



7th International Economics & Business Management Conference, 5th & 6th October 2015

Innovation and Competitive Advantage: Moderating Effects of Firm Age in Foods Manufacturing SMEs in Malaysia

Nurul Nadia Abd Aziz^a, Sarminah Samad^{b*}

^a*Faculty of Business Management, Universiti Teknologi MARA Pahang,
26400 Bandar Jengka, Pahang*

^b*Arshad Ayub Graduate Business School, Universiti Teknologi MARA, Malaysia,
40450 Shah Alam, Selangor, Malaysia*

Abstract

This paper aims to examine the influence of innovation on competitive advantage in foods manufacturing SMEs in Malaysia and the moderating effects of firm age on innovation-competitive advantage relationship. Given the correlational nature of research, the researchers adopted a random sampling technique in Malaysian foods manufacturing SMEs. Mailed structured questionnaires were employed for the collected 220 foods manufacturing SMEs. Both descriptive and inferential statistics were used to answer the objectives and hypotheses of the study. Finding of the study revealed that innovation has a strong positive impact on the competitive advantage, in which innovation contributes 73.5 percent variance in competitive advantage. The results indicate that SMEs should invest in innovation to gain competitive advantage. The study also found the moderating effect of firm age on the influence of innovation on competitive advantage. The study suggests a framework for analyzing the impact of innovation on competitive advantage to be applied in other settings of Malaysian SMEs. The findings of this study may be used as a guideline for entrepreneurs to establish network with research organization and universities for innovative activities or program which ultimately may gain competitive advantage in the marketplace. This study contributed to the literature by empirically investigating the effect of innovation on competitive advantage, specifically in foods manufacturing SMEs in Malaysia. Findings and implications of the study are also discussed in this paper.

© 2016 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-reviewed under responsibility of Universiti Tenaga Nasional

Keywords: Innovation; Competitive Advantage; Firm Age; Foods Manufacturing SMEs; Malaysia

* Corresponding author. Tel.: +06-03-5544-4668; fax: +6-03-5544-3170
E-mail address: sarminasamad@gmail.com

1. Introduction

Recognizing the importance of SMEs to economic growth and their ability to provide job opportunities to the society, especially in rural areas (Abdullah & Mustapha, 2009; Ismail, 2013; Mohamad, Rashed, & Rahman, 2008), many researchers have studied the success factors and failure factors of SMEs to gain competitive advantage. Some researchers suggest that the key determinant of SMEs to gain competitive advantage is the ability of SMEs to develop unique products, and their flexibility in adopting new technology (Williams & Hare, 2012). It implies that the SMEs should involve in innovation in order to gain competitive advantage in marketplace. The other researchers suggest that the continuity of innovation activities (Bayarçelik, Taşel, & Apak, 2014; Higon, 2011; Nausheen, 2007) were constrained due to the smallness of the firms. Small firms are facing barriers to innovate such as lack of internal funds, inadequate managerial skills, lack of labor skills, lack of knowledge and lack of market access (Dada & Fogg, 2014; Mohd Amin, 2001; Nausheen, 2007; Wang & Costello, 2009).

Previous studies related to innovation and competitive advantage, however, mainly focusing on SMEs engaged in export trade and internationalization (Ismail, Domil, & Isa, 2014; Ismail, 2013; Kaleka, 2002). These studies have been carried out within medium- and large-sized firms, in which these kinds of firms have strong financial resources and equipped with sufficient infrastructure to support innovation activities. However, only a limited number of empirical studies (Avermaete, Viaene, Morgan, & Crawford, 2003; Bayarçelik et al., 2014) have focused on innovation-competitive advantage relationship in small firms despite their growing contribution. In Malaysia, studies on the influence of innovation on competitive advantage have been conducted in hotel industry (Asree et al., 2010) and wood industry (Hassan, Yaacob, & Abdullatiff, 2014). The study of the relationship between innovation and competitive advantage in foods manufacturing SMEs, however, is still lacking even though this industry has contributed RM16,729 million to Malaysian GDP in year 2012.

Despite knowledge of the effect of innovation on SMEs' competitive advantage, the more recent research suggests that younger firms are more likely to innovate, thus give even more benefits for competitiveness (Higon, 2011). This researcher suggested that young firms behave more proactive, flexible and aggressive. Other quantitative studies, however, report conflicting findings that the firm age did not give significant effects on the relationship between innovation and competitive advantage (Harris, Rogers & Siouclis, 2003; Zhang, 2006). On the basis of these empirical studies, it shows that there are mixed findings related to the moderating effect of firm age on the innovation-competitiveness relationship. Therefore, the current study intends to examine the moderating effect of firm age on innovation-competitiveness relationship in the context of foods manufacturing SMEs in Malaysia.

As the research related to the influence of innovation on competitive advantage has never been done in the foods manufacturing SMEs and research on the impact of moderator (i.e. the firm age) on such relationship is even rarer, therefore, this study attempts to fulfill the research gaps. This study aims to explore the influence of innovative on competitive advantage in foods manufacturing SMEs in Malaysia and to examine the moderating effect of firm age on such relationship. The research questions at the heart of this study are: Is there a positive effect of innovation on competitive advantage? To what extent firm age may moderates the influence of innovation on competitive advantage? Understanding these issues will shed light in finding answer to whom innovation support should be emphasized, either young or old SMEs. Findings of this study may help policy makers to channel the funds to the appropriate target groups to ensure a profitable return on investment in the future.

To achieve the research objectives, the remainder of this paper is structured as follows: The next section will provide an overview of the relevant literature and concepts that will provide the theoretical lens through which the research is being viewed. The subsequent section of the paper focuses on the research method, findings and ends with a discussion. The implication significance, the limitations and recommendation for future research are then examined. The last section of this paper presents the conclusions.

2. Literature Review

Small and Medium Enterprises is defined as manufacturing enterprises or companies providing services related to manufacturing with sales turnover not exceeding RM50 million and employs full-time workers not exceeding 200

people (SME Corp. Malaysia, 2013). SMEs were described as “... (1) an engine of innovation and growth and (2) they help reduce poverty because they are labour-intensive and thus stimulate job growth, but (3) they are constrained by institutional and market failures” (Beck, 2013, p.23).

Theory of Resource-Based View (henceforth RBV) proposed that “... all assets, capabilities, characteristics of the firm, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness” (Barney, 1991, p.101). The RBV relies on the belief that competitive advantage is not dependent on market and industry’s structural characteristics, but it depends on a superior internal resources in a firm (Kumlu, 2014; Soh, 2005). A company is said to have a competitive advantage if it is able to offer quality products at lower prices than their competitors, and able to offer the best services. In sum, the idea of resources was at the center of this theory that assumes the need of resources to have unique and durable characteristics to allow organizations to achieve their competitive advantage. RBV theory also suggests that the resources owned by a firm should be differentiated from the rivals and difficult to be imitated and substituted with others.

Some researcher suggest that SMEs can get even more benefit if they develop, communicate, embrace and explore the innovation orientation (Saunila, 2014). Innovation is defined as a mental process that led to the creation of a new phenomenon in the form of a new material or a new service or new techniques (Abou-Moghli, Abdallah, & Muala, 2012). According to Avermaete et al. (2003), the types of innovation that are suitable for SMEs include: product innovation (pertaining to goods, services and ideas); organizational innovation (based on marketing, purchasing and sales, administration, management and staff policy); and market innovation (as pertains to expansion of territorial areas and penetrate of market segments). This is because the implementation of innovation in SMEs is often generated by the informal search process, informal knowledge and intangible assets (Muscio, Nardone, & Dottore, 2010). Although SMEs are more flexible in innovation, especially in response to changes in customers’ need and the environmental condition (Higon, 2011), they have no ability to innovate compared to the large firms. The possible reasons are because the large firms have larger availability of resources and capabilities, thus, provide better place to develop and exploit new technology as well as have ability to benefit from economies of scale (Higon, 2011). Large firms also may enjoy more economies of scale and scope, utilizing more management experience, and have access to various resources than small firms, and hence they perform better (Arend, 2006).

There are a few researchers that focus on the study of innovation in the small foods firms (Avermaete et al., 2003; Muscio et al., 2010). Most SMEs in the foods industry uses low technology with the main purposes to speed up the production process and to reduce the costs of production (Todtling & Kaufmann, 2001). In a review of literature, Avermaete et al. (2003) stressed that innovation based on R & D is rare in small foods firms because of the shortage of skills and knowledge to invest in R & D activities. Although studies on innovation in the food industry have been carried out abroad, but less research has been done on the impact of innovation on competitive advantage among the foods manufacturing SMEs in Malaysia. This is in line with the RBV theory (Barney, 1991) which assumes that the success of a firm depends on the firm-specific resources.

Avermaete and colleagues (2003) highlight that although small foods firms are limited in terms of investment and research facilities, innovation seems to be undertaken continuously. This reflects the importance of innovation in the vast majority of small foods firms. Zhang (2006) view this kind of situation as commitment to innovation, which is said to have a strong relationship with the business-owner’s orientation and not to firm age or size. His findings has supported the findings of Hariss et al. (2003), who found that the age of the firm does not significantly affect the relationship between innovation and competitive advantage. A more recent research conducted by Higon (2011), however, found a contradictory result, in which the firm age has a significant impact on the effect of innovation on competitive advantage. The mixed results have been calling for further investigation to examine the moderating effects of firm age on the relationship between innovation and competitive advantage in foods manufacturing SMEs in Malaysia. In short, this study is underpinned by RBV theory, in which this study suggests that resources owned by the foods manufacturing SMEs are expected to influence the competitive advantage of SMEs. The basis of the framework is the idea that SMEs have to concentrate on innovation in order to gain competitive advantage. In order to reach the research aims, the following hypotheses were developed:

H1: There is a positive effect of innovations on competitive advantage.

H2: Firms age moderates the influence of innovation on competitive advantage.

3. Research Framework

On the basis of the above mentioned literature review, a research model is developed to examine the influence of innovation on competitive advantage and the moderating effect of firm age on such relationship. Figure 1 shows the conceptual framework for the current study.

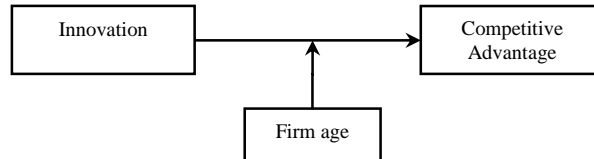


Figure 1: Conceptual Framework

The current study proposes a conceptual framework for a specific model designed to explain the link between innovation and competitive advantage. The current research lays out a conceptual framework designed to analyze the ability of foods manufacturing SMEs in terms of innovation. This framework is then used to analyze how this variable may impact competitive advantage. Figure 1, which illustrates the essential constructs included in this study, will serve to guide subsequent discussions. Relying on the literature review, the current research proposes that innovation will improve competitive advantage among foods manufacturing SMEs in Malaysia.

4. Research Design and Data Collection

Since this study was correlational, thus quantitative methodology was adopted. The population of this study was foods manufacturing SMEs in Malaysia. A set of questionnaire was used as a main instrument of this study. The questionnaire incorporated sections dealing with: demographic details, measures of innovation and measures of competitive advantage. The final version of the questionnaire comprised 30 statements using a 5 point Likert scale.

The actual survey was carried out between October and December 2014 which involved 250 entrepreneurs in Peninsular Malaysia including Sabah and Sarawak. The samples were selected by random sampling technique. Of the 250 enterprises in our sample, 227 completed questionnaires were returned. However, seven cases had to be excluded from further analysis due to excessive missing data. Therefore, the present sample comprised of 220 entrepreneurs in foods manufacturing SMEs in Malaysia resulting in a response rate of 88 percent. The number of respondents of this study is sufficient to carry out the analysis of SEM using AMOS version 21.0.

A set of questionnaire were sent to the respondents through registered mail. The self-administered questionnaire was chosen as the mode for data collection. Respondents were given one week to complete the questionnaire. After one week, telephone calls were made to remind the respondents that the questionnaire should be sent out to the researchers. Respondents who do not yet complete the questionnaire were given another additional week to complete it.

5. Respondents Profile

Sample of this study is based on 220 entrepreneurs in foods manufacturing SMEs in Malaysia. Gender distribution shows the dominance of female respondents. Among the entrepreneurs, 38.8 percent were male and 62.2 percent were female. 19.2 percent respondents were single, whereas 80.8 percent were married. 61.4 percent of the respondents were aged below than 40 years old and 38.6 percent belonged in the age group of more than 40 years

old. A total of 50.9 percent of respondents are in the category of firms age less than 5 years, meanwhile 49.1 of respondents were in the category of firm age for more than 5 years. Regarding education, most respondents were educated to either certificate levels (14.7 percent) or diploma levels (11.2 percent), with the highest proportion (43.5 percent) educated to secondary school. In terms of the distribution of respondents by state, 23.1 percent of respondents were from the state of Johor, 17.6 percent of Pahang and 14.2 percent of Kedah. The fewest respondents were from the state of Sarawak (2.3 percent).

6. Results

This section presents and discusses about the statistical analysis of the data obtained from this study. The result of Cronbach’s Alpha values ranging from 0.906 to 0.913 fulfils the minimum requirement level of reliability. The values of Cronbach’s Alpha shows in Table 1 indicate that the measures used in this study are good and reliable.

Table 1: The Summary of Cronbach’s Alpha Results for the Measurement Model

Constructs	No. of items	Cronbach’s Alpha > 0.70
Innovation Capability	12	0.906
Competitive Advantage	18	0.913

6.1 Confirmation Factor Analysis

After conducting the reliability analysis of the instrument, the confirmatory factor analysis was performed to assess the uni-dimensionality and validity of the measurement model. The result of the factor analyses using SEM/AMOS is shown in Figure 2 and Table 2.

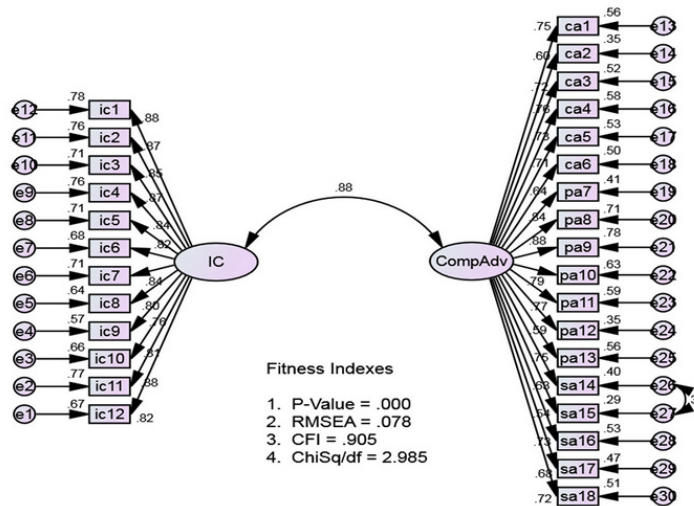


Figure 2: The Results CFA Show the Factor Loading for items

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

	Name of Index	Design range of values for a good fit	Index Value	Comment
Absolute fit	RMSEA	< 0.08	0.078	Fitness level is achieved
Incremental fit	CFI	> 0.90	0.905	Fitness level is achieved
Parsimonious fit	ChiSq/df	< 3.00	2.985	Fitness level is achieved

Figure 2 and Table 2 illustrate the absolute fit, incremental fit and parsimonious fit which achieved the required level with RMSEA < 0.08, CFI > 0.90, and Chisq/df < 3.00 (Zainudin, 2012). Therefore, uni-dimensionality was achieved. Further the calculations yield the results as shown in Table 3.

Table 3: The CFA Results for the Measurement Model

Construct	Cronbach's Alpha	Average Variance Extracted (AVE > 0.50)	Composite Reliability (CR > 0.60)
Innovation	0.906	0.985	0.970
Competitive Advantage	0.913	0.961	0.891

Table 3 shows the evidence of the reliability of the scale which represents the construct reliability (CR) and average variance extracted (AVE) scores of the different factors obtained. Construct reliability of both latent constructs are greater than the acceptable limit of 0.60, (Zainudin, 2014). The AVE for both constructs is greater than acceptable limit of 0.5, (Zainudin, 2014) which further supports the convergent validity of the constructs. This results show the internal consistency of the instrument used in the current study.

6.2 Path Analysis of the Model and Results: Structural Equation Modelling

After the issues of uni-dimensionality, validity and reliability of the latent constructs have been addressed, the constructs were modeled into structural model for analysis using SEM. The basic model as shown in Figure 3 has proposed as the first research objective which is to determine the influence of innovation on competitive advantage. Therefore, the following analysis was conducted to answer the first following research hypothesis:

Hypothesis 1: *There is significant influence of innovation on competitive advantage*

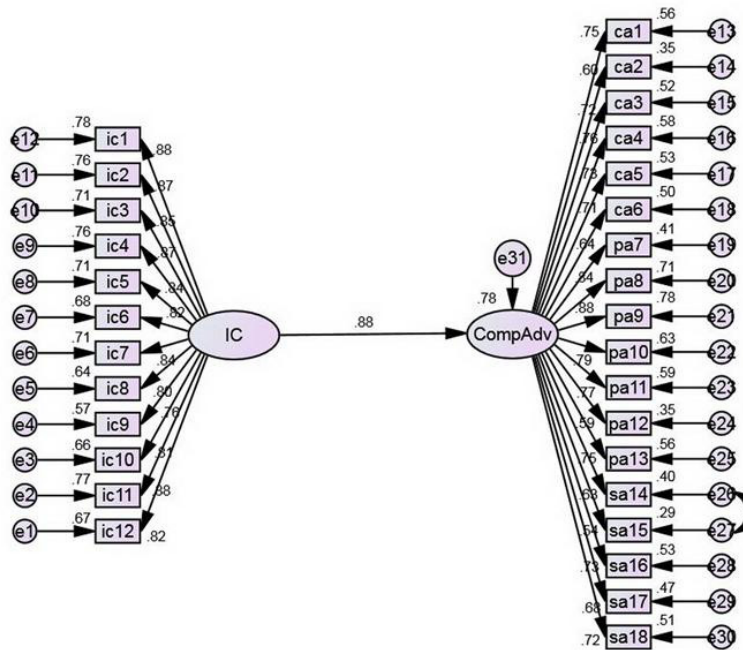


Figure 3: The Standardized Path Coefficients between Constructs in the Model

Figure 3 indicates the structural model for the path of interest to be tested in the study, while Figure 4 shows the standardized path coefficients estimated by the structural equation modelling procedure. The Coefficient of Determination (R^2) is 0.78 (Figure 3), which indicates that 78% of the competitive advantage can be estimated by the exogenous construct namely innovation. The next step is to perform regression analysis and the results are as in Table 4.

Table 4: The Regression Path Coefficients and its Significance

		Estimate	S.E.	C.R.	P	Result
Competitive advantage	<--- Innovation	.735	.052	14.131	***	Significant

Note: *** $p < 0.001$, $N = 220$.

Table 4 shows the regression path coefficient and its significance. The results indicate that when innovation goes up by 1, competitive advantage goes up by 0.735. The regression weight estimate .735, has a standard error of about .052. Dividing the regression weight estimate by the estimate of its standard error gives $z = .735/.052 = 14.131$. In other words, the regression weight estimate is 14.131 standard errors above zero. The probability of getting a critical ratio as large as 14.131 in absolute value is less than 0.001. In other words, the regression weight for innovation capability in the prediction of competitive advantage is significantly different from zero at the 0.001 level (two-tailed). In other words, the above hypothesis is supported.

Table 5: The Summary of Hypotheses Testing and Result

	Research Hypothesis	Estimates	Results
H1:	There is a positive effect of innovations on competitive advantage.	.735***	Supported

The result in Table 5 shows that there is a significant influence of innovation on competitive advantage. This indicates that the core influence of innovation on competitive advantage is significantly positive ($\beta = .735, p < .001$) with R^2 value is 0.78 (Figure 3). The finding supports hypothesis one which hypothesized that there is an effect of innovation on competitive advantage.

6.3 Testing of Moderation Effect

The study moves further into the second objective, which is to test the moderating effects of firm age.

Hypothesis 2: *Firms age moderates the influence of innovation on competitive advantage.*

To test the moderating effects of firm age, the data was split into two groups and renamed as “Young Firms Group” and “Old Firms Group”. For the purpose of this study, the young firms group is defined as SMEs with the firm age less than 5 years. Whereas, the old firms group is defined as SMEs with the firm age more than 5 years. Table 6a, 6b and 6c shows the moderating test of firm age on innovation capability for old firm group, while Table 7a, 7b and 7c shows the moderating test of firm age on innovation capability for young firm group.

Table 6a: The Chi-Square Value and DF for **Constrained Model**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	112	1670.972	1064	.000	1.570
Saturated model	1176	.000	0		
Independence model	48	2314.320	1128	.000	2.052

Table 6b: The Chi-Square Value and DF for **Unconstrained Model**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	114	1667.020	1062	.000	1.570
Saturated model	1176	.000	0		
Independence model	48	2314.320	1128	.000	2.052

Table 6c: The Moderating Testing for **Old Firm Group** Data on Innovation

	Constrained Model	Unconstrained Model	Chi-Square Difference	Result on Moderation	Result on Hypothesis
Chi-Square	1670.972	1667.020	3.952	Not Significant	Not Supported
DF	1064	1062	2		

The difference in Chi-Square value is 3.952 (1670.972 – 1667.020), meanwhile the difference in Degree of Freedom is 1064 – 1062 = 2. For the test to be significant, the difference in Chi-Square value must be higher than the value of Chi-Square with 2 degree of Freedom, which is 5.99.

Table 7a: The Chi-Square Value and DF for **Constrained Model**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	112	2234.936	1064	.000	2.101
Saturated model	1176	.000	0		
Independence model	48	4574.639	1128	.000	4.056

Table 7b: The Chi-Square Value and DF for **Unconstrained Model**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	115	2075.406	1061	.000	1.956
Saturated model	1176	.000	0		
Independence model	48	4574.639	1128	.000	4.056

Table 7c: The Moderating Testing for **Young Firm Group** Data on Innovation

	Constrained Model	Unconstrained Model	Chi-Square Difference	Result on Moderation	Result on Hypothesis
Chi-Square	2234.936	2075.406	159.53	Significant	Supported
DF	1064	1061	3		

The difference in Chi-Square value is 159.53 (2234.936 – 2075.406), meanwhile the difference in Degree of Freedom is 1064 – 1061 = 3. For the test to be significant, the difference in Chi-Square value must be higher than the value of Chi-Square with 3 degree of Freedom, which is 7.81. Since the moderating testing result for old firm group is not significant, while the moderating testing result for young firm group is significant, then **full moderation** occurs.

Since the full moderation effect is establish in non-parametric testing, the study was interested to determine in which group (old firms or young firms) the relationship between innovation and competitive advantage is more pronounced using parametric testing. Table 8a and 8b shows the standardized beta estimates for old firm and young firm groups in path innovation to competitive advantage.

Table 8a: The Effect of Innovation on Competitive Advantage is Not Significant for **Old Firm Group**

			Estimate	S.E.	C.R.	P	Result
Competitive advantage	<---	Innovation	.477	.467	1.020	.308	Not Significant

Table 8b: The Effect of Innovation on Competitive Advantage is Significant for **Young Firm Group**

			Estimate	S.E.	C.R.	P	Result
Competitive advantage	<---	Innovation	.823	.195	4.224	***	Significant at .05

Table 8a shows that the standardized parameter estimate for “Old Firms Group” is 0.477 (P = .308), while Table 8b shows the same estimate for “Young Firms Group” is 0.823 (P = .000). The results conclude that the effect of innovation on competitive advantage is more pronounced in “Young Firms Group” compare to “Old Firms Group”. Since the standardized estimate for old firms is not significant, and the standardized estimate for young firms is significant, thus, the type of moderation is **full moderation**. In other words, hypothesis 2 is supported.

7. Discussion and recommendation

Although the topic of competitive advantage has been an area of considerable research in the SMEs literature, very little research has been done to identify capabilities needed to build up competitive advantage in foods manufacturing SMEs, particularly in Malaysia. This study therefore examined the effect of innovation on competitive advantage in order to identify the resource base needed to build up competitive advantage. On the basis of the results in Table 4, the estimate value was found to be positive and significantly affect the competitive advantage ($\beta = 0.735, p < .001$). Findings from this research support the hypothesized effect of innovation on competitive advantage. In other words, innovation contributes 73.5 percent to the changes in competitive advantage. The results confirmed that, this element directly affect the competitive advantage. From the theoretical perspective,

the positive and significant influence in this study indicated that the greater the innovation, the greater the opportunity for SMEs to gain a competitive advantage. The results are in line with the previous finding which is innovation play an important role in achieving competitive advantage (Williams & Hare, 2012) in other setting.

Evidence indicates that foods manufacturing SMEs in Malaysia are unable to gain competitiveness mainly due to their inability to innovate. Therefore, for these firms to have a chance to gain competitive advantage, they will have to start getting into place the necessary driver of competitive advantage which is innovation. The findings of this study provide practitioners with valuable insights on how foods manufacturing SMEs in Malaysia may gain competitive advantage. Those SMEs firms aiming to gain competitive advantage are encouraging to take the initiative to attend formal learning program, through direct or indirect subsidy regarding training and learning of new technology in the manufacturing process (Dada & Fogg, 2014). The findings of this study may also be used as a guideline for entrepreneurs to establish network with research organization and universities for innovative activities or program which ultimately may gain competitive advantage in the marketplace. There are also implications for policy makers that are interested in ensuring SMEs competitive advantage. Since these SMEs are generally do not carry out innovation, policymakers will have to find ways of providing support to help them carry out innovation into their firms. For example, policy makers may increase access to information as well as improving the provision of training and guidance.

This study also found that firm age may fully moderate the influence of innovation on competitive advantage. Full moderation here means that the influence of innovation on competitive advantage is become stronger if the firm age of SMEs is less than five years. It implies that the younger firms, the stronger the influence of innovation on competitive advantage in foods manufacturing SMEs in Malaysia. This findings support the study done by Higon (2011) who found that firm age may substantially affects the relationship between innovation and competitive advantage. In conjunction with that, the Malaysian government is suggested to focus its resources to the young SMEs to ensure a more profitable return on investment. This group of SMEs have been proved to enjoy more significant benefit effects of the R&D subsidies (Nam, 2010).

Given that the findings are limited to Malaysian foods manufacturing SMEs sample, there is definitely a place for future researchers to take the study further by looking at how innovation may influence competitive advantage match in other industry in Malaysia. Further, the study can be extended to the other countries in order to compare results, and also generate a better understanding of the competitive advantage challenges faced by foods manufacturing SMEs across the region.

8. Conclusion

The aim of this work was to better understand the level of competitive advantage among foods manufacturing SMEs in Malaysia. The theoretical lens of SMEs competitive advantage as espoused by Barney (1991) was used to analyze the data under consideration. The analysis reveals that the foods manufacturing SMEs in this sample are not very competitive. They generally lack the major drivers of competitive advantage which the extant literature points out as critical to drive enterprise competitive advantage. The findings of this study are in line with the RBV theory (Barney, 1991) which assume that SMEs whose focus relative to its own capability is one of the way to gain a competitive advantage against rivals. This study also found the moderating effect of firm age on the influence of innovation on competitive advantage. The policy makers may channel the funds and consider the provision of grants to the younger SMEs to ensure a profitable return on investment in the future.

References

- Asree, S., Zain, M., and Razalli, M. R., 2010. Influence of Leadership Competency and Organizational Culture on Responsiveness and Performance of Firms. *International Journal of Contemporary Hospitality Management*, 22, 500-516.
- Abdullah, N. C., & Mustapha, R., 2009. Kajian kes usahawan tani Industri Kecil Sederhana (IKS) Bumiputera di negeri Terengganu (A Case Study of SMI Bumiputera agropreneurs in Terengganu). *Jurnal Pendidikan Malaysia*, 34(2), 143-165.
- Abou-Moghli, A. A., Abdallah, G. M. Al, & Mualla, A. Al.,2012. Impact of Innovation on Realizing Competitive Advantage in Banking Sector in Jordan . *American Academic & Scholarly Research Journal*, 4(5).
- Arend, R. J.,2006. SME-supplier alliance activity in manufacturing: Contingent benefits and perceptions. *Strategic Management Journal*, 27(8), 741-763. <http://doi.org/10.1002/smj.538>

- 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.
- Bayarçelik, E. B., Taşel, F., & Apak, S., 2014. A Research on Determining Innovation Factors for SMEs. *Procedia - Social and Behavioral Sciences*, 150, 202–211.
- Beck, T., 2013. Bank financing for SMEs - Lessons from the Literature. *National Institute Economic Review*, 16. <http://doi.org/10.1177/002795011322500105>
- Dada, O., & Fogg, H., 2014. Organizational learning, entrepreneurial orientation, and the role of university engagement in SMEs. *International Small Business Journal*, 1–19.
- 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(Icies 2013), 221–234.
- Higon, D. A., 2011. The impact of ICT on innovation activities: Evidence for UK SMEs. *International Small Business Journal*, 30(6), 684–699.
- Ismail, M. D., 2013. Learning Orientation and Trust in Small and Medium Enterprise (SME) Export Competitive. *Asian Academy of Management Journal*, 18(2), 153–179.
- Ismail, M. D., Domil, A. K. A., & Isa, A. M., 2014. Managerial Competence, Relationship Quality and Competitive Advantage among SME Exporters. *Procedia - Social and Behavioral Sciences*, 115(2013), 138–146.
- Kaleka, A., 2002. Resources and capabilities driving competitive advantage in export markets: guidelines for industrial exporters. *Industrial Marketing Management*.
- 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.
- Mohamad, A. N. A., Rashed, Z. N., & Rahman, R. A., 2008. Potensi, Cabaran dan Hala Tuju Industri Kecil & Sederhana. *Prosiding Perkim III*, 1, 662–674.
- Mohd Amin, F., 2001. Innovation in small and medium Enterprises (SMEs) in the Malaysian Information Technology (IT) industry. George Mason University.
- Muscio, A., Nardone, G., & Dottore, A., 2010. Understanding demand for innovation in the food industry. *Measuring Business Excellence*, 14(4), 35–48.
- Nam, M., 2010. The impact of government R&D subsidies on SMEs in Korea: Do government R&D subsidies make SMEs more competitive in the market? Georgetown University.
- Nausheen, H. A., 2007. Manufacturers responses to infrastructure constraints: How firms enhanced competitiveness in Pakistan's export industries. Columbia University.
- Saunila, M., 2014. Innovation capability for SME success: perspectives of financial and operational performance. *Journal of Advances in Management Research*, 11(2), 163–175.
- SME Corp. Malaysia., 2013. Guideline for New SME Definition.
- Soh, M., 2005. A correlational study of the relationship between a firm's intangible resources and its sustainable competitive advantage. ProQuest Dissertations and Theses. The George Washington University.
- Todtling, F., & Kaufmann, A., 2001. The Role of the Region for Innovation Activities of SMEs. *European Urban and Regional Studies*, 8(3), 203–215.
- Wang, Y., & Costello, P., 2009. An Investigation into Innovations in SMEs: Evidence from the West Midlands, UK. *Journal of Entrepreneurship*, 18(1), 65–93.
- Williams, D., & Hare, L., 2012. Competitiveness of Small Hotels in Jamaica: An Exploratory Analysis.: EBSCOhost.
- Zhang, M., 2006. Conceptualizing the Learning Process in SMEs: Improving Innovation through External Orientation. *International Small Business Journal*, 24(3), 299–323.
- Zainudin, A., 2012. Structural Equation Modeling using AMOS Graphic. Selangor: UiTM Press.
- Zainudin, A., 2014. A Handbook on Structural Equation Modeling. Selangor: MPWS Rich Resources.