the performance of the manufacturing SMEs.

CONCLUSION AND POLICY RECOMMENDATIONS

The study undertakes a conceptual analysis of strategic innovation and its impact on the performance of manufacturing SMEs in Yemen. As stated in the study, manufacturing SMEs in Yemen are not performing satisfactorily, and their contribution to the economy is very low (World Bank, 2015). Although, as found in the literature, many factors could influence firm performance, this study argues that the lack of strategic innovation could be the main problem affecting Yemeni SMEs. This argument is supported by the findings of the World Bank and the very poor ranking of Yemen in the Global Innovation Index. The study also explains strategic innovation in relation to performance. It presents a framework indicating different types of strategic innovation in line with Yang (2014).

The policy implication of the study is in terms of how to improve innovation among Yemeni SMEs. Although this study presents 10 different ways through which manufacturing SMEs can engage in innovation, it may not be possible for them especially in a developing country like Yemen, to adopt all the recommended types of innovation. However, product innovation and marketing innovation are very important in a developing country like Yemen. Additionally, there is a need for financial innovation because access to finance has been found to be a major problem of SMEs in developing countries (Yang, 2014). The policy recommendation from this study is the need for the government to assist manufacturing SMEs in terms of training. This argument is based on the fact that innovation can only take place through well-trained human resources. Currently, there is a lack of adequately trained manpower in Yemen, and this could be the major problem affecting innovation. However, manufacturing SMEs in Yemen, like their counterparts in other developing countries, do not have adequate resources to pay for training. The government could assist in terms of subsidizing the training for SMEs.

Additionally, strategic innovation and its effect on performance similarly suffers from some ambiguity. Little attention has been devoted to examining this relationship in countries with unique cultural practices, such as those of the Middle East, so this has become an interesting topic for further investigation. Also, the concept of strategic innovation has gained importance as a critical determinant of firm performance, although its effect on the relationship between strategic innovation type's practices and performance is still unclear. A thorough review of the literature revealed that this relationship may be very much affected by innovation in culture-driven countries like Yemen. Therefore, this study contributes to the body of knowledge by examining the effects of these types of strategic innovation and SME performance.

REFERENCE

- Abdulmalek Yahya Ali Nusair, & Mohd Hassan Mohd Osman. (2016); An Empirical Study of the Effect of Strategic Planning on Yemeni SME Performance. *Int. J. of Adv. Res.* 4 (8). 455-463.
- Abor, J., & Quartey, P. (2010). Issues in SME development in Ghana and South Africa. *International research journal of finance and economics*, 39(6), 215-228.
- Afuah, A. (2009). *Strategic innovation: new game strategies for competitive advantage*. Rutledge.
- Aljazeera (2012). Retrieved from [http://www.aljazeera.net\(2012\)/programs/economy and people/2012](http://www.aljazeera.net(2012)/programs/economy%20and%20people/2012).

- Alhammadi, A., & Shahadan, F. (2014). The determinants of growth performance of small services enterprises in Yemen. *Journal Economic Malaysia*, 48(1), 35-48.
- Alshebami, A.S. & Khandare, D.M. (2014). Microfinance in Yemen: Challenges and opportunities. *International journal in Management and Social Sciences*, 2(12), 400 – 454.
- Aminu, I. M., & Shariff, M. N. M. (2015). Determinants of smes performance in Nigeria: A pilot study. *Mediterranean Journal of Social Sciences*, 6(1), 156.
- Ates, A., Garengo, P., Cocca, P., & Bititci, U. (2013). The development of SME managerial practice for effective performance management. *Journal of Small Business and Enterprise Development*, 20(1), 28-54.
- Baden-Fuller, C., & Pitt, M. (1996). *Strategic innovation: an international casebook on strategic management*. Routledge.
- Belderbos, R., Carree, M., Lokshin, B., & Sastre, J. F. (2015). Inter-temporal patterns of R&D collaboration and innovative performance. *The Journal of Technology Transfer*, 40(1), 123-137.
- Boachie-Mensah, F., & Acquah, I. S. (2015). The effect of innovation types on the performance of small and medium-sized enterprises in the Sekondi-Takoradi Metropolis. *Archives of Business Research*, 3(3).
- Brorstrom, S. (2015). Implementing innovative ideas in a city: good solutions on paper but not in practice?. *International Journal of Public Sector Management*, 28(3), 166-180.
- Brunswicker, S., & Vanhaverbeke, W. (2015). Open innovation in small and medium-sized enterprises (SMEs): External knowledge sourcing strategies and internal organizational facilitators. *Journal of Small Business Management*, 53(4), 1241-1263 *Business venturing*, 8(3), 241 -253.
- Derrick, P., & Soren, K. (2007). A Framework for Strategic Innovation. *Innovation Point LLC*.
- Drucker, P. (2014). *Innovation and entrepreneurship*. Rutledge.
- Duval, Y., & Utoktham, C. (2014). *Enabling participation of SMEs in international trade and production networks: Trade facilitation, trade finance and communication technology* (No. 146). ARTNeT Working Paper Series.
- Edinburgh Group (2013). Growing the global economy through SMEs, available at:http://www.edinburghgroup.org/media/2776/edinburgh_group_research_growing_the_global_economy_through_smes.pdf, accessed 30.12.2013. Elo.
- European Union (2003). Commission recommendation concerning the definition of micro, small and medium enterprises. *Official Journal of the European Union*, L124/36.
- Fararah, F.S. & Alswidi, A.K. (2013). The role of perceived benefits on the relationship between service quality and customer satisfaction: a study on the Islamic microfinance and SMEs in Yemen using PLS approach. *Asia Social Science*, 9(10), 18 – 37.
- Global innovation index (2015). *Stronger Innovation Linkages for Global*.

- Global innovation index (2016). *Stronger Innovation Linkages for Global*.
- Haraguchi, N., Cheng, C. F. C., & Smeets, E. (2017). The importance of manufacturing in economic development: Has this changed?. *World Development*, 93, 293-315.
- Harvie, C., & Charoenrat, T. (2015). SMEs and the rise of global value chains. *Integrating SMEs into Global Value Chains*, 1.
- Herath, H. M. A., & Mahmood, R. (2013). Strategic orientation based research model of SME performance for developing countries. *Review of Integrative Business and Economics Research*, 2(1), 430.
- Hudson, M., Smart, A., & Bourne, M. (2001). Theory and practice in SME performance measurement systems. *International journal of operations & production management*, 21(8), 1096-1115.
- Iizuka, M., & Gebreyesus, M. (2017). Using Functions of Innovation Systems to Understand the Successful Emergence of Non-traditional Agricultural Export Industries in Developing Countries: Cases from Ethiopia and Chile. *The European Journal of Development Research*, 29(2), 384-403.
- Isaga, N., Masurel, E., & Van Montfort, K. (2015). Owner-manager motives and the growth of SMEs in developing countries: Evidence from the furniture industry in Tanzania. *Journal of Entrepreneurship in Emerging Economies*, 7(3), 190-211.
- Jabeen, R., Alekam, J. M. E., Aldaoud, K. A. M., Mat, N. K. N., Zureigat, B. N. I., Nahi, A. K., & al Junaidi, A. M. F. (2013). Antecedents of Firm's Performance. Empirical Evidence from Yemeni Sme's. *American Journal of Economics*, 3(1), 18-22.
- Kalay, F., & Lynn, G. (2015). The Impact of Strategic Innovation Management Practices on Firm Innovation Performance. *Research Journal of Business and Management*, 2(3), 412-429.
- Kapurubandara, M., & Lawson, R. (2006). Barriers to Adopting ICT and e-commerce with SMEs in developing countries: an exploratory study in Sri Lanka. *University of Western Sydney, Australia*, 82, 2005-2016.
- Keskin, H.; Senturk, C.; Sungur, O. Kiris, H. (2010). *The importance of SMEs in developing countries*. 2nd International Symposium on sustainable development, June 8 – 9, Sarajevo.
- Khalique, M., Bontis, N., Abdul Nassir bin Shaari, J., & Hassan Md. Isa, A. (2015). Intellectual capital in small and medium enterprises in Pakistan. *Journal of Intellectual Capital*, 16(1), 224-238.
- Lilly, L., & Juma, D. (2014). Influence of Strategic Innovation on Performance of Commercial Banks in Kenya: The Case of Kenya Commercial Bank in Nairobi County. *European Journal of Business Management*, 2(1), 336-341.
- Malaysian Department of Statistics (2015). *Small and Medium enterprises 2015*. Press Release.
- Mandhachitara, R., & Allapach, S. (2017). Small business performance in Thailand: key success factors. *Journal of Research in Marketing and Entrepreneurship*, 19(2), 161-181.
- Markides, C. (1997). Strategic innovation. *Sloan management review*, 38(3).

- Mashahadi, F., Ahmad, N. H., & Mohamad, O. (2016). Strategic innovation ambidexterity and the internationalization performance of small and medium enterprises: An insight into herbal-based small and medium enterprises (HbSMEs). *World Journal of Entrepreneurship, Management and Sustainable Development*, 12(2), 161-175.
- Menegotto, M., Pereira, E., & Fernandes, A. (2017, September). Social Innovation in the Brazilian Wine Chain: Co-Creation of Innovative Ideas in Processes, Products and Services in a Multidisciplinary Environment. In *12th European Conference on Innovation and Entrepreneurship ECIE 2017*(p. 449).
- Ministry of Planning and International Cooperation (MOPIC). (2004). *Policies and programs of development for small and medium enterprises in the Republic of Yemen*.
- Ministry of Yemen (2016). *Ministry of Industry and Trade*. Retrieved from <http://www.moit.gov.ye/moit/frontpage>.
- Ministry of Yemen (2017). *Ministry of Industry and Trade*. Retrieved from <http://www.moit.gov.ye/moit/frontpage>.
- Mokhtar, S. S. M., Yusoff, R. Z., & Ahmad, A. (2014). Key elements of market orientation on Malaysian SMEs performance. *International Journal of Business and Society*, 15(1), 49.
- Muhammad Arafat, N. (2014). *The relationship between intellectual capital, innovation capability with firm age and firm performance*. (Doctoral dissertation, Universiti Utara Malaysia).
- Nasr, S., & Rostom, A. (2013). SME contributions to employment, job creation, and growth in the Arab world.
- OECD (2017). *Enhancing the contributions of SMEs in a global and digitalized economy*. Paris: Meeting of the OECD council at ministerial level, 7 – 8 June, 2017.
- OECD (2017), *Small, Medium, Strong. Trends in SME Performance and Business*
 OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264275683-en>.
- Oura, M. M., Zilber, S. N., & Lopes, E. L. (2016). Innovation capacity, international experience and export performance of SMEs in Brazil. *International Business Review*, 25(4), 921-932.
- Poulios, I. (2014). Discussing strategy in heritage conservation: living heritage approach as an example of strategic innovation. *Journal of Cultural Heritage Management and Sustainable Development*, 4(1), 16-34.
- Shabbir, M. S. (2015). Innovation and competitiveness lead to industrial trade.
- Sky News (2012). Retrieved from https://www.youtube.com/watch?v=mK_q38scRxI/2012.
- Szapiro, M., Vargas, M. A., Brito, M. M., & Cassiolato, J. E. (2016). Global value chains and national systems of innovation: Policy implications for developing countries. *Rio de Janeiro: UFRJ*.
- Taticchi, P., Tonelli, F., & Cagnazzo, L. (2010). Performance measurement and management: a literature review and a research agenda. *Measuring business excellence*, 14(1), 4-18.

- USAID (2009). *USAID/Yemen economic growth strategy options review*. USAID/EGAT/EC.
- World Bank (2015). *The republic of Yemen: Unlocking the potential for economic growth*. World Bank Reports No. 102151-YE.
- World Bank (2017). Information from <http://www.worldbank.org/en/country/yemen>.
- World Bank/IFC (2010). *Micro, small and medium enterprises around the world: How many are there, and what affect count? .*
- Yang, X. (2014). Different choice of strategic innovation among companies in China market. *Journal of Science and Technology Policy Management*, 5(6), 106 – 121.
- YMIT 2014. *General report of the result of the comprehensive industrial survey 2010*. Yemen Ministry of trade and industry.
- Zoo, H., de Vries, H. J., & Lee, H. (2017). Interplay of innovation and standardization: Exploring the relevance in developing countries. *Technological Forecasting and Social Change*, 118, 334-348.