THE EFFECTIVENESS OF KNOWLEDGE MANAGEMENT AND EXPORT PERFORMANCE AMONG MALAYSIAN SMEs: MEDIATED BY INNOVATION

Khaw Jia-Qi1+ Shankar Chelliah2

1,2 School of Management, Universiti Sains Malaysia, Penang, Malaysia.
1Email: holdkajq@gmail.com Tel: +60164508439
2Email: shankarchelliah1@gmail.com Tel: +60126618731

ABSTRACT

Small and Medium Enterprises (SMEs) works as the backbone of the economy. The commerce market is changing rapidly and organizations that are not developed well will struggle in order to survive in the competitive market. This brings a great challenge for SMEs in Malaysia as they are not developed in the full strength. This is where knowledge takes place as it carries the resources and values that could lead organization to gain competitive advantage. Malaysian government takes the initiative of knowledge management among Malaysian organization by making the transition from production-based economy to knowledge-based economy. Innovation came to mind for organization to reinvest themselves in order to standstill in the competitive market. Innovation works in producing a new and creative idea in implementing new products or enhancement on the existing products which could help to improve the organizational performance. This study focuses on how knowledge management and innovation affect the export performance of SMEs. There are three dimensions of knowledge management in this study, namely, knowledge acquisition, knowledge dissemination and knowledge application. This study anticipates that the three dimension of knowledge management are critical antecedents on the export performance which could lead to positive relationship with the export performance of SMEs. This research provides ideas that generate effective framework which help SMEs to grow in the export market in a longer term and lead them in identifying effective strategies and helps in improving their export performance.

Contribution/ Originality: This study uses new estimation methodology and originates new formula on how knowledge management could affect SMEs’ export performance when it is mediated by innovation. This study is a very few studies which have investigated the mediating effect of innovation towards knowledge management and export performance among Malaysian SMEs.

1. INTRODUCTION

This study is carried out in order to determine on how knowledge management and innovation affect export performance among SMEs in Malaysia. Export performance plays a significant role to the business. However, it is not easy to achieve especially in this competitive and dynamic market. Therefore, it is vital to determine how knowledge management is carried out among SMEs and how the knowledge management and innovation affect the export performance in SMEs. This research provides ideas by generating the effective framework which help SMEs
to grow in the export market in a longer term. This study anticipates that the three dimension of knowledge management such as knowledge acquisition, knowledge dissemination and knowledge application are critical antecedents on the export performance which could lead to positive relationship with the export performance of SMEs.

As mentioned, this study focused on manufacturing SMEs in Malaysia. Several researchers such as Chandran and Munusamy (2009) supported that manufacturing sector is the driver of the economy and works as the important source of employment for the economy. In order to standstill in the market, an organization needs to gain competitive advantage in the market. Kuhn and Marisck (2010) mentioned that innovation takes place in transforming the ideas that aims to satisfy the needs of customers. SMEs requires innovation in order to gain competitive advantage in the market as well as make an improvement on their export performance. SMEs able to determine the level of the business either in good level or worse level through the export performance.

However, Malaysian SMEs are not developed in the full strength and could lead to low export performance. Some SMEs are still facing obstacles in accessing to relevant technology and highly dependence on the poor technology. On the other hand, some SMEs mentioned that they lack time and fund in conducting research and development as they viewed research and development as a cost rather than an investment. The great side is that Malaysian SMEs noticed the risk in business and raise the awareness towards knowledge management in order to manage the acquired knowledge or information that lead to business performance enhancement.

This study must be carried out in order to address the issues that faced by Malaysian SMEs. Resource-based theory, knowledge-based view theory and internationalization process model work as the underpinning theory in this study. This study aims to determine the relationship between knowledge management which included knowledge acquisition, knowledge dissemination and knowledge application and export performance among SMEs in Malaysia and mediated by innovation. The result obtained from the research could benefit and used as a guideline for SMEs which keen in paying attention on knowledge management in order to enhance their organization’s export performance. It also can provide a basis for understanding the influence of innovation on the link between knowledge management and export performance. In addition, a pool of knowledge regarding the importance of knowledge management which involved knowledge acquisition, knowledge dissemination and knowledge application and innovation can also be provided through the research. SMEs in Malaysia can gain the knowledge in knowledge management and innovation as well as improve the export performance.

2. LITERATURE REVIEW

2.1. Small and Medium Enterprises (SMEs)

The success of SMEs may lead to the success of larger organization as most of the corporations start with SMEs. SMEs are the fundamental of the economies. SME International Malaysia (2013) mentioned that SMEs also have the potential in growing the future development in Malaysia. Malaysian SMEs contribute to the economic well such as contribution to GDP by sector, employment, and export by sector as well as productivity. In addition, Saleh and Ndubisi (2006) also stated that SMEs are the backbone for the industrial development in Malaysia. In order to accomplish the vision 2020, SMEs play an important in helping the development of Malaysia economy.

Katua (2014) mentioned that SMEs in Malaysia can be defined according to the number of workers employed and the volume of sales turnover. A manufacturing firm is classified as SMEs when there are less than or equal to 150 employees with the sales turnover less than or equal to RM25M (Katua, 2014). SME Annual Report Malaysia (2019) mentioned that a manufacturing firm is classified as small enterprise when the sales turnover is between RM300,000 and RM 15million with the number of employees between 5 and 75. Medium enterprise of manufacturing sector has the sales turnover in between RM 15 mil and RM 50 mil while the employees is ranged between 75 and 200. Besides that, Hilmi, Ramayah, Mustapha, and Pawanchik (2010) mentioned that there are several activities included in the manufacturing sector of SMEs Malaysia such as production and processing of raw
materials, petroleum, chemical, rubber and plastic products, food, beverages and tobacco products, non-metallic mineral products, basic metals and fabricated metal products and manufacturing of electrical and electronics appliances.

Manufacturing SMEs companies are located at the central parts of Malaysia. Manufacturing sector in SMEs Malaysia plays an important role in Malaysian Economy. It is supported by several researchers such as Chandran and Munusamy (2009) mentioned that manufacturing sector is the driver of the economy and important source of employment for the nation. Malaysia was broadly perceived as a standout amongst the best nations in the world. The manufacturing sector has indeed helped Malaysian exports and has become the crucial aspect in persistent rapid financial development. Manufacturing played an important role in the financial transformation in Malaysia.

2.2. Export Performance

Export performance plays an important role while business is carried out. Export performance can strive to improve the performance of the SMEs in the management. Throughout the export performance, SMEs able to see whether their business is in a good level or worse level. Exporting which includes travelling across borders, sell products to another country takes place since ancient history. International trading increased not only could help in gaining profit and market share but also able to share or exchange the knowledge, culture, religion and language across the borders (Christian, 2000). This depicts the importance of exporting towards all the firms.

Larimo (2006) mentioned that export is a platform in which involve for future international expansion. Exporting able to help manufacturing SMEs to overcome the challenges and create the opportunities for the firms to involve in market share expansion as exchange of knowledge and experiences. This is very important for those firms that have insufficient knowledge on foreign countries. Knight and Cavusgil (2005) mentioned that it is important for organization that near or from home country to gain the international business performance through the application of knowledge-based resources to the sale output in foreign countries. Cassiman and Golovko (2011) stated that by entering and exporting to the foreign market, the organization enjoy the advantage of entering the foreign market straightforward and avoid the huge amount of start-up cost, especially for manufacturing SMEs that lack of capital. Besides that, Lu and Beamish (2006) pointed out that the organization that involve in exporting able to gain international knowledge and experiences. It is important for SMEs to understand how small and medium-sized enterprises can leverage their capabilities to a competitive advantage in order to sustain in the competitive export market (Kshetri, 2011).

2.3. Innovation

Daugherty, Chen, and Ferrin (2011) defined innovation as the idea or practice that is adopted as new one by one individual. Kuhn and Marisc (2010) stated that innovation is the process in transforming the idea which aims to create and satisfy the needs of the customers. Recently, Hinterhuber and Liozu (2014) mentioned that innovation is the process of creating value and competitive advantage for the organization. Griffith, Huergo, Mairesse, and Peters (2006) mentioned that innovation can enhance the firm markets. By using new knowledge in making a new product or service to the customer is the definition of innovation which is defined by Afiash (1998). Damanpour (1991), Kimberly and Evanisko (1981); Lin (2007) support this statement by mentioning innovation as the new process towards the firm which included goods, services, policies, projects and equipment.

Subramaniam and Youndt (2005) pointed out that innovation allows organization to convert ideas into original or enhanced products or services which allows the organization to stay competitive in the market as well as allow organization to distinguish the uniqueness in them compared to their competitors. Innovation plays an important role towards the organizations as it could lead to the performance enhancement of the firm. Innovation is becoming a test that allows organization to test their products or services in order to gain greater profit as well as stay competitive in the market. Two type of innovation namely, product innovation and process innovation will be
discussed. Al-Sa'di, Abdallah, and Dahiyat (2017) mentioned that product innovation is an ongoing and cross-functional process which integrates the increasing number of different capabilities within and outside the organizational limits. On the other hand, throughout the process innovation, the way that an organization uses both knowledge and ideas of external partners is the core of the innovation (Al-Sa'di et al., 2017).

In short, innovation allows the organization to reshape into new version which could allow them to stay competitive in the market compared to their competitors. Innovation could lead to partial or major change towards the existing product line. Therefore, SMEs must adapt to the changes in order to response to the changing market conditions (Huergo & Jaumandreu, 2004).

2.4. Knowledge Management

Malaysia is making the transition from production-based economy to a knowledge-based economy and this causes the initiative of knowledge management among Malaysia organization is critically important for their organizational success. Riege (2007) pointed out that knowledge plays an important role in creating wealth and prosperity as well as in making the business success. Knowledge is essential to the organization as it could work as the source for the organization to survive in the competitive market. It is the main engine of economic growth and the catalyst for technological progress and productivity (Abusweilem & Abualous, 2019). Knowledge management (KM) as a concept has become important because of the growing awareness of the importance of knowledge for the organization’s prosperity and survival (Byukusenge & Munene, 2017). In summarize, KM allows the organization to meet the needs and expectation as well enhance the firm performance and competitiveness in the market through developing new ideas or ways. Three dimensions of knowledge management namely, knowledge acquisition, knowledge dissemination and knowledge application were carried out in this study.

2.5. Knowledge Acquisition

Obeid and Rabay’a (2016) mentioned that knowledge acquisition includes the processes in which the organization seek to produce and create knowledge, either in between implicit knowledge and explicit knowledge in which it is an interaction between implicit knowledge and explicit knowledge through new knowledge is created and created within the organization to secure the various types of knowledge in favour of future decisions (Abualoush, Masa’deh, Bataineh, & Alrowwad, 2018; Zawaideh, Al-Zoubi, Abualoush, Kanaan, & Masa’deh, 2018). Knowledge acquisition plays an important role towards the organization. This is because the appropriate knowledge acquisition lead to the increase of the asset of knowledge towards the firm and hence enhance the performance of the firm. Regarding this, Reisi, Hoseini, Talebpour, and Nazari (2013) mentioned that the acquired knowledge must be organized effectively in order to be valuable and useful towards the firm. Liao, Wu, Hu, and Tsui (2010) mentioned that effort and experience are needed in the process of acquiring the knowledge. Besides that, Liao et al. (2010) also conducted the same study in Taiwan and found that there is a significant relationship between knowledge acquisition and performance.

2.6. Knowledge Dissemination

Knowledge dissemination is also known as knowledge sharing or knowledge transfer. Makore and Eresia-Eke (2014) related knowledge dissemination as the distribution of knowledge within the organization. Knowledge dissemination is also defined as the processes and methods of the organization to disseminate and transfer knowledge among employees to use and develop it to generate new knowledge (Dalkir, 2005; Obeidat, Abualoush, Irtaimeh, Khaddam, & Bataineh, 2018). Knowledge sharing is one of the most important elements of successful knowledge management because it covers the differences that cannot be achieved from other knowledge management processes, and is critical for the proper utilization and use of knowledge assets (Abusweilem & Abualous, 2019). Knowledge sharing has a direct impact on other knowledge processes such as knowledge
integration and generation (Masa’deh, Obeidat, & Tarhini, 2016) the process of knowledge sharing is done through people sharing implicit and explicit knowledge which generates new knowledge (Hsiao, Chen, & Chang, 2011). In order to create a knowledge sharing culture, the organizations need to encourage people to work together effectively in order to collaborate and share as well as to make the organizational knowledge more productive (Fatemeh & Jamal El-Den, 2017). Knowledge dissemination is one of the knowledge management dimensions which is used in testing the relationship between KM and performance. It is also expected that knowledge dissemination has a positive relationship with the performance. The study conducted by Hurmelinna-Laukkanen (2011) also shows the positive relationship between knowledge dissemination and innovation performance. In this study, knowledge dissemination works as one of the independent variables while export performance works as the dependent variable follow by innovation as the mediator.

2.7. Knowledge Application

Daud and Yusoff (2010) defined knowledge application which involves in storage and sharing application of knowledge. Organization could apply the gained knowledge in solving problems that they face in the organization. Bhatt (2001) stated that it is important for knowledge application to be carried within the organizations as it allows the organizations to be more active and create value. Effective application of the knowledge and its efficiency knowledge application is to ensure the achievement of the objectives of the organization efficiently and effectively (Abusweilem & Abualous, 2019). In general, knowledge application is the process involving the actual use of knowledge for decision making and problem solving (Gold, Malhotra, & Segars, 2001). Besides, knowledge application can help to transform knowledge from being a potential power tool into actual innovations or inventions which can enhance overall performance of organizations (Madhoushi, Sadati, Delavari, Mehdivand, & Mihandost, 2011; Matin, Nakhchian, & Kashani, 2013). Knowledge application is one of the knowledge management dimensions which is used in testing the relationship between KM and performance. It is also expected that knowledge application has a positive relationship with the performance. Hamdoun, Jabbour, and Othman (2018) carried a study and suggested that knowledge application is a fundamental success factor for the development of new products and facilitator of innovation and firm performance. The main goal of knowledge application is to integrate knowledge obtained from internal and external sources to drive organizational objectives (Shin, Holden, & Schmidt, 2001).

3. THEORETICAL FRAMEWORK

The framework consists of three constructs. There are variables (IV), namely knowledge acquisition while export performance works as the dependent variable (DV) in this study. At the same time, innovation is the mediator in the study.

4. HYPOTHESES

Throughout the study, seven hypotheses developed in order to determine the relationship between knowledge acquisition, knowledge dissemination, knowledge application, and innovation. Apart from that, the relationship and innovation and export performance in SMEs Malaysia were tested as well. As mentioned before, innovation works as the mediator in this study. In addition, these hypotheses aimed to address the research objectives and research question in this study. There are the lists of hypotheses that were tested during this research of study as below:

H1: Knowledge acquisition has a significant relationship with innovation among SMEs in Malaysia.
H2: Knowledge dissemination has a significant relationship with innovation among SMEs in Malaysia.
H3: Knowledge application has a significant relationship with innovation among SMEs in Malaysia.
H4: Innovation has a significant relationship with export performance among SMEs in Malaysia.
H5: Innovation has mediating role between knowledge acquisition and export performance.
H6: Innovation has mediating role between knowledge dissemination and export performance.

© 2020. AESS Publications. All Rights Reserved.
H7: Innovation has mediating role between knowledge application and export performance.

Figure 1. Theoretical framework of knowledge management and export performance among SMEs in Malaysia.

5. METHODOLOGY

Academic databases were explored in order to retrieve literature for the study. Areas related to innovation, organizational performance, and competitive advantage of the organizations were examined. Databases such as ScienceDirect, utmj.org, nih.gov, nchu.edu.tw were explored, and keywords such as SMEs, Malaysia, competitive advantage, innovation, organization performance, export performance of SMEs, resource-based view, knowledge-based view etc. were used to retrieve literature related to the study. Apart from that, cross sectional data is used as the method of study. Cross sectional study is carried out at a single point of time and does not involve in manipulating the variables.

Data collection will be conducted within three months. As planned, all the questionnaires will be sent to the selected SMEs. Before the formal data collection, pre-testing is carried out by having selected companies in answering the questionnaires. Besides that, the personal information regarding the experience of the power sponsor on the export performance of the firm will be collected from the respondents and the survey was voluntary and anonymous. Others than, this research is conducted by using quantitative research technique.

Besides that, the target respondents throughout the research focus on upper-level manager, directors and CEO who are the power sponsor or decision makers within the organization in making important decision of the organization operation. The respondents must have the authority in decision making for the direction and strategy for the corporation. This study was carried out through survey instruments. The targeted respondents are from the manufacturing SMEs in Malaysia. Pilot testing was also carried out in order to test the obstacles of the questionnaire. The data collection was conducted through emails and mail. The survey and mail collected were filtered in order to meet the criteria that mentioned. Upon filtering, only 93 responses are usable.

6. DISCUSSION

Hypotheses H1, examines the relationship between knowledge acquisition and innovation among SMEs in Malaysia. The result depicted that knowledge acquisition has a significant positive relationship with innovation. According to the result, the p values and T value for H1 was stated at 0.000 and 4.073. This depicts that the p value is less than 0.05 and t value is greater than 1.645. These values define the positive relationship between knowledge acquisition and innovation among SMEs in Malaysia. The positive relationship between knowledge acquisition and innovation is also supported by Liao et al. (2010) who conducted the study in Taiwan and found that there is a
significant relationship between knowledge acquisition and performance. In this study, knowledge acquisition works as one of the independent variables while export performance works as the dependent variable follow by innovation as the mediator. The positive effect of knowledge acquisition will bring benefits when SMEs compete in the export markets. In such, effectiveness of knowledge acquisition helps an organization in gaining useful and important information and knowledge that can be applied in the business.

Hypotheses H2, examines the relationship between knowledge dissemination and innovation among SMEs in Malaysia. Knowledge dissemination works as one of the independent variables in this study which has a negative influence towards the innovation among SMEs in Malaysia. According to the result collected, the p values and T value for H2 was stated at 0.264 and 1.117. This depicts that the p value is greater than 0.05 and t value is smaller than 1.645. These values define the negative relationship between knowledge dissemination and innovation among SMEs in Malaysia. Past researcher such as Hurmelinna-Laulkkanen (2011) determined the positive relationship between knowledge dissemination and innovation performance. However, there is an opposite result in this study where there is no significant relationship between knowledge dissemination towards innovation among SMEs in Malaysia. This may lead to SME is not taking all information and move towards innovation. The awareness of sharing knowledge or information among SME is still low.

Hypotheses H3, examines the relationship between knowledge application and innovation among SMEs in Malaysia. The result depicted that knowledge acquisition has a significant positive relationship with innovation. According to the result collected, the p values and T value for H3 was stated at 0.000 and 4.073. This depicts that the p value is less than 0.05 and t value is greater than 1.645. These values define the positive relationship between knowledge application and innovation among SMEs in Malaysia. The positive relationship between knowledge acquisition and innovation is also supported by Liu and Deng (2015) who carried out their study in determining the relationship between knowledge management and outsourcing performance. Throughout the study, it was found that knowledge application has the highest positive relationship with outsourcing performance and works as the most significant of KM dimension in the study. Knowledge application plays a vital role towards SMEs' export performance. Without knowledge application, an organization cannot manage the knowledge and information gained and convert the knowledge in working life well. The effectiveness of knowledge application allows the employees of the company to transform the gained knowledge into innovation that will brings profit to the organization.

Hypotheses H4, examines the relationship between innovation and export performance among SMEs in Malaysia. Innovation found to have positive relationship with export performance through the hypotheses testing. It is also supported by the past (Oum, Narjoko, & Charles, 2014). The positive result of the relationship between innovation and export performance among SMEs in Malaysia depicts the awareness of firms towards the importance of innovation. Managers, managing directors and owners are the selected respondents and they aware on the importance of innovation and it is believed that the willingness to invest in innovation will be high. The results of the study showed that manufacturing SMEs in Malaysia are aware of the benefits of innovation which could help to improve their export performance. In order to achieve outstanding result, more effort and attention towards the awareness of innovation must be carried out. Innovation not only helps manufacturing SMEs in reducing cost and production time, it also helps to increase the quality of the products.

Hypotheses H5, examines the relationship between knowledge acquisition and export performance among SMEs in Malaysia when it is mediated by innovation. There is a positive relationship between knowledge acquisition and export performance among SMEs in Malaysia. The capabilities of a firm in identifying the knowledge plays an important role towards the firm as gained knowledge could help by contributing new way of completing tasks as well as proposed new products. The effectiveness of knowledge acquisition and innovation could help to enhance the export performance among SMEs. With the interaction of innovation between knowledge acquisition and export performance, the relationship between two variables get stronger. Jiang and Li (2009) which
focus on the relationship between knowledge acquisition and innovation also found the result to be positive among financial and manufacturing industries. This study proves that knowledge acquisition positive influence the export performance among manufacturing SMEs in Malaysia when mediated by innovation.

Hypotheses H6, examines the relationship between knowledge dissemination and export performance among SMEs in Malaysia when it is mediated by innovation. According to the result obtained, the p values and T value for H6 was stated at 0.269 and 1.106. This depicts that the p value is greater than 0.05 and t value is smaller than 1.645. These values define the negative relationship between knowledge dissemination and innovation among SMEs in Malaysia. Thus, H6 is rejected. It was expected that knowledge dissemination has a positive relationship with the performance. Past researcher such as Reisi et al. (2013) tested the relationship between knowledge management and business performance. The results of the study depict that knowledge dissemination, one of the dimensions of knowledge management has a significant relationship with business performance. However, there is an opposite result in this study where there is no significant relationship between knowledge dissemination towards innovation among SMEs in Malaysia. This may lead to SME is not taking all information and move towards innovation. The unwillingness among SMEs in sharing knowledge among each other could lead to low innovation and caused undesired export performance.

Hypotheses H7, examines the relationship between knowledge application and export performance among SMEs in Malaysia when it is mediated by innovation. Hypotheses shows that innovation can bring positive mediating effect towards knowledge application and export performance. According to the result that obtained, the p values and T value for H7 was stated at 0.000 and 3.083. This depicts that the p value is less than 0.05 and t value is greater than 1.645. These values define the positive relationship between knowledge application and export performance among SMEs in Malaysia when mediated by innovation. The positive relationship between knowledge acquisition and export performance is also supported by Jyoti, Gupta, and Kotwal (2011) in which the study depicted that knowledge application affects the export performance with innovation among telecommunication sector. The effectiveness of knowledge application and innovation plays an important role towards SMEs firm as it could bring impact towards the export performance of the organization.

| Hypothesis | Hypothesis Statement | Remarks |
|------------|----------------------|---------|
| H1         | Knowledge acquisition has a significant relationship with innovation among SMEs in Malaysia. | Supported |
| H2         | Knowledge dissemination has a significant relationship with innovation among SMEs in Malaysia. | Not Supported |
| H3         | Knowledge application has a significant relationship with innovation among SMEs in Malaysia. | Supported |
| H4         | Innovation has a significant relationship with export performance among SMEs in Malaysia. | Supported |
| H5         | Innovation has mediating role between knowledge acquisition and export performance. | Supported |
| H6         | Innovation has mediating role between knowledge dissemination and export performance. | Not Supported |
| H7         | Innovation has mediating role between knowledge application and export performance. | Supported |

### 7. CONCLUSION

Throughout the study, it was found that H1, H3, H4, H5 and H7 are supported. This study extended competency research by having several theoretical contributions. Firstly, this study provides a deeper understanding of knowledge management towards SMEs in Malaysia. The results of this study extend information from export performance literature through determining the potential source of strengthening the manufacturing SMEs in Malaysia. This study intends to explain the interaction within knowledge management which comprises of
knowledge acquisition, knowledge dissemination and knowledge application towards export performance with the mediating effect of innovation among SMEs in Malaysia. In comparison to past research, this study explores how knowledge management could bring effect towards export performance among SMEs in Malaysia together with innovation. This leads to a new idea to the owners and managers on managing their business. Knowledge management which includes knowledge acquisition, knowledge dissemination and knowledge application helps manufacturing industry of SMEs to grow in export performance. Throughout the study, it was found that knowledge dissemination is not positively strengthen the relationship between innovation and export performance. This may due to the SMEs do not know how to share the gained information within the company. However, knowledge acquisition and knowledge application directly influence innovation and export performance among SMEs in Malaysia. SME should pay much attention to KD where it is not taking all information and move towards innovation, there is a barrier to prevent that from happening. It could be lack of capital or lack of talent. SME should alert that knowledge sharing is one of the most important elements of successful knowledge management because it covers the differences that cannot be achieved from other knowledge management processes, and is critical for the proper utilization and use of knowledge assets (Abusweilem & Abualous, 2019). Knowledge management and innovation are equally important in order to have better export performance. This is because an organization must well manage the gained knowledge and applied them back to the business with innovativeness to help organization to stay different among competitors and gain competitive advantage within the competitive market. In general, effectiveness knowledge management and innovativeness are vital to build a sustainable business to grow further.

**Funding:** This work was supported by School of Management, Universiti Sains Malaysia.

**Competing Interests:** The authors declare that they have no competing interests.

**Acknowledgement:** Both authors contributed equally to the conception and design of the study.

**REFERENCES**

Abualoush, S., Masa’deh, R., Bataineh, K., & Alrowwad, A. (2018). The role of knowledge management process and intellectual capital as intermediary variables between knowledge management infrastructure and organization performance. Interdisciplinary Journal of Information, Knowledge, and Management, 13, 279-309. Available at: https://doi.org/10.28945/4088.

Abusweilem, M., & Abualous, S. (2019). The impact of knowledge management process and business intelligence on organizational performance. Management Science Letters, 21, 2153-2156. Available at: 10.5267/j.msl.2019.6.020.

Afuah, A. (1998). Strategies, implementation and profits. Innovation management (pp. 14-19.). London: Oxford University Press.

Al-Sa’di, A., Abdallah, A., & Dahiyat, S. (2017). The mediating roles of product and process innovations on the relationship between knowledge management and operational performance in Jordanian companies. Business Process Management Journal, 23(2), 349-376. Available at: 10.1108/BPMJ-03-2016-0047.

Bhatt. (2001). Knowledge management in organizations: Examining the interaction between technologies, techniques and people. Journal of Knowledge Management, 5(1), 68–75. Available at: https://doi.org/10.1108/13673270110384419.

Byukusenge, E., & Munene, J. C. (2017). Knowledge management and business performance: Does innovation matter? Cogent Business & Management, 4(1), 1–18. Available at: https://doi.org/10.1080/23311975.2017.1368434.

Cassiman, B., & Golovko, E. (2011). Innovation and internationalization through exports. Journal of International Business Studies, 42(1), 56-75. Available at: https://doi.org/10.1057/jibs.2010.36.

Chandran, V. G. R., & Munusamy. (2009). Trade openness and manufacturing growth in Malaysia. Journal of Policy Modeling, Elsevier, 31(5), 637-647.

Christian, D. (2000). Silk road or stepper roads? The silk roads in world history. Journal of World History, 11(1), 1-26.

Dalkir, K. (2005). Knowledge management in theory and practice. Montreal: McGill University.
Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal, 34*(3), 555-590. Available at: [http://dx.doi.org/10.2307/256406](http://dx.doi.org/10.2307/256406).

Daud, S., & Yusoff, W. (2010). Knowledge management and firm performance in SMEs: The role of social capital as a mediating variable. *Asian Academy of Management Journal, 15*(2), 135-155.

Daugherty, P. J., Chen, H., & Ferrin, B. G. (2011). Organizational structure and logistics service innovation. *International Journal of Logistics Management, 22*(1), 26-51. Available at: [http://dx.doi.org/10.1108/09574091111127543](http://dx.doi.org/10.1108/09574091111127543).

Fatemeh, T., & Jamal El-Den. (2017). The impact of knowledge management on organizational productivity: A case study on Koosar Bank of Iran. *Procedia Computer Science, 124*, 300-310. Available at: [10.1016/j.procs.2017.12.159](https://doi.org/10.1016/j.procs.2017.12.159).

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems, 18*(1), 185-214. Available at: [https://doi.org/10.1080/07421222.2001.11045669](https://doi.org/10.1080/07421222.2001.11045669).

Griffith, R., Huergo, E., Mairese, J., & Peters, B. (2006). Innovation and productivity across four European countries. *Oxford Review of Economic Policy, 22*(4), 483-498. Available at: [10.1093/oxrep/grj028](https://doi.org/10.1093/oxrep/grj028).

Hamdoun, M., Jabbour, C. J. C., & Othman, H. B. (2018). Knowledge transfer and organizational innovation: Impacts of quality and environmental management. *Journal of Cleaner Production, 193*, 759-770. Available at: [https://doi.org/10.1016/j.jclepro.2018.05.031](https://doi.org/10.1016/j.jclepro.2018.05.031).

Hilmi, M. F., Ramayah, T., Mustapha, Y., & Pawanchik, S. (2010). Product and process innovativeness: Evidence from Malaysian SMEs. *European Journal of Social Science, 16*(4), 556-565.

Hinterhuber, A., & Liozu, S. M. (2014). Is innovation in pricing your next source of competitive advantage? *Business Horizons, 57*(3), 413-423.

Hsiao, Y. C., Chen, C. J., & Chang, S. C. (2011). Knowledge management capacity and organizational performance: The social interaction view. *International Journal of Manpower, 32*(5-6), 645-660. Available at: [https://doi.org/10.1108/01437721111158242](https://doi.org/10.1108/01437721111158242).

Huergo, E., & Jaumandreu, J. (2004). How does probability of innovation change with firm age? *Small Business Economics, 22*(3-4), 193-207. Available at: [https://doi.org/10.1023/B:SBEC.0000022220.07366.b5](https://doi.org/10.1023/B:SBEC.0000022220.07366.b5).

Hurmelinna-Laukkanen, P. (2011). Enabling collaborative innovation – knowledge protection for knowledge sharing. *European Journal of Innovation, 18*(3), 303-321. Available at: [https://doi.org/10.1108/14601061111148816](https://doi.org/10.1108/14601061111148816).

Jiang, X., & Li, Y. (2009). An empirical investigation of knowledge management and innovative performance: The case of alliances. *Research Policy, 38*(2), 358-368.

Jyoti, J., Gupta, P., & Kotwal, S. (2011). Impact of knowledge management practices on innovative capacity: A study of telecommunication sector. *Vision, 15*(4), 315-330.

Katua, N. T. (2014). The role of SMEs in employment creation and economic growth in selected countries. *International Journal of Education and Research, 2*(12), 461-472.

Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal, 24*(4), 689-713. Available at: [http://dx.doi.org/10.2307/256170](http://dx.doi.org/10.2307/256170).

Knight, G. A., & Cavusgil, S. T. (2005). A taxonomy of born-global firms. *MIR: Management International Review, 45*, 15-35.

Kshetri, N. D. (2011). Regulative institutions supporting entrepreneurship in emerging economies: A comparison of China and India. *Journal of International Entrepreneurship, 110*-132. Available at: [https://doi.org/10.1007/s10843-010-0070-x](https://doi.org/10.1007/s10843-010-0070-x).

Kuhn, J. S., & Marisck, V. J. (2010). Action learning for strategic innovation in mature organizations: Key cognitive, design and contextual considerations. *Action Learning: Research and Practice, 2*(1), 27-48.

Larimo, J. (2006). Different types of exporting SMEs: Similarities and differences in export performance. *Advances in International Marketing, 17*, 17-62. Available at: [https://doi.org/10.1016/s1474-7971(06)17001-5](https://doi.org/10.1016/s1474-7971(06)17001-5).

Liao, S.-H., Wu, C.-C., Hu, D.-C., & Tsui, K.-A. (2010). Relationships between knowledge acquisition, absorptive capacity and innovation capability: An empirical study on Taiwan’s financial and manufacturing industries. *Journal of Information Science, 36*(1), 19-35. Available at: [https://doi.org/10.1177/0165551509340392](https://doi.org/10.1177/0165551509340392).
Lin, C. Y. (2007). Factors affecting innovation in logistics technologies for logistics service providers in China. *Journal of Technology Management in China, 2*(1), 22–37. Available at: [http://dx.doi.org/10.1108/17468770710723904](http://dx.doi.org/10.1108/17468770710723904).

Liu, S., & Deng, Z. (2015). Understanding knowledge management capability in business process outsourcing. *Management Decision, 53*(1), 124–138.

Lu, J. W., & Beamish, P. W. (2006). SME internationalization and performance: Growth vs. profitability. *Journal of International Entrepreneurship, 4*, 27–48. Available at: [http://dx.doi.org/10.1007/s10843-006-8000-7](http://dx.doi.org/10.1007/s10843-006-8000-7).

Madhoushi, M., Sadati, A., Delavari, H., Mehdiyand, M., & Mihandost, R. (2011). Entrepreneurial orientation and innovation performance: The mediating role of knowledge management. *Asian Journal of Business Management, 3*(4), 310–316.

Makore, S., & Eresia-Eke, C. E. (2014). *The role of knowledge management in organisational performance*. Paper presented at the 15th European Conference on Knowledge Management (ECKM2014), 4–5 September, Santarem, Portugal.

Masa’deh, R., Obeidat, B., & Tarhini, A. (2016). A Jordanian empirical study of the associations among trans-formational leadership, transactional leadership, knowledge sharing, job performance, and firm performance: A structural equation modelling approach. *Journal of Management Development, 35*(5), 681–705.

Matin, E. K., Nakhchian, A., & Hashani, B. H. (2013). Effect of employees’ entrepreneurial orientations on knowledge management in small and medium enterprises in Iran. *Journal of Basic and Applied Scientific Research, 3*(3), 608–617.

Obeid, S. M., & Rabay’a, S. (2016). The impact of knowledge management dimensions in the learning organization from the perspective of the Arab American University’s (AAU) faculty–Palestine. *Jordan Journal of Business Administration, 12*(4), 813–840. Available at: [https://doi.org/10.12816/0034970](https://doi.org/10.12816/0034970).

Obeidat, A. M., Abualoush, S. H., Irtainej, H. J., Khaddam, A. A., & Batainej, R. A. (2018). The role of organisational culture in enhancing the human capital applied study on the social security corporation. *International Journal of Learning and Intellectual Capital, 15*(3), 258–276. Available at: [https://doi.org/10.1504/ijlic.2018.094718](https://doi.org/10.1504/ijlic.2018.094718).

Oum, S., Narjoko, D., & Charles, H. (2014). Constraints, determinants of SME innovation, and the role of government support. Working Papers DP–2014–10, Economic Research Institute for ASEAN and East Asia (ERIA).

Reisi, M., Hoseini, S. E., Talebpour, M., & Nazari, V. (2013). Regression equation fitted to knowledge management and organizational effectiveness in the selected sport organizations of Iran. *African Journal of Business Management, 7*(39), 4159–4167.

Riege, A. (2007). Actions to overcome knowledge transfer barriers in MNCs. *Journal of Knowledge Management, 11*(1), 46–67. Available at: [https://doi.org/10.1108/13673270710728231](https://doi.org/10.1108/13673270710728231).

Saleh, A. S., & Ndubisi, N. O. (2006). An evaluation of SME development in Malaysia. *International Review of Business Research Papers, 2*(1), 1–14.

Shin, M., Holden, T., & Schmidt, R. A. (2001). From knowledge theory to management practice: Towards an integrated approach. *Information Processing & Management, 37*(2), 335–355. Available at: [https://doi.org/10.1016/s0306-4573(00)00031-5](https://doi.org/10.1016/s0306-4573(00)00031-5).

SME Annual Report Malaysia. (2019). Retrieved from: [https://www.smecorp.gov.my/index.php/en/](https://www.smecorp.gov.my/index.php/en/).

SME International Malaysia. (2013). Retrieved from: [http://smeinternational.org/sme-information/developing-malaysian-smes](http://smeinternational.org/sme-information/developing-malaysian-smes).

Subramaniam, M., & Younct, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management Journal, 48*(3), 450–463. Available at: [https://doi.org/10.5466/amj.2005.17407911](https://doi.org/10.5466/amj.2005.17407911).

Zawaideh, F., Al-Zoubi, M. I., Abualoush, S. H., Kanaan, R. K., & Masa’deh, R. (2018). The impact of knowledge documentation process as an intermediary variable among knowledge acquisition process, organizational culture and human capital. *Modern Applied Science, 12*(11), 151–168. Available at: [https://doi.org/10.5539/mas.v12n11p151](https://doi.org/10.5539/mas.v12n11p151).

*Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Asian Social Science shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.*