THE EFFECT OF ENTREPRENEURIAL ORIENTATION OF SMALL FIRMS INNOVATION

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ABSTRACT

The innovation has become a crucial factor in developing business in both large and small organizations. The entrepreneurial orientation (EO) is recognized to be an effective development approach for innovation performance. However, the majority of past and current literature focus on the association between EO and innovation performance in the large organizations compared to small and medium firms, especially in the developing countries. Thus, this study aims to examine the association between EO and innovation performance in small business innovation performance in Malaysia. Due to the fact that the small business is a wide sector, food small firms were selected because they contribute significantly to Malaysian economy development and job creation. A survey was conducted with 177 firms, while regression was employed to analysis the relationship. The finding of this study ensures that there is positive relationship between EO and innovation performance in food small firms in Malaysia.

Keywords: *Entrepreneurial; orientation, small firms, innovation, Malaysia*

1. INTRODUCTION

In Malaysia, the small business sector plays an important role in Malaysian economy, particularly in job creation and household welfare improvement (Al-Shami, Majid, Mohamad, & Rashid, 2017; Samer et al., 2015). The nourishment industrial segment is an active sector which plays a significant role in economy development at different levels. It aids not only as a basis of job opportunities creation, nonetheless also a marketplace opening and supplementary worth for prime agricultural harvests. Based on the Industrial Master Plan (IMP) for 1986-1995, the nourishment dispensation manufacturing was recognized as a highest importance for manufacturing development. Agreeing with Malaysian Standard of Industrial Classification (2008), the nourishment dispensation is a

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sub-segment that falls under the industrial sector and the subsector contributes for around 10% of Malaysia's industrial production (Hasnan, Aziz, Zulkifli, & Taip, 2014). Among of 37 861 total SMEs in industrial sector, 6016 SMEs are engaged in the dispensation and industrial of food and drink goods creation it the industrial subsector with the second main attentiveness of SMEs. Nevertheless, the innovation of nutrition is in front of main encounters that disturb its performance whichever in local or international marketplaces. For example, innovation development access to skilled human capital, lack of knowledge, institutional barriers and financial resources (Hasnan et al., 2014; Nor, Bhuiyan, Said, & Alam, 2016).

The financial resources are important to start-up small business in Malaysia Al-shami, R, Majid, & Syaiful Rizal, (2016) enhance their capacity towards innovation development. However, there are another factors which play central role in innovation development, especially in new enterprises. For example, more recently, a large number of studies from global emphases to the importance of entrepreneurial orientation as a key for the development of innovation (Guo, Su, & Ahlstrom, 2016; Kollmann & Stöckmann, 2014; Shan, Song, & Ju, 2014). The enterprises behaviour to carry risk and undertake venture is very important to innovation development (Autio, Kenney, Mustar, Siegel, & Wright, 2014). The level of small enterprises innovativeness of the entrepreneur is too associated with innovation performance (Shan et al., 2014). In addition, the enterprises proactiveness has direct effect on the performance of enterprises, socially in innovation (Ashourizadeh, Chavoushi, & Schøtt, 2014). Despite the importance of entrepreneurial orientation in small enterprises performance, especially in innovation development, the literature still lacking of evidence in developing countries.

It is obvious that the SMEs literature in Malaysia has paid attention to the financial motivations such as credit availability, tax incentive and economic policies that motivate the development of entrepreneurship (Husin & Ibrahim, 2014; Zulkifli & Corresponding, 2010). The literature also discussed the nonfinancial drivers such as skilful human resources (Moorthy et al., 2012) business development training (Al-Shami & Majid, 2013; Al-shami, Razali, & Rashid, 2017; Talib, Ali, & Idris, 2014) and knowledge base economy (Ismail, 2009). In addition, many studies argued that entrepreneurial orientation is at the heart of business successfully development (Mahmood & Hanafi, 2013; Tehseen, Sajilan, Ramayah, & Gadar, 2015). However, studying the effect of entrepreneurial orientation on innovation development has not been well documented Bleeker, (2011), especially in food industry in Malaysia. Therefore, this research intends to bridge the broad theoretical gap in the literature generally and in Malaysia context particularly through describing and

evaluating the effect of entrepreneurial orientation on innovation performance in food enterprises.

2. LITERATURE REVIEW

Malinoski & Perry, (2000) in defining the terms of innovation which is the process of ideation, evaluation, selection, development, and implementation of new or improved products, services, or programs. (Malinoski & Perry, 2000) measures the performance of innovation through: - first, increased number of new ideas second, improved quality of ideas third, more efficient implementation of quality ideas and finally improved resultant success achieved from the implementation of new ideas.

2.1. Innovativeness

Innovation plays an important role as a main motivating force in economic improvement, and in the context of the company is perceived as a vigorous basis of innovation for strategic change by the a firm generates positive consequences with a sustained competitive advantage (Killa, 2014). Innovativeness can be defined as readiness and awareness to pursue unique methods of deed. Innovativeness contributions entrepreneurs to identify appreciated chances and to pursuit for new ways of task completion. Innovativeness is measured differently according to entrepreneurial trait and firm perspective. Bearing in mind the fact that innovativeness is the process of connecting the capitals of an organization, entrepreneurial orientation can enable the high-quality of the right resources for the business and as a importance recover the innovativeness (Chun-mei, Chien-hua, & Hsi-chi, 2011). Innovativeness supporting and encouraging new ideas as well as experimentation and creativity (Lechner & Gudmundsson, 2014). Asserts that entrepreneurial orientation based on innovativeness plays an important role of entrepreneurial in firm performance, especially in learning capacity (Patel, Kohtamäki, Parida, & Wincent, 2015), which a core driver for innovation development (Lichtenthaler & Lichtenthaler, 2009). Ejdys, (2015), measures innovativeness under five measurements namely rapidly process of innovation implementation, higher level of innovation than competitors, value of sales, research and development and continue innovative. Therefore, we hypothesis that:

H1: food small firms with high level of innovativeness have a high level of innovation performance

2.2. Proactiveness

The concept of proactiveness refers to the initiatives used by companies to market opportunities by grabbing inventiveness and foremost in the open market; competitive assertiveness refers to how companies respond to competitive tendencies and demands that previously occurred in the market (Lumpkin & Dess, 2001). The company should be together proactive and responsive in its location with regarding to technology and innovation change, rivalry, and clients. Proactiveness includes captivating the initiative in a work to form the environment to one's own benefit; responsiveness includes being adaptive to players' challenges. The role of entrepreneurial orientation based on proactivenss was found to have positive effect on Bumiputera small and medium enterprises (BSMEs) in Malaysia performance, especially in return on capital and assets (Amran Awang, Ab Aziz Yusof, Kamsol Mohamed Kassim, Mohammad Ismail, Rosihana Shekh Zain, 2009). Similarly, study from Czech Republic, explores the effective factors of entrepreneurial orientation in medium-sized enterprises (SMEs) performance and found that the proactiveness of the firms in conquering the market has positive effect on SMEs performance (Civelek, Rahman, & Kozubikova, 2016). The proactiveness of SMEs in respond to new competition, accelerating new product and series and enhancing R&D has direct effect on their performance in innovation development (Kreiser, Marino, Kuratko, & Weaver, 2013). Therefore, we hypothesis that:

H2: food small firms with high level of proactiveness have a high level of innovation performance

2.3. Risk taker

The management of risks is a growing area of concern (Ren et al., 2014) which can lead to a range of benefits for both projects and organisations. Ejdys, (2015) confirmed the significantly higher impact of the risk taking as an intermediate variable on the innovation through the mediator of proactivity. There are three categories of risk: (i) risk connected with "setting off into the unknown" which means lack of knowledge of probability of achieving success; (ii) risk connected with investing big amounts of money in uncertain ventures and (iii) personal risk connected with potential negative consequences ending up with the failure of unpredictable and new professional challenges (Lumpkin and Dess, 1996). Indicated risk categories may occur simultaneously, thereby cause a risk accumulation. In case of the innovations implementation it can be expected that all three risk categories will occur in the same time. The role of entrepreneurial orientation based on risk taker was found to have positive effect on Bumiputera

small and medium enterprises (BSMEs) in Malaysia performance, especially in return on capital and assets (Amran Awang, Ab Aziz Yusof, Kamsol Mohamed Kassim, Mohammad Ismail, Rosihana Shekh Zain, 2009). Similarly, study from Czech Republic, explores the effective factors of entrepreneurial orientation in medium-sized enterprises (SMEs) performance and found that the risk taking of the firms in conquering the market has positive effect on SMEs performance (Civelek et al., 2016). The tendency of SMEs towards risk taker has positive effect in innovation performance. in estimating market risk, open mind Naldi, Nordqvist, Sjöberg, & Wiklund, (2007) and proactively invest in technology (Autio et al., 2014) are all important to determine the potential innovation development opportunities. Therefore, we hypothesis that:

H3: food small firms with high level of risk taker have a high level of innovation performance

2.4. Autonomy

Autonomy is related completely with the development of entrepreneurial actions, the formation of an entrepreneurial setting and opportunity pursuit and utilization behaviours (Lechner & Gudmundsson, 2014). The role of entrepreneurial orientation based on autonomy has significant effect on Bumiputera small and medium enterprises (BSMEs) in Malaysia performance, especially in return on capital and assets (Amran Awang, Ab Aziz Yusof, Kamsol Mohamed Kassim, Mohammad Ismail, Rosihana Shekh Zain, 2009). Likewise, study from Czech Republic, explores the effective factors of entrepreneurial orientation in medium-sized enterprises (SMEs) performance and found that the autonomy of the firms in conquering the market has positive effect on SMEs performance (Civelek et al., 2016). Lechner & Gudmundsson, (2014) discovers how individual entrepreneurial orientation scopes impact the association between competitive strategy and firm outcomes. This study found that autonomy strategy in the firm has positive effect in accelerating the achievement of competitive advantage. The level of autonomy that SMEs offer to their employees through encouraging them to exercise their skills and address their decisions is important to achieve innovation performance (Baba, 2011). Therefore, we hypothesis that:

H4: food small firms with high level of autonomy have a high level of innovation performance

2.5. Competitiveness aggressiveness

Competitive fierceness needs intense act that is intended at outdoing manufacturing competitors. This can either be completed by cultivating existing products as well as doing effects inversely. Companies can then catch a new position for themselves or aim at the rivals' weaknesses by emerging greater products or services (Huang & Wang, 2011). Additionally companies can react aggressively and rapidly with innovation when it expressions creative and troublesome movements of competitors (Pérez-Luño, Wiklund, & Cabrera, 2011). (Lumpkin & Dess, 2001) defines competitiveness aggressive is an important indicator towards companies performance through the company ability to compete. The level of competition aggression of the SMEs in dealing with competitors, and adopting decisive plan to compete is important to achieve innovation performance (Baba, 2011). Therefore, we hypothesis that:

H5: food small firms with high level of competitiveness have a high level of innovation performance

Table 1. Determinants of entrepreneurial orientation

Entrepreneurial Innovativeness	
Firms and new technology Firms with encouraging the employees to be innovative	Ejdys, (2015) (Patel et al., 2015). (Killa, 2014).
Entrepreneurial Proactiveness	
Respond to new competition Faster new product and services development Research and development	(Civelek et al., 2016). (Amran Awang, Ab Aziz Yusof, Kamsol Mohamed Kassim, Mohammad Ismail, Rosihana Shekh Zain, 2009) (Lumpkin & Dess, 2001). (Sebora & Theerapatvong, 2010). (Kreiser et al., 2013)
Entrepreneurial Risk Taker	
Practicing wait and see the market risk Open minded and bravely respond Invest in new technology under uncertainty	(Civelek et al., 2016). (Amran Awang, Ab Aziz Yusof, Kamsol Mohamed Kassim, Mohammad Ismail, Rosihana Shekh Zain, 2009) (Ejdys, 2015) (Autio et al., 2014) (Naldi et al., 2007)
Entrepreneurial Autonomy	
Employees involvement in development of innovation or new investment Commitment and implementation of employees' ideas Encourage employees to make the decisions	Lechner & Gudmundsson, (2014) assets (Amran Awang, Ab Aziz Yusof, Kamsol Mohamed Kassim, Mohammad Ismail, Rosihana Shekh Zain, 2009). (Civelek et al., 2016) (Lumpkin, Cogliser, & Schneider, 2009) (Baba, 2011)
Competiveness	
My firm is very aggressive and intensely competitive in dealing with its competitors My firm Typically adopts a very competitive undo-the-competitors" posture	(Lumpkin & Dess, 2001) (Lumpkin & Dess, 2001) (Huang & Wang, 2011). (Pérez-Luño et al., 2011) (Baba, 2011)

3. METHODOLOGY AND ANALYSIS

Quantitative research was conducted, while survey was employed to gather the data. The unit of our study is small food enterprises which was randomly selected. The main reason of selecting food sector is due to its importance to Malaysian economy which contributes about 10% of the economy. The setting of this study was purposefully selected from Selangor and Melaka due to the rapidly growth of small enterprises in these two states, especially food industry. Data was gathered based on survey from 177 questionnaires were distributed to 177 of small food enterprises in Selangor and Melaka. The survey targeted the managers.

4. DATA ANALYSIS

There are numerous types of reliability tests which are widely used, nonetheless the internal consistency reliability test is the remark method that are extensively used by researchers (Litwin, 1995). The Cronbach's alpha coefficient is the most common test for testing inter-item consistency reliability is (Sekaran and Bougie, 2009). Hence, the reliability of concepts of this research were measured through Cronbach's alpha. As shown in Table 2, there are six constructs were undergone reliability test. The whole outcomes analysis displays that the tool has a great reliability standard (Hair, Anderson, Tatahm, & Black, 2010).

Table 2. Reliability test

Construct	Items	Cronbach's alpha
Entrepreneurial Risk Taker	3	0.83
Entrepreneurial Proactiveness	3	0.73
Entrepreneurial Competitiveness	2	0.75
Entrepreneurial Autonomy	3	0.73
Entrepreneurial Innovativeness	2	0.77
Innovation Performance	10	0.93

Regression Analysis

A liner regression was employed to describe the statistical association between five independent variables namely (entrepreneurial risk taker, entrepreneurial innovativeness, entrepreneurial competiveness, entrepreneurial proactiveness and entrepreneurial autonomy) and dependent variable innovation performance. The ratio of variance in the endogenous variable explained by the exogenous variables (R^2) was 80.6%. The ANOVA test shows that the multiplied F statistic is 147.484, is significant at 0.000. Therefore, the null hypotheses that assure that there is no relationship between the exogenous and endogenous variables was rejected.

Empirical Results

As demonstrated in Table 3, the association between entrepreneurial risk taker and innovation performance is positive significant at b coefficient = 0.175 and p. value of 3.2 and the p. value of 0.002. The relationship between entrepreneurial innovativeness and innovation performance is positive significant at b coefficient = 0.129 and p. value of 3.2 and the p. value of 0.002. The relationship between entrepreneurial competiveness and innovation performance is positive significant at b coefficient = 0.171 and p. value of 4.6 and the p. value of 0.000. The relationship between entrepreneurial autonomy and innovation performance is positive significant at b coefficient = 0.297 and p. value of 5.1 and the p. value of 0.000. Finally, the relationship between entrepreneurial proactiveness and innovation performance is positive significant at b coefficient = 0.173 and p. value of 3.9 and the p. value of 0.000.

Table 3. Empirical results

Model		Coeffi		Std	t	Sig.
		B	Std. Error			
1	(Constant)	.316	.157		2.014	.046
	Proactiveness	.175	.045	.196	3.891	.000
	Risk Taker	.173	.054	.168	3.226	.002
	Autonomy	.297	.058	.316	5.128	.000
	Competiveness	.171	.037	.231	4.650	.000
	Innovativeness	.129	.040	.161	3.194	.002

$p^* < 0.05$, $p^{**} < 0.001$, $P^{***} < 0.0001$

5. DISCUSSION

The literature suggests that the majority of previous studies were extensively conducted to examine the relationship between entrepreneurial orientations based on individual entrepreneurs on firm performance. However, very little studies conduct to examine the relationship between firm entrepreneurial orientations on firm innovation performance (Caggese, 2012; Radosevic & Yoruk, 2013). More importantly, very few studies examine how entrepreneurial orientations affect innovation performance in micro and small enterprises, especially in food industry and more importantly in Malaysia. Due to incomplete literature about innovation performance through entrepreneurial orientation it was suggested for future research to examine the relationship between EO and innovation performance in small firm (Huang & Wang, 2011; Sadler-Smith, Hampson, Chaston, & Badger, 2003).

Based on a quantitative method through survey gathered from 177 small food enterprises from Selangor, the regression results show that there is strong association between EO proxied by proactiveness, risk taker, autonomy, competitiveness and innovativeness and innovation performance firms. The innovation performance in food firm in Malaysia was measured based on: - first, increased number of new ideas second, improved quality of ideas third, more efficient implementation of quality ideas and finally improved resultant success achieved from the implementation of new ideas.

This research contributes to the body of knowledge generally and entrepreneurial orientation theory particularly through adding new evidence about the effect of EO on innovation performance. This research also contributes positively to the industry and provides a new insight to improve the capability of food firms to increase their innovation performance.

6. RESEARCH LIMITATION AND FUTURE RESEARCH

Despite this research discussed an important issue about the EO on innovation performance in MSMEs and arrived with meaningful outcomes that contributes to academic work as well as to the policymakers in developing countries with emerging economy such as Malaysia, this research has several limitations which can be a guide and recommendations for future researches. First, the sample size was very small and the scope of the research was narrowed to MSMEs in food industry with focusing on two states Melaka and Selangor only. This limitation was due to time constrain and budget. Thus, future researches have the opportunity to explore in further with wide size of the sample throughout the country.

The second limitation is the scope of the research, especially in direct relationship between EO and innovation performance. However, there are many mediating variables that plays significant role in firm performance such as supply chain. Thus, future researches are recommended to explore the role of supply chain in the relationship between EO and innovation performance in food MSMEs.

Third, the used methodology was quantitative. This method has its strengths in reaching a large size and generalize the results. However, this method has its limitation in explore in deep the phenomenon of technology, especially with technical thing such as supply chain. Therefore, future research is recommended to use mix method to consolidate the weaknesses of each method by using others.

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