ID012

The Influence of Innovation and Financial Stability on the Competitive Advantage of Malaysian SMEs

[1*]Nurul Nadia Abd Aziz, [2] Sarminah Samad
[1] Faculty of Business Management,
Universiti Teknologi MARA (Pahang), Malaysia
[2]Arshad Ayub Graduate Business School,
Universiti Teknologi MARA, Malaysia

Abstract

This paper aims to examine the influence of innovation and financial stability on the competitive advantage of Malaysian SMEs. This study applied the positivist paradigm and quantitative methodology. The data were collected using a simple random sampling technique and then analysed using SEM-AMOS. The results suggest that innovative firms with strong financial stability are more likely to gain a competitive advantage. The results indicate that SMEs should invest in innovation and manages their financials efficiently to gain any competitive advantage. This study contributed to the literature by empirically investigating the effect of innovation and financial stability on competitive advantage specifically in Malaysian SMEs. The authors conclude with implications for strategic management in theory and practice.

Keywords*: competitive advantage; financial stability; innovation; Malaysia; SMEs*

1. INTRODUCTION

According to the summary of the SME Masterplan 2012-2020 (SME Corp., 2012), many SMEs in Malaysia have not been able to stay in the market for more than five years of establishing their organisation (Khalique, 2011). Jebna and Baharudin (2013) suggest that it is important to conduct research to understand the factors leading to the success of SMEs since the failure rate of SMEs in Malaysia is quite substantial. The Ministry of Domestic Trade, Cooperatives and Consumerism (KPDNKK) has identified several weaknesses when studying SMEs in Malaysia, namely product quality and unstable financials (Maktab Koperasi Malaysia, 2010). Theoretically, scholars normally consider factors such as innovation, networking, and financial capabilities as aspects of organisational capabilities, which are often associated with competitive advantage. Empirically, some research have shown the association between innovation capability (Abou-Moghli, Abdallah, & Muala, 2012; Nguyen, Quang Pham, Nguyen, & Nguyen, 2008) and financial stability (Kaleka, 2002; Keasey, Pindado, & Rodrigues, 2014; Utami & Lantu, 2014; Wethyavivorn, Charoenngam, & Teerajetgul, 2009) with that of the competitive advantage of SMEs.

The purpose of this research is to extend the literature regarding the effects of innovation and financial stability on the dimensions of competitive advantage. Specifically, this research seeks to improve the understanding of how these two predictors may particularly affect the cost advantage, product advantage, and service advantage of SMEs in Malaysia. Innovative companies that are stable financially are said to have more opportunities to grow and remain competitive in the industry. Although many studies have examined the effects of innovation and financial stability on competitive advantage (Abou-Moghli et al., 2012; Aziz & Samad, 2016; Büyükbalcı, 2012; Dorobat, Carmen & Topan, 2015; Khan, 2015; Moghavvemi, 2012; Saunila, 2014; Yu, Yan, & Assimakopoulos, 2015), the understanding of how these factors

[*]Corresponding author, e-mail: nurul_nadia@pahang.uitm.edu.my

could affect each dimension of competitive advantage (cost, product, and service) is still very limited. As yet, there has been no empirical study on the effects of innovation and financial stability on competitive advantage dimensions, which are cost, product, and service, specifically in Malaysian SMEs. Therefore, this paper attempts to bridge this research gap.

This article begins with an overview of previous studies and the literature on competitive advantage. Then, the employed research method is specified. The study's findings are then presented and discussed. The implication, significance, limitations, and recommendation for future research are then examined. The last section of this paper presents the conclusions.

2. AN OVERVIEW OF PREVIOUS STUDIES

Previous scholars have suggested that competitive advantage is not just a single dimension, but also a global concept. Basically, a firm is said to have achieved a competitive advantage when the product it offers has more value compared to other rival firms i.e. when it has a cost advantage and a differentiation advantage (Bharadwaj, Varadarajan, & Fahy, 1993). Cost advantage is typified by a firm offering lower-priced products and services than rival firms, while differentiation advantage refers to the customers' perception of a consistent difference in important attributes between the firm's product and that of its competitors (Bharadwaj et al., 1993). A few researchers have applied this measurement (Ling-yee & Ogunmokun, 1998) in their study of competitive advantage among exporting companies in China.

This line of research was later extended by Piercy, Anna, and Katsikeas (1998). In their review of researches on competitive advantage, they suggested that cost advantage might reflect a firm's systematic efforts to improve efficiency; meanwhile differentiation advantage could be expressed more finely as product advantage and service advantage. A study done by Kaleka (2002) used this approach to measure competitive advantage i.e. in terms of cost advantage, product advantage, and service advantage. In her study, cost advantage referred to the cost of goods sold, production cost per unit, and selling price to end-user customers. Superior quality, packaging, labelling, and the design and style of the product determine product advantage, whereas service advantage was manifested through technical support and after-sales service, product accessibility, delivery speed and reliability, and the diversity of products offered in the market.

A similar research that contributes to the measurement of competitive advantage was conducted by Feng, Sun, and Zhang (2010). These researchers suggested five dimensions to competitive advantage i.e. product quality, cost leadership, delivery reliability, process flexibility, and customer service. This newly proposed measurement was further expanded upon in the study of Li, Ragu-Nathan, Ragu-Nathan, and Subba Rao (2006) in which they outlined that competitive advantage should include five dimensions, i.e. cost, quality, delivery dependability, product innovation, and time to market.

The more recent studies, such as the study of Abou-Moghli, Abdallah and Muala (2012), however, measured competitive advantage using only four elements, namely time advantage, quality, cost, and flexibility. Time advantage refers to delivery time and period between product idea generations until final production is achieved. Quality is referred to as the extent to which a product has unique attributes. Abou-Moghli and colleagues (2012) defined cost as direct or indirect cost, fixed or variable cost, and short- or long-term cost. Meanwhile, flexibility was defined as the ability to trace changes in consumer needs and the firm's ability to respond to these changes in consumer demand (Abou-Moghli et al., 2012). However, they applied the four dimensions of this competitive advantage in the banking industry which offers financial services, as their case study. Existing studies have argued that there is no definite agreement on the way competitive advantage should be measured. Therefore, this study has used the measurement by Kaleka (2002), which is to measure competitive advantage using only three

elements, namely cost advantage, product advantage, and service advantage. This is because the instruments suggested by Kaleka (2002) have acceptable reliability and validity, and are also less time consuming.

Some researchers have concluded that SMEs can gain even more benefit if they develop, communicate, embrace, and explore the concept of innovation (Saunila, 2014). The literature evidenced that SMEs could improve productivity through established techniques and involvement in innovation, which is through technology and R&D (Ng, Mui, & Kee, 2012). Numerous researchers also agree with this method, and have found that the critical factor that drives the competitiveness of SME entrepreneurs is innovation (Muscio, Nardone, & Dottore, 2010; Ng et al., 2012; Tohidi & Jabbari, 2012; Tudor, Zaharie, & Osoian, 2014; Williams & Hare, 2012).

Hamdani and Wirawan (2012) also stressed that innovation could be a determining factor of competitive advantage. They reason that innovation enables a firm to create greater economic value for its products compared to rival firms. Besides, innovation may also affect economies of scale and shorten the process of production, and thereby influence the firm's competitiveness. In other words, innovation is an important element for SMEs because it is the only element that would attract customer loyalty in this day and age of their easily substituting products with the ones readily provided by other competitors (Wai, Hafiz, & Yew, 2013).

In short, SMEs that are open to innovations in their operations are more likely to improve their business performance, enhance their competitive advantage, and ensure their survival in the market (Al-Ansari, Pervan, & Xu, 2013; Popescu, 2014; Zain & Kassim, 2012). Although numerous studies have been done to determine the impact of innovation on competitive advantage, the study on the impact of innovation on each dimension of competitive advantage, i.e., cost advantage, product advantage, and service advantage, are still lacking, primarily in Malaysia. Previous studies have yet to prove empirically the effects of innovation on competitive advantage dimensions. Therefore, the following hypotheses for this study are proposed:

H1: There is a significant relationship between innovation and cost advantage.
H2: There is a significant relationship between innovation and product advantage.
H3: There is a significant relationship between innovation and service advantage.

In addition, the financial aspect is also one of the resources that a firm needs to start a business, operate, or continue to grow. Marlow and Strange (1994, p.180) stated that "all businesses must be financially viable on some level to continue to exist". Studies on export firms show that exporters with strong financial resources may be in a relatively strong position because they are able to achieve cost reductions, as they can quickly finance any development and can rapidly obtain a required resource (Kaleka, 2002).

Piercy and colleagues (1998) empirically reported that the financial resources available for export are closely related to both cost competitive advantage and service competitive advantage. Adequate financing may increase production capacity, achieve economies of scale, improve the ability to employ adequate manpower, and increase the use of modern technology and equipment, all of which ultimately enables small firms to compete efficiently with their competitors on price and non-price factors (Ling-yee & Ogunmokun, 1998). As mentioned by Wethyavivorn and colleagues (2009), the advantages of SMEs that have strong financial capabilities include that they are in a better position to absorb risks, explore innovative ideas, increase their ability to expand their volume, and have a greater opportunity to grab new investments.

In the case of Malaysia, the literature explains that the main finance-related issue for Malaysian SMes is the problem of financial stability (Abdullah, Hamali, Deen, Saban, &

Abdurahman, 2009; Hamdani & Wirawan, 2012; Rahman, Wasilan, Deros, & Saibani, 2011). It is implied that financial stability is the reason why SMEs are not gaining any competitive advantage in marketing their products in hypermarkets. SMEs that are financially stable are expected to have no problem in obtaining urgently required capital at reasonable rates (Wethyavivorn et al., 2009). One explanation is that the SMEs that are financially stable may have a good credit record with local banks, and this facilitates their dealings with bankers when applying for loans. Kogid, Mansur, Mulok, and Akmadia (2009) stressed that financial stability might help SMEs to remain competitive with their rivals. These researchers found that the existence of financing facilities from Banking and Financial Institutions could accelerate the growth of SMEs. The same opinion was highlighted by Salikin and colleagues (2014) who suggested that SMEs in Malaysia must use the financing facilities granted by Financial Institutions or Government entities to help them retain strong financials and to further develop their business. These findings consistently support previous research findings, which determined that the possession of superior financial resources may lead to a significant competitive advantage (Hassan, Yaacob, & Abdullatiff, 2014).

There have also been studies by previous researchers that have mainly used the financial factor as an endogenous construct (Hassan et al., 2014; Kasim, 2009; Salikin, Wahab, & Muhammad, 2014; Saunila, 2014; Shu-Jen Chen, 2013). Financial performance is the most frequently used endogenous construct. It is measured using the profit to sales ratio, return on investment, return on assets, market share, sales volume, and cash flow. However, studies that use the financial factor as an exogenous construct are still very limited (Abdullah et al., 2009; Hamdani & Wirawan, 2012; Rahman et al., 2011; Wethyavivorn et al., 2009). Studies that measure the effects of financial stability on competitive advantage dimensions are even more rare. Therefore, this study differs from previous studies in that the authors expect that there will be a significant difference between the effect of financial stability on cost advantage, product advantage, and service advantage, respectively. Thus, the following hypotheses are proposed:

H4: There is a significant relationship between financial stability and cost advantage.
H5: There is a significant relationship between financial stability and product advantage.
H6: There is a significant relationship between financial stability and service advantage.

3. METHOD

3.1 Research Framework

The dependent variables for this study are the competitive advantage dimensions, which are a cost advantage, product advantage, and service advantage, whereas the independent variables for this study are innovation and financial stability. This study aims to investigate the influence of innovation and financial stability on the dimensions of competitive advantage.

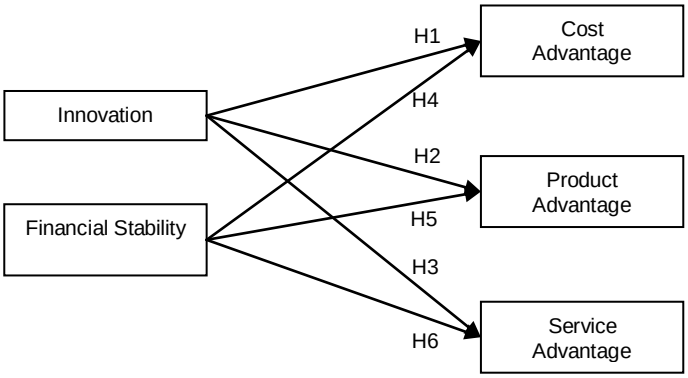

Figure 1: Conceptual Framework

This study proposes a conceptual framework for a specific model designed to explain the link between innovation and financial stability with each component of competitive advantage. The current research lays out a conceptual framework designed to analyse the extent of innovation and financial stability in Malaysian SMEs. This framework is then used to analyse the impact of these two variables on competitive advantage. Figure 1, which illustrates the essential constructs included in this study, will serve as a guide for subsequent discussions. In consideration of the literature review, the current research proposes that innovation and financial stability would improve the competitive advantage among SMEs in Malaysia regarding cost, product, and service.

3.2 Research Design and Data Collection

This study aims to confirm the theory, as well as support or challenge the findings of previous researchers in different research contexts. In order to confirm the underpinning theory, hypothesis testing should be conducted (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). For this reason, the quantitative paradigm was chosen for this study. This is because a quantitative approach enables the validation of the hypotheses proposed.

In order to confirm the theory, this study has to test the fitness indices to indicate the extent to which the theoretical model fits the observed data (Hair et al., 2011). Hence, CB-SEM was used as the appropriate approach for performing a Confirmatory Factor Analysis (CFA) and estimating the correlation and covariance in the proposed model. In addition, this study aims to assess the direct relationship between the exogenous and endogenous constructs of this research. Therefore, the CB-SEM is seen as a suitable statistical method for this study, as this method enables the analyses of multiple equations simultaneously (Zainudin, 2014).

The population of interest for this study is the food manufacturing SMEs in Malaysia. A set of questionnaires was used as the main instrument for this study. The questionnaire incorporated sections dealing with demographic details, measures the innovation and financial stability, and measures of cost advantage, product advantage, and service advantage. The final version of the questionnaire comprises of 36 statements (see Appendix) measured with a five-point Likert scale. The actual survey was carried out between October and December 2015. A total of 350 questionnaires were distributed to the owner of food manufacturing SMEs in Malaysia using a simple random sampling technique. Of the 350 enterprises in the sample for this study, 300 completed questionnaires were returned.

4. ANALYSIS AND RESULTS

The Cronbach's Alpha values were found to range between 0.832 and 0.966, thus fulfilling the minimum requirement level of reliability. The values for Cronbach's Alpha further indicate that the measures for this study are good and reliable. The sample of this study includes 300

SMEs in Malaysia. Gender distribution shows that the sample is predominantly female. 58 per cent of the respondents were below 40 years old, and 42 per cent were more than 40 years old. A total of 51 per cent of the respondents have been in their firm for less than five years, whereas the remaining 49 per cent of respondents have been in their firm for more than five years.

Table 1: Profile of Respondents and Their Organisation

Category		Frequency	Percentage
Gender	Male	128	38.8
	Female	202	61.2
Age	20 – 30 years old	30	10.0
	> 30 – 40 years old	114	38.0
	> 40 – 50 years old	102	34.0
	> 50 – 60 years old	36	12.0
	> 60 years old	18	6.0
Years of experience	1 – 5 years	153	51.0
	> 5 years – 10 years	39	13.0
	> 10 – 15 years	36	12.0
	> 15 – 20 years	27	9.0
	> 20 – 25 years	18	6.0
	> 25 – 30 years	18	6.0
	> 30 years	9	3.0

4.1 Confirmation Factor Analysis

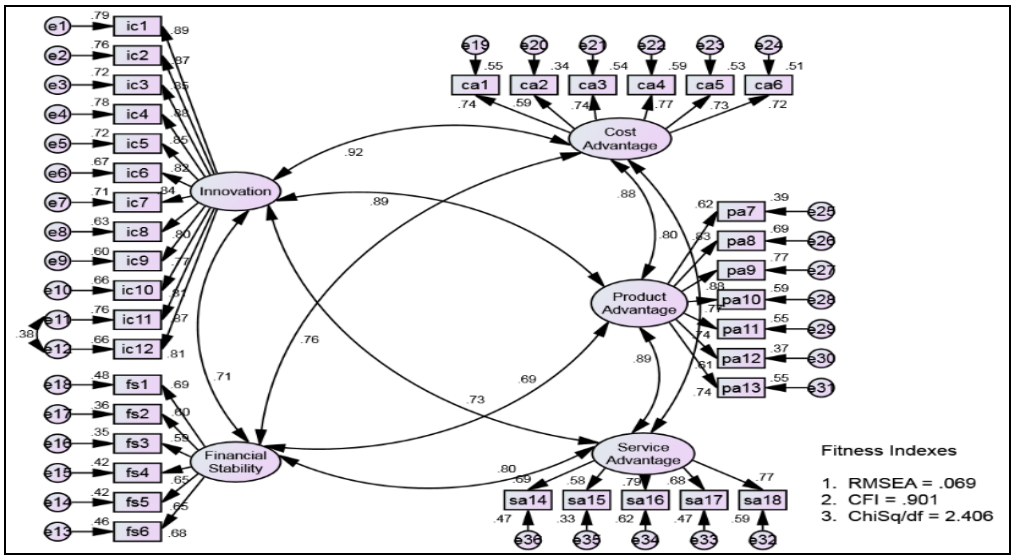

Figure 2: The CFA results showing the Factor Loading for Items and Factor Loading for Components

Figure 2 illustrates the fitness indices after four items were deleted. The absolute fit, incremental fit, and parsimonious fit achieved the required level (see Table 2), with RMSEA < 0.08, CFI > 0.90, and Chisq/df < 3.00 (Zainudin, 2012). Therefore, uni-dimensionality was achieved.

Table 2: The Summary of Fitness Indices of Overall Measurement Models

	Name of Index	Design range of values for a good fit	Index Value	Comments
Absolute fit	RMSEA	< 0.08	0.069	Fitness level is achieved
Incremental fit	CFI	> 0.90	0.901	Fitness level is achieved
Parsimonious fit	ChiSq/df	< 3.00	2.406	Fitness level is achieved

4.2 Structural Equation Modelling

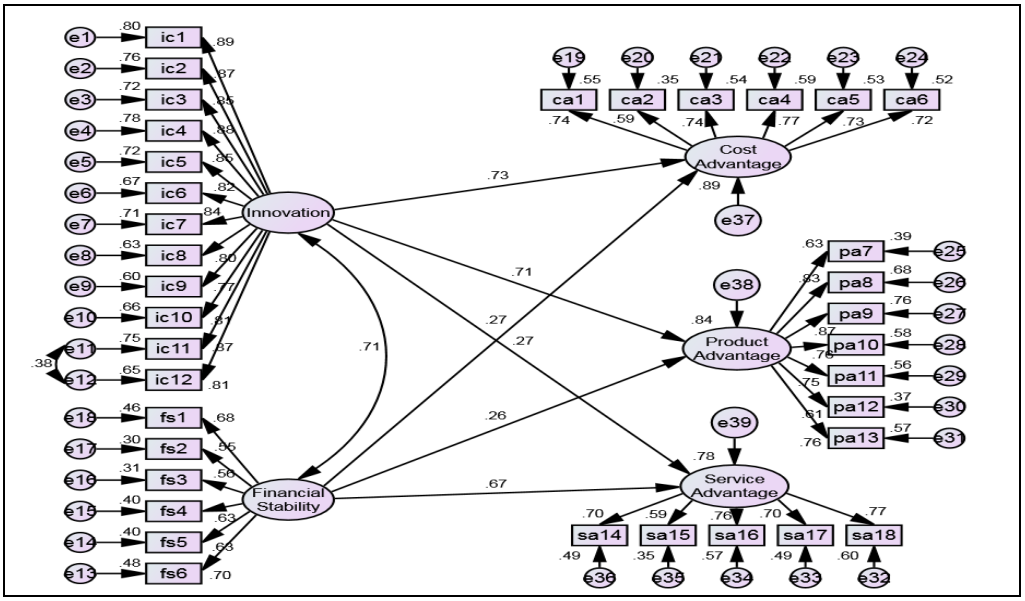

Figure 3: The Standardised Path Coefficients between the Constructs in the Model

Figure 3 shows the standardised path coefficients estimated using the Structural Equation Modelling procedure. The R^2 value for cost advantage, product advantage, and service advantage are 0.89, 0.84, and 0.78, respectively. Figure 3 indicates that 89%, 84%, and 78% of competitive advantage dimensions can be estimated from the exogenous constructs, namely innovation and financial stability.

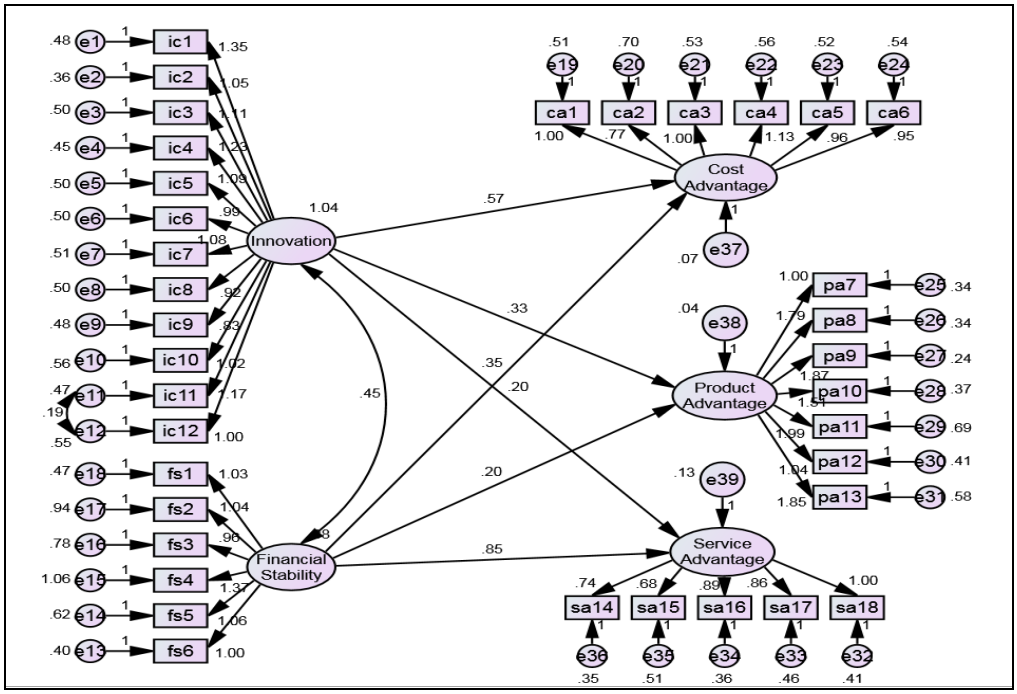

Figure 4: The Regression Path Coefficients of the Model

Table 3: The Regression Path Coefficients and its Significance

				Estimate	S.E.	C.R.	P	Results	Hypothesis
H1:	Cost_Advantage	<---	Innovation	.566	.054	10.521	***	Significant	Supported
H2:	Product_Advantage	<---	Innovation	.330	.036	9.171	***	Significant	Supported
H3:	Service_Advantage	<---	Innovation	.205	.055	3.742	***	Significant	Supported
H4:	Cost_Advantage	<---	Financial_Stability	.353	.075	4.707	***	Significant	Supported
H5:	Product_Advantage	<---	Financial_Stability	.200	.045	4.442	***	Significant	Supported
H6:	Service_Advantage	<---	Financial_Stability	.855	.115	7.462	***	Significant	Supported

Figure 4 shows the regression path coefficients of the measurement model. The results show that there is a significant relationship between innovation and cost advantage, innovation and product advantage, and innovation and service advantage. Therefore, hypotheses H1, H2, and H3 are supported. This also indicates that the core influence of product innovation is significantly positive for cost advantage (β =.566, p <.001), with an R^2 value of 0.73. Besides that, the influence of innovation on product advantage and service advantage are also significantly positive with R^2 values of 0.71 (β =.330, p <.001) and 0.27 (β =.205, p <.001), respectively.

The results also show that there is a significant relationship between financial stability and cost advantage, financial stability and product advantage, and financial stability and service advantage. Therefore the hypotheses H4, H5, and H6 are supported. This indicates that the core influence of financial stability is significantly positive for service advantage (β =.855, p <.001) with an R^2 value of 0.67. Besides that, the influence of financial stability on cost advantage and product advantage are also significantly positive with R^2 values of 0.27 (β =.353, p <.001) and 0.26 (β =.200, p <.001), respectively.

5. DISCUSSIONS

5.1 Innovation

This study proposed innovation as one of the constructs affecting all the components of competitive advantage. This study found that the core influence of innovation is significantly positive on cost advantage (β =.566, p <.001), product advantage (β =.330, p <.001) and service advantage (β =.205, p <.001). These findings support previous findings that determined a significant positive relationship between innovation capability and competitive advantage (Abou-Moghli et al., 2012; Al-Ansari et al., 2013; Aziz & Samad, 2016; Muscio et al., 2010; Ng et al., 2012; Saunila, 2014; Tohidi & Jabbari, 2012; Tudor et al., 2014; Williams & Hare, 2012). The findings also prove that SMEs with low involvement in innovation will be less competitive.

One of the possible explanations of how innovation may moderately influence the competitive advantage dimensions relates to the SMEs' use of technology. The use of technology is one of the innovative strategies to create economic value for a product and could be a source of competitive advantage (Ng et al., 2012; Nguyen et al., 2008). SMEs in Malaysia, however, do

not use much technology apart from speeding up the production process and reducing the costs of production (Avermaete, Viaene, Morgan, & Crawford, 2003; Todtling & Kaufmann, 2001). This low use of technology has also led to low product quality in terms of packaging, short product lifespan, and the product's features that cannot be distinguished from other existing products in the market. As a result, products produced by SMEs are not unique and not attractive enough to penetrate hypermarkets.

Some researchers argue that firms could achieve a competitive advantage by specialisation, exporting, and other means irrespective of their geographic location (Abban, Omta, Aheto, & Scholten, 2013; Bennett & Smith, 2002). In a study related to export performance, SME exporters located in the coastal zone benefited from complete infrastructure and support from technical institutions, and therefore performed better (Abban et al., 2013). This study showed that the geographic location of a business is also a key performance indicator. As highlighted by Steiner and Atterton (2014), SMEs located nearby urban centres may have more access to a larger workforce and customer base and might also enjoy large-scale infrastructure. Meanwhile, an out-dated and underdeveloped infrastructure is also associated with the problem of innovation uptake among rural SMEs (Šoltés & Gavurová, 2014).

In the case of this study, a total of 58.8 per cent of the respondents were SMEs with business geographic locations under the local authority of the District Council. In other words, the majority of the respondents' businesses were geographically located in rural areas. In contrast, universities and research institutions in Malaysia are mostly located in urban areas. Activities involving universities and research institutions, however, are often limited in terms of outreach and financial provisions (Abban et al., 2013). The location of SMEs that are remote could be the cause for their difficulty in establishing collaborations with universities and research institutions to conduct R&D. Plus, some universities specialise in research that is not relevant to SMEs (Todtling & Kaufmann, 2001). Consequently, this will cause a slow down in innovation activities, and thus, reduce competitive advantages for rural SMEs. The Government, therefore, needs to figure out how to eliminate the gap in SMEs and university geographic locations because this has become a barrier to the collaboration between SMEs and universities when it comes to R&D and innovation. Thus, the findings of this study comply with Resource-Based View (RBV) theory (Barney, 1991), which assumes that a firm's success depends on firm-specific resources.

5.2 Financial Stability

In view of the results, all the estimated values were found to be positive and significantly affected competitive advantage. This finding supports the work of several studies that have examined the relationship between financial stability and competitive advantage (Angilella & Mazzù, 2015; Aziz & Samad, 2016; Jebna & Baharudin, 2013; Kumlu, 2014; Sanchez, 2011; Shu-Jen Chen, 2013). The study's finding also reveal that financial stability has a strong magnitude ($\beta = 0.855$, $p < .001$) of impact on service advantage. This suggests that strong financial stability may assist Malaysian SMEs in obtaining a service advantage. This implies that the SMEs' abilities to offer after-sales service, perform delivery service, and hire skilled workers are strongly influenced by financial stability. Again, these findings are in line with the RBV theory (Barney, 1991), i.e. the competitiveness of a firm depends on the resources it possesses, which differentiates it from rival firms. Some researchers (Maktab Koperasi Malaysia, 2010) highlighted that financial stability is crucial for SMEs, especially for the ones that intend to penetrate hypermarkets. Hypermarkets are notorious for issuing late payment, as evidenced by firms that have experience in dealing with them (Maktab Koperasi Malaysia, 2010). Without financial stability, if the hypermarkets are late at making payments during the month, then the SMEs may not be able to get the immediate capital needed to continue production for the following month (Wethyavivorn et al., 2009).

In measuring the financial stability of Malaysian SMEs, the cash flow forecasts indicate the highest factor loading i.e. 0.79. The importance of cash flows and working capital management

is increasingly acknowledged as being related to financial capability in the literature on SMEs (Mazzarol, 2014). A lack of cash flow may lead to difficulties in paying suppliers, which could result in the failure of business. In other words, cash flow is important in supporting SMEs and paying their suppliers, so the business can remain competitive and achieve success (Jebna & Baharudin, 2013). It is critical for SMEs to ensure that the cash flow forecasts are accurate, as this could assist them to plan and organise strategies for the future (Mazzarol, 2014). In summary, this study has met all the research objectives.

6. LIMITATIONS AND RECOMMENDATIONS

The design of this study is cross-sectional in nature. The study aims to investigate the predictive effect of the variables in this study. In light of this, the authors relied on theories and the existing literature on SMEs that suggest the causal direction of various relationships. Even though the cross-sectional research approach used in this study is consistent with that of prior studies (Al-Ansari et al., 2013; Beleska-Spasova, Glaister, & Stride, 2012; Han, Benson, Jinghan Chen, & Zhang, 2012; Kaleka, 2002; Munir, Lim, & Knight, 2011; Singh & Rosli, 2013), this study, however, was not able to conclusively assess the causality in a relationship. Therefore, it would be useful for future researchers to test for causality statistically using a longitudinal design approach so that a cause-and-effect relationship might be established.

This study has laid the groundwork for on-going research in this field. Given that this study was based on SMEs in Malaysia, therefore, a replication of such a study in specific industries would help establish the generalisability of the findings. Further research efforts are required to compare the magnitude strength of impact of innovation and financial stability on the competitive advantage dimensions in other countries. Another objective would be to determine whether the findings of this study could reveal some commonalities in the competitive advantage of SMEs in other countries. Comparative studies are also required to identify innovation patterns that are either country-specific or generalisable (Avermaete et al., 2003). It is also recommended that future comparative studies incorporate a larger and more comprehensive sample from countries that have a larger market.

7. CONCLUSION

This study differs from previous competitive advantage studies in some ways. First, this study developed a comprehensive framework of the effect of innovation and financial stability on each component of competitive advantage i.e. cost, product, and service advantage, targeting SMEs in Malaysia. Therefore, the findings of this study will be a rich source for interpreting and explaining the construction of meaningful theory for the study of competitive advantage dimensions in the future.

Second, in addition to the theoretical implications, the managerial implications of the research findings could provide new insights for SMEs in Malaysia. SME companies pursuing a competitive advantage should consider maintaining superior financial stability. SMEs also need to foster good relationships with other entrepreneurs in the same industry to share information on how to obtain financial support from Governmental agencies. Financial assistance and grants may help SMEs to alleviate their financial constraints, shorten the time taken to market, promote innovative activities, as well as help them gain the confidence to embark on new activities (Macdonald, Assimakopoulos, & Anderson, 2007).

Third, this study provides some useful insights for relevant authorities such as the Ministry of Agriculture, The Federal Land Development Authority (FELDA), Majlis Amanah Rakyat (MARA), and Rubber Industry Smallholders Development Authority (RISDA) etc. Policy-makers, therefore, could adopt the findings of this study, in looking for more realistic ways to

maintain a competitive advantage for SMEs. In view of the core recommendations of this study, policy-makers should address the improvement of SME capabilities regarding innovation and financial stability by increasing their access to information coupled with enhancing the quality and amount of training and guidance provided.

References

Abban, R., Omta, S. W. F. (Onno), Aheto, J. B. K., & Scholten, V. E. (2013). Connecting the dots: A multiple case study of the network relationships of small and medium-sized enterprises (SMEs) in the non-traditional agricultural export (NTAE). *African Journal of Economic and Management Studies*, *4*(1), 74–94.

Abdullah, F., Hamali, J., Deen, A. R., Saban, G., & Abdurahman, A. Z. A. (2009). Developing a framework of success of Bumiputera entrepreneurs. *Journal of Enterprising Communities: People and Places in the Global Economy*, *3*(1), 8–24.

Abou-Moghli, A. A., Abdallah, G. M. Al, & Muala, A. Al. (2012). Impact of innovation on realizing competitive advantage in banking sector in Jordan. *American Academic & Scholarly Research Journal*, *4*(5).

Al-Ansari, Y., Pervan, S., & Xu, J. (2013). Innovation and business performance of SMEs: the case of Dubai. *Education, Business and Society: Contemporary Middle Eastern Issues*, *6*(3/4), 162–180.

Angilella, S., & Mazzù, S. (2015). The Financing of Innovative SMEs: a multicriteria credit rating model. *European Journal of Operational Research*, *244*, 540–554.

Avermaete, T., Viaene, J., Morgan, E. J., & Crawford, N. (2003). Determinants of innovation in small food firms. *European Journal of Innovation Management*, *6*(1), 8–17.

Aziz, N. N. A., & Samad, S. (2016). Innovation and Competitive Advantage: Moderating Effects of Firm Age in Foods Manufacturing SMEs in Malaysia. *Procedia Economics and Finance*, *35*(October 2015), 256–266.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120.

Beleska-Spasova, E., Glaister, K. W., & Stride, C. (2012). Resource determinants of strategy and performance: The case of British exporters. *Journal of World Business*, *47*(4), 635–647.

Bennett, R. J., & Smith, C. (2002). Competitive conditions, competitive advantage and the location of SMEs. *Journal of Small Business and Enterprise Development*, *9*(1), 73–86.

Bharadwaj, S. G., Varadarajan, P. R., & Fahy, J. (1993). Sustainable competitive advantage in service industries : A conceptual model and research propositions. *Journal of Marketing*, *57*(October), 83–99.

Büyükbalcı, P. ına. (2012). Sustaining firm performance through innovation oriented value investments. *Procedia - Social and Behavioral Sciences*, *41*, 450–455.

Dorobat, Carmen, E., & Topan, M.-V. (2015). Entrepreneurship and Comparative Advantage. *Journal of Entrepreneurship*, *24*(1), 1–16.

Feng, T., Sun, L., & Zhang, Y. (2010). The effects of customer and supplier involvement on

competitive advantage: An empirical study in China. *Industrial Marketing Management*, *39*(8), 1384–1394.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, *26*(2), 106–121.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, *19*(2), 139–152.

Hamdani, J., & Wirawan, C. (2012). Open Innovation Implementation to Sustain Indonesian SMEs. *Procedia Economics and Finance*, *4*(Icsmed), 223–233.

Han, L., Benson, A., Jinghan Chen, J., & Zhang, S. (2012). The use and impacts of bank support on UK small and medium-sized enterprises. *International Small Business Journal*.

Hassan, T. M. R. T., Yaacob, M. R., & Abdullatiff, N. K. (2014). Sustaining SMEs wood-based product manufacturing through best practices – The case of indigenous entrepreneurs in Kelantan. *Procedia - Social and Behavioral Sciences*, *115*(Iicies 2013), 221–234.

Jebna, A. K. K., & Baharudin, A. S. (2013). Factors Affecting Small and Medium Enterprises Success : An Exploratory. *Jurnal Teknologi*, *64*(3), 69–72.

Kaleka, A. (2002). Resources and capabilities driving competitive advantage in export markets: guidelines for industrial exporters. *Industrial Marketing Management*.

Kasim, A. (2009). Managerial attitudes towards environmental management amo
ng small and medium hotels in Kuala Lumpur. *Journal of Sustainable Tourism*, *17*(6), 709–725.
Keasey, K., Pindado, J., & Rodrigues, L. (2014). The determinants of the costs of financial distress in SMEs. *International Small Business Journal*, -(April), 1–20.

Khalique, M. (2011). Do Malaysia and Pakistan are suitable for a comparative study of SMEs : an intellectual capital perspective ?, 98–107.

Khan, S. (2015). Impact of sources of finance on the growth of SMEs: evidence from Pakistan. *Decision*, *42*(1), 3–10.

Kogid, M., Mansur, K., Mulok, D., & Akmadia, W. (2009). Industri Kecil dan Sederhana (IKS) dan pinjaman kewangan di Sabah: Satu analisis empirikal. *Prosiding PERKIM IV*, *2*, 185–198.

Kumlu, Ö. (2014). The Effect of Intangible Resources and Competitive Strategies on the Export Performance of Small and Medium Sized Enterprises. *Procedia - Social and Behavioral Sciences*, *150*, 24–34.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Subba Rao, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, *34*(2), 107−124.

Ling-yee, L., & Ogunmokun, G. O. (1998). Effect of Export Financing Resources and Supply-Chain Skills on Export Competitive Advantages: Implications for Superior Export Performance. *Journal of World Business*, *36*(3), 260–279.

Macdonald, S., Assimakopoulos, D., & Anderson, P. (2007). Education and Training for Innovation in SMEs: A Tale of Exploitation. *International Small Business Journal*, *25*(1), 77–95.

Maktab Koperasi Malaysia. (2010). *Penerimaan Produk Bumiputera di Hypermarket*. (H. A. Hassan & A. D. Awang, Eds.). Pusat Pengurusan Penyelidikan dan Inovasi.

Marlow, S., & Strange, A. (1994). Female Entrepreneurs: Success by Whose Standards? In *Women in Management: A Developing Presence* (pp. 172–184). London: Routledge.

Mazzarol, T. (2014). Financial Management in SMEs. *Small Enterprise Research*, *21*(1), 2–13.
Moghavvemi, S. (2012). Competitive Advantages Through It Innovation Adoption By Smes. *Social Technologies*, *2*(1), 24–39.

Munir, A., Lim, M. K., & Knight, L. (2011). Sustaining competitive advantage in SMEs. *Procedia - Social and Behavioral Sciences*, *25*(2011), 408–412.

Muscio, A., Nardone, G., & Dottore, A. (2010). Understanding demand for innovation in the food industry. *Measuring Business Excellence*, *14*(4), 35–48.

Ng, H. S., Mui, D., & Kee, H. (2012). Development of Intangible Factors for SME Success in a Developing Country. *International Journal of Academic Research in Business and Social Sciences*, *2*(12), 198–213.
Nguyen, A. N., Quang Pham, N., Nguyen, C. D., & Nguyen, N. D. (2008). Innovation and exports in Vietnam's SME sector. *The European Journal of Development Research*, *20*(2), 262–280.

Piercy, N. F., Anna, K., & Katsikeas, C. S. (1998). Sources of Competitive Advantage in High performing Exporting Companies. *Journal of World Business*, *33*(4), 378 – 393.

Popescu, N. E. (2014). Entrepreneurship and SMEs Innovation in Romania. *Procedia Economics and Finance*, *16*, 512–520.

Rahman, M. N. A., Wasilan, H., Deros, B. M., & Saibani, N. (2011). Halangan kepada Keberkesanan Pelaksanaan Rantaian Bekalan di Syarikat Pembuatan Perindustrian Kecil dan Sederhana. *Jurnal Teknologi*, *56*, 81–98.

Salikin, N., Wahab, N. A., & Muhammad, I. (2014). Strengths and Weaknesses among Malaysian SMEs: Financial Management Perspectives. *Procedia - Social and Behavioral Sciences*, *129*, 334–340.

Sanchez, J. (2011). The influence of entrepreneurial competencies on small firm performance. *Revista Latinoamericana de Psicologia*, *44*(2), 165–177.

Saunila, M. (2014). Innovation capability for SME success: perspectives of financial and operational performance. *Journal of Advances in Management Research*, *11*(2), 163–175.

Shu-Jen Chen. (2013). *The effects of social networks and a global mindset on Taiwanese manufacturing SMEs ' ability to form alliances to increase international and financial performance*. Alliant International University.

Singh, H., & Rosli, M. (2013). Determining the effect of export market orientation on export performance of small and medium enterprises in Malaysia: An exploratory study. *Advances in Management & Applied Economics*, *3*(6), 223–232.

SME Corp. (2012). *Summary SME Masterplan 2012-2020*. Kuala Lumpur, Malaysia.

Šoltés, V., & Gavurová, B. (2014). Innovation policy as the main accelerator of increasing the competitiveness of small and medium-sized enterprises in. *Procedia Economics and Finance*,

15(14), 1478–1485.

Steiner, a., & Atterton, J. (2014). The contribution of rural businesses to community resilience. *Local Economy*, *29*(3), 228–244.

Todtling, F., & Kaufmann, A. (2001). The Role of the Region for Innovation Activities of SMEs. *European Urban and Regional Studies*, *8*(3), 203–215.

Tohidi, H., & Jabbari, M. M. (2012). Providing a Framework for Measuring Innovation within Companies. *Procedia Technology*, *1*, 583–585.
Tudor, A. T., Zaharie, M., & Osoian, C. (2014). Innovation Development Needs in Manufacturing Companies. *Procedia Technology*, *12*, 505–510.

Utami, R. M., & Lantu, D. C. (2014). Development Competitiveness Model for Small-Medium Enterprises among the Creative Industry in Bandung. *Procedia - Social and Behavioral Sciences*, *115*(Iicies 2013), 305–323.

Wai, C. F., Hafiz, N., & Yew, K. (2013). Overview on SMEs Family-run Local Coffee Shop in Malaysia : Challenges and Determinants of Survival. *Jurnal Teknologi*, *2*, 103–107.

Wethyavivorn, P., Charoenngam, C., & Teerajetgul, W. (2009). Strategic Assets Driving Organizational Capabilities of Thai Construction Firms. *Journal of Construction Engineering and Management*, (November), 1222–1232.

Williams, D., & Hare, L. (2012). Competitiveness of Small Hotels in Jamaica: An Exploratory Analysis.: EBSCOhost.

Yu, X., Yan, J., & Assimakopoulos, D. (2015). Case analysis of imitative innovation in Chinese manufacturing SMEs: Products, features, barriers and competences for transition. *International Journal of Information Management*, *35*(4), 520–525.

Zain, M., & Kassim, N. M. (2012). The Influence of Internal Environment and Continuous Improvements on Firms Competitiveness and Performance. *Procedia - Social and Behavioral Sciences*, *65*(ICIBSoS), 26–32.

Zainudin, A. (2012). *Structural Equation Modeling using AMOS Graphic.* Selangor, Malaysia: UiTM Press.

Zainudin, A. (2014). *A Handbook on Structural Equation Modeling.* Selangor, Malaysia: MPWS Rich Resources.

Appendix

Table 4: Items used in the questionnaires

Innovation	My company has launched at least three new products (ic1). My company has upgraded the quality of at least three kinds of products (ic2). We have added at least three sales agencies inside or outside of our province (ic3). We have added at least three branches inside or outside of our province (ic4). We have introduced at least three new processes in our company (ic5). To what extent has your company used new technology to perform operations and has it been applied in production? (ic6). To what extent has your company used new technology for packing its products? (ic7). To what extent has your company used new marketing methods to sell its

	products? (ic8). How often have you participated in training to learn about new technology? (ic9). How often have your staffs participated in training to learn about new technology? (ic10). How often has your company allocated a specific budget for research projects? (ic11). To what extent has the company's management welcomed and supported research projects? (ic12).
Financial Stability	My company has a good credit record in local banks (fs1). We obtain financial support from local banks to make loans (fs2). We have numerous physical assets (e.g. real estate) (fs3). We use our physical assets as collateral to obtain loans from local banks (fs4). We can repay our loan to all creditors within the time frame required (fs5). The cash flow forecast for our company is always accurate (fs6).
Cost Advantage	Our cost of production is always lower than that of our main competitor (ca1). We are looking at a lower cost of procurement of raw materials (ca2). Our utility costs are always lower than our competitors (ca4). We have low transportation costs (ca3). Our prices are always lower compared to our main competitors (ca5). We offer better credit facilities to our loyal customers compared to our main competitor (ca6).
Product Advantage	Our customers often praise the quality of our products (pa7). Our customers are firmly convinced that we offer a very good quality product (pa12). Our customers often praise the quality of our product packaging (pa8). Our customers often praise the quality of our product labelling (pa9). The quality of our products is better than that of our major competitors (pa10). Our products have a long lifespan of 6 months to 1 year (pa11). We offer more diversified products in the market compared to our competitors (pa13).
Service Advantage	Our clients praise our product-ordering facilities (sa14). We offer after-sales service at all times (sa15). Our delivery service is always right on time (sa16) We have very skilful employees (sa17). We can handle extra orders from customers in any circumstances (sa18).