

Innovation and Performance in Malaysia's Manufacturing Companies: The Control Variable of the Company's Year of Establishment

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ABSTRACT

This study was conducted an exploratory study to investigate the extent to which the company's year of establishment affects innovation and performance in Malaysia's manufacturing companies. The findings revealed that the study supports positive relationship between innovation and innovative performance with the influence of the company's year of establishment is as consistent as claimed in the previous studies. There are four most ranked categories of innovation based on the product, process, marketing and organization examined in the study. However, results found that marketing and organizational innovation did not have significant relationship with innovative performance due to low level of customer service and the emphasizing only on purely production by Malaysia's manufacturing companies. This study applied quantitative approach through a self-administrated questionnaire and believed to be able to contribute to the importance of each category of innovation efforts as a fundamental source of competitive advantage that is a necessary precondition to boost a company's ability to penetrate the market. A total of 323 samples were collected and analysed using Partial Least Squares structural equation modelling technique. Thus, this study can reflect its current performance and represent the true position of manufacturing companies in Malaysia.

INTRODUCTION

Malaysia's economy growth has advanced from industrial era into a more diversified economy with a greater role for knowledge intensive activities and innovation (Akoum, 2016). Manufacturing sector is the second largest source of contributor towards Gross Domestic Product (GDP) and Foreign Direct Investment (FDI) in Malaysia (Department of Statistics Malaysia, 2018; The Star Online, 2019). As shown by the Department of Statistics Malaysia (2018), the Malaysia's manufacturing sector has contributed 22.78 per cent or RM253.9 billion to the Malaysia GDP growth rate for domestic products and attracted RM58.49 billion of total capital investment. Moreover, the Eleventh Malaysia Plan (RMK11) has targeted a GDP annual growth of 4 to 4.5 per cent to be driven mainly by the services and manufacturing sectors (The World Bank, 2019).

However in recent years, the manufacturing sector in Malaysia showed a rather poor performance in terms of its manufacturing activities including lack of competitive manufacturing practices in resources management and materials, higher cost and low quality of production, insufficient of skilled and experienced operation workers, and lack of innovation in their production systems (Sidin & Sham, 2015; Nagulendran, Padfield & Campos-Arceiz, 2016; Nordin & Adebambo, 2016; Abdul-Rashid, Sakundarini, Ghazilla & Thurasamy, 2017; Asada, Nixon & Koen, 2017). In addition, Sidin and Sham (2015) indicated that Malaysia's manufacturing sector shows less competitive when it compared to the countries like Thailand, Indonesia, India and China. This can be observed from the foreign manufacturing companies in Malaysia that tend to be more competitive in their operation systems and procedures through their production quality, productivity and cost efficiency (Sidin & Sham, 2015; Nagulendran et al., 2016; Asada et al., 2017).

Moreover, issues have been found by Chandran, Sundram and Santhidran (2014), and Chandran, Krishnan and Devadason (2017) that the manufacturing companies in Malaysia are still inactively involved in its research and development (R&D) activities due to higher cost of investment and not beneficial for short-term financial gains. Although the government has allocated sufficient funds for the R&D facilities, but yet local manufacturers are lacking skilled workers to transform their production systems and practices into more quality, effectiveness and efficiency (Sidin & Sham, 2015). Some companies are even still practising with conventional methods in their production systems and chose to outsource their large manufacturing orders to other producers in order to maintain their traditional works and intent to stay in their current performance (Agus & Hajinoor, 2012; Agus & Iteng, 2013; Sidin & Sham, 2015). Chandran et al. (2017) also explained that innovation systems amongst Malaysia's manufacturing companies are obsoleted due to lack of interaction between the companies with public sector, public research institution and universities. These poor innovative and production performance activities have caused the manufacturing sector dropped from being the dominant sector in Malaysia to second place (Chandran et al., 2014; Chandran et al., 2017). Therefore, manufacturing companies in Malaysia are still weak in their manufacturing systems compared to the competitive industrialized markets in other developing countries.

Hassan, Shaukat, Nawaz and Naz (2013) have strongly emphasized that innovation is one of the driving forces to gain sustainability and competitive advantage nowadays for every sector, especially in manufacturing sector. Innovation able to create new products that satisfy customers' preferences and investors' requirements, it also assists to push forward Malaysia's public and private sectors for long-term sustainable performance and investment. Therefore, this paper has investigated whether

Malaysia's manufacturing companies are practising the vital effects of innovation, which are product, process, marketing and organizational innovation towards the companies' innovative performance. This paper also looked into the manufacturing companies' year of establishment that has affected their innovative performance. The samples of the manufacturing companies are selected under the Federation of Malaysian Manufacturers (FMM). Authorities such as Ministry of International Trade and Industry (MITI) Malaysia and Malaysian Investment Development Authority (MIDA) are taking initiative on encouraging Malaysian manufacturing companies to invest on R&D rather than cutting costs to restrict their innovation. The government also has making full efforts on providing education service and awareness to manufacturing companies in order to capture the opportunities to implement their final manufactured products successfully.

LITERATURE REVIEW

Innovative Performance

Innovation can bring positive changes to the production process and will be able to improve the performance of the company. This study focuses on innovative performance as it is seen as having high impact on improving market position, gain competitive advantage and achieve advantageous performance (Zakaria, Abdullah & Yusoff, 2016; Lita, Meuthia, Faisal & Surya, 2018). Innovative performance involves a combined general accomplishment of an organization due to having new, renewal or upgraded efforts completed with regards to the organization innovativeness that consist of different effects such as innovation in product, process, marketing and others (Freeman & Soete, 1997; Hagedoorn & Cloudt, 2003).

Innovative performance is conceptualized as the construction proving organizational learning and direction with carry on efforts for enhancements, reconstruction

and gaining knowledge from the rapid changing of competitive market condition (Gunday, Ulusoy, Kilic & Alpkan, 2011). It can determine whether the organization should carry out efforts of renewing or enhancing its existing products, processes, marketing and organizational strategies or totally create the new one in the market (Gunday et al., 2011). Innovative performance has been identified as a vital role compared to other outcomes such as organizational performance because it can be cooperatively interacted with innovation effects to promote significant positive outcomes for the organization development and financial gain (Hagedoorn & Cloudt, 2003).

Furthermore, as stated in Pelham's study (1997) that innovative performance is the main indicator to satisfy new and existing customers, gain sales and stock market. It also is an indicator for companies' production, monetary and marketing performance (Hassan et al., 2013). Han, Kim and Srivastava (1998) further clarify that innovative performance also capable of producing positive organization development and higher return through technical and managerial innovation. Pett and Wolff (2009), Zakaria et al. (2016) and Lita et al. (2018) provide a comparison research between the influences of product and process innovation on innovative performance. The researchers found out that specific product enhancements are positively related with innovative performance. Gopalakrishnan (2000) also establishes similar finding stated that innovation for companies' size and quickness are corresponding to innovation features and it has a positive correlation with innovative performance. However, an empirical study examined on British companies found that different innovation effects are correlated with innovative performance (Oke, 2007). Capon, Farley, and Hoenig (1990), Subramanian and Nilakanta (1996), and Chandler and Hanks (1994) also found that there was no significance relationship between innovation and innovative performance.

Innovation

Innovation has been attracted as a great interest in the growing body of literature. It is very important to become one of the stimulators to promote strategic directions to solve the problems of organizations and assisting them to pursue sustainable competitive advantage (Drucker, 1985). Essentially, the level of innovation can be transformed based on the progress of an organization from a broad range of radical innovation advancing to incremental innovation, which is a type of progressive change (Neely & Hill, 1998). For those organizations who involved in organizational change through innovation and knowledge could produce unbalance circumstance and the change will lead the organizations into new gain opportunities or gaps emerge. The degree of change is increasing depends on how innovative in terms of technology advancement, characteristic of consumer demand and raised global competition (Jacobson, 1992).

In this paper, the reason of examining innovation is because it is a potential growth instrument for creating something new and it is an unconventional way of enhancing existing innovation effects including products or services, processes, marketing strategies, and organizational practices (Gunday et al., 2011). Johanessen, Olsen and Lumpkin (2001) further clarified that the degree of innovation is varied, and it could reinforce the organization's position when there was an appropriate measurement of innovation. The researchers have recommended six effects of innovation which included new products or services, new production ways, exploiting novel market, new supply resources and new organizational approaches (Johanessen et al., 2001). Besides, Organization for Economic Co-operation and Development (OECD) (2005) was strongly recommended four types of innovation, which emphasized product innovation, process innovation, organizational innovation and marketing

innovation. These four innovation effects are commonly adopted and implemented by the majority as an international guideline for researchers to measure innovation activities in their respective fields or sectors. Therefore, this paper had deliberated the four innovation effects that are repeatedly generating from the literature.

Product innovation is defined as creating something new or modification to the present products or services. The product modification includes change in product features, environment friendly parts or raw material and upgrade of applications or software (Hassan et al., 2013). The second effect of innovation is the process innovation to enhance production process and logistic or improves its supporting activities, such as computing system, preservation, accounting and purchasing. It also identified as having new or improved execution of the production or conveyance way to generate effective and efficiency to the production of the business (Polder, Leeuwen, Mohnen & Raymond, 2010). For organizational innovation, it is identified as managing business operation with novel practices, workplace forming ways, determination system and unique instruments of administrating extrinsic relations to gain competitive advantage and achieve customer satisfaction (Gunday et al., 2011). The last innovation effect would be marketing innovation that carrying out new marketing approaches to make vital changes in its product, price, place and promotion strategies in order to enhance revenue and expand into new markets (OECD, 2005).

Company's Year of Establishment

In this study, year of establishment represents how long a manufacturing company has been operating in business. The company's internal processes of innovation can be evaluated based on their transformation over time, such as the period of business operation measured by year (Naldi & Davidsson, 2013). Behrman

and Deolalikar (1989) found that the durability of company's establishment relies on several factors including market position, availability of resources, management skills and networking. These factors could lead an organization sustained and growth, however others simply cannot (Behrman & Deolalikar, 1989).

Generally, a company's year of establishment is often lead to increasing benefits in determining firm age, growth and death ratios as well as attentiveness in examining the differentiation between old and young companies (Dunne, Roberts & Samuelson, 1989; Brown & Medoff, 2003). In Sorensen and Stuart (2000) and Henderson and Clark (1990) studies, they found that innovation and innovative performance became gradually less during the increasing period of business establishment (in year) due to the firms had difficulties in adapting to new environmental demands and resisted to change. In other words, new or young firms were more innovative and able to gain better innovative performance for their study. Another reason justified by Burgelman (1994) is that new firms offered higher incentives to motivate employees engaged in innovation activities, whereas for the firms who established more than five years were preferred to save costs for uncertain risks instead of innovation's investment. It was concluded that as new firms offered higher incentives on innovation efforts, and these younger firms are able to generate more innovation to affect high innovative performance (Burgelman, 1994; Christensen & Bower, 1996). In addition, Criscuolo, Nicolaou and Salter (2007) found that there was a positive relationship between innovative performance influenced by the company's year of establishment. However, from their findings they found that new manufacturing firms had less creativity in improving their innovative performance, while old manufacturing firms did innovation efforts for their firms and led to higher innovative performance.

As stated by Teece (1986) and Rao and Drazin (2002) that the increment of the company's year of business establishment could enhance innovativeness and create innovative performance from all aspects of an organization which include its products or services, process, marketing and organizational constitution. They further justified that established firms encompassed supplementary assets that would be able to provide high stability of organizational positions and improve their capability on technological innovation in producing new products (Teece, 1986; Rao & Drazin, 2002). From their studies therefore, innovative performance was increased when the company's year of business establishment was increasing. In addition, established firms have stronger asset in terms of their internal cash flows to support their innovation activities (Greenwald, Stiglitz & Weiss, 1984). Efficient management of financial innovation will reduce innovation cost in assessing capital markets compared to borrow loans for research and development investment. Thus, Greenwald et al. (1984) concluded that strong financial support can generate innovation to enhance innovative performance for established firms, especially for established firms whom are established for 11 years and above.

On the other hand, Li, Chu, Lam and Liao (2011) argued that business establishment did not affect the relationship between innovation and innovative performance due to the firms emphasized on product innovation itself such as product modification and upgrading rather than focus on year of establishment among the firms. They just treated it as their control variable to generate extra information to them.

METHODOLOGY

Research Background

The framework of this paper is shown in Figure 1. This paper was conducted through exploratory research using quantitative approach. A cross-sectional survey study

is carried out in this paper to examine the relationships between innovation, year of establishment and innovative performance.

This paper was applied primary data through the development a self-administrated questionnaire using structured questions.

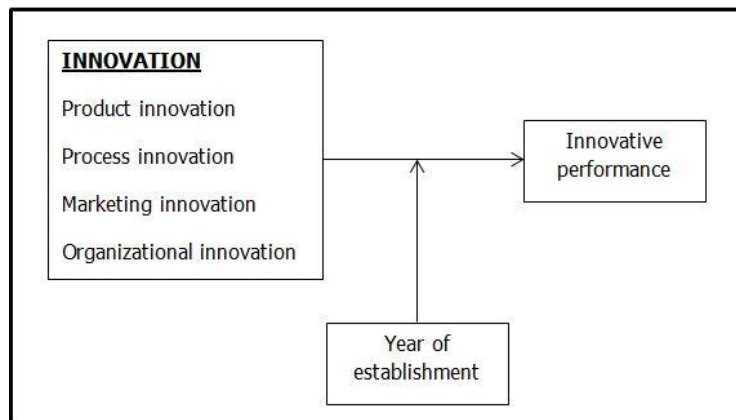


Figure 1 Theoretical framework

Managerial employees from the production and management level of the Malaysia’s manufacturing companies had been selected as the targeted respondents of this study. This is because their roles are being responsive to the production process and organization performance. It is believed that the managerial employees are actively involved in the strategic and operational plans and affect the overall performance of an organization. At the same time, they possessed high decision-making power on deciding the day-to-day operations at manufacturing processes to ensure that production stays on schedule and resolve any production problems immediately. Also, managerial employees can play a key role in delivering innovation capabilities and take a lead in moving organizations’ sustainable competitive advantage (Welford, 2013; Arsat, Amin, Latif, & Arsat, 2017). Moreover, they can act as change agents that are extremely necessary to enhance production processes effectively through employing innovation capabilities.

The data of this study had collected by using a structured questionnaire, and it had distributed to respondents based on industrial zones in Malaysia, which consist

of 188 industrial areas within 14 states of Malaysia. The samples were drawn from the Federation of Malaysian Manufacturers (FMM) directory through disproportionate stratified random sampling. One of the steps of distributing questionnaires includes setting an appointment with respondent through mail or call, before proceeding to answer the questionnaire. FMM is established since 1968, it is a private organization that represents the interests of over 2,600 leading industrial establishments at international, regional, national, state, local authorities, and industry sub-sector levels in Malaysia. Moreover, FMM acts as a service provider’s platform for both domestic and foreign markets outreach that provides business opportunities and networking for Small and Medium Enterprises (SMEs), manufacturers, retail chain forum, business and export focus groups in Malaysia. In addition, there are details of FMM members’ organizations addresses, names, contact numbers and emails that listed annually in the FMM directory. Therefore, this study will utilize FMM directory as the main source of obtaining significant findings and sufficient respond rate.

A total of 323 samples were collected and analysed to serve as the target group of this study. The manufacturing sub-sectors had

been classified into 20 manufacturing sub-sectors based on standard set by the Malaysian Investment Development Authority (2016). Manufacturing sector had been selected in this study because it has a significant and essential contribution to Malaysia's economic developments (Malaysian Investment Development Authority, 2016). Moreover, Malaysia's manufacturing companies are believed to be a potential sector to generate higher competitive advantage from domestic and foreign investors. Hence, this paper was aimed to examine the control variable of the company's year of establishment in the relationship between innovation and innovative performance.

RESULTS AND DISCUSSION

Data Analysis

The obtained data were analysed for reliability using the Partial Least Squares (PLS). The

results of the data analysis were showed that all the Cronbach's alpha (CA) values are above 0.70 and the average CA value of the overall constructs is 0.95 (refer to Table 1). The composite reliability values (CRb) are above 0.90 and the average value of CRb is 0.96. The Average Variance Extracted (AVE) values of the convergent validity for each construct are analysed in the scope between 0.75 and 1.00, which exceed the recommended value. It shows that there are strong relationships between the indicators.

Table 1 shows the composite reliability of every construct had displayed the values between 0.942 and 1.000 and these had proved to meet the 0.70 cut-off point. High levels of internal consistency reliability had been spelled out and the discriminant validity of every construct showed the values between 0.838 and 1.000, which stated the highest levels on their respective rows and columns.

Table 1 Results of reliability – Cronbach's Alpha and Composite Reliability

Construct	Item	Loadings	AVE	CRb	Cronbach's Alpha
Innovative Performance	IP1	0.885	0.751	0.955	0.945
	IP2	0.846			
	IP3	0.878			
	IP4	0.838			
	IP5	0.895			
	IP6	0.839			
	IP7	0.884			
Product Innovation	PI1	0.884	0.771	0.953	0.941
	PI2	0.898			
	PI3	0.863			
	PI4	0.890			
	PI5	0.858			
	PI6	0.876			
Process Innovation	CI1	0.886	0.765	0.942	0.923
	CI2	0.848			
	CI3	0.897			
	CI4	0.850			
	CI5	0.893			
Marketing Innovation	MI1	0.902	0.804	0.943	0.919
	MI2	0.891			
	MI3	0.896			
	MI4	0.898			

Organizational Innovation	OI1	0.906	0.782	0.970	0.965
	OI2	0.867			
	OI3	0.896			
	OI4	0.861			
	OI5	0.898			
	OI6	0.865			
	OI7	0.899			
	OI8	0.869			
	OI9	0.896			
Year of Establishment	Year	1.000	1.000	1.000	1.000

Table 2 Loadings and cross loadings

	Process Innovation	Innovative Performance	Marketing Innovation	Organization Innovation	Product Innovation	Year of Establishment
CI1	0.895	0.650	0.612	0.596	0.617	-0.726
CI2	0.879	0.701	0.637	0.658	0.627	-0.730
CI3	0.875	0.642	0.609	0.589	0.620	-0.688
CI4	0.896	0.691	0.653	0.640	0.659	-0.755
CI5	0.904	0.659	0.605	0.634	0.600	-0.710
IP1	0.662	0.890	0.702	0.739	0.636	-0.655
IP2	0.606	0.852	0.697	0.731	0.664	-0.635
IP3	0.612	0.854	0.672	0.727	0.622	-0.619
IP4	0.665	0.867	0.680	0.706	0.659	-0.672
IP5	0.689	0.891	0.755	0.786	0.651	-0.696
IP6	0.676	0.873	0.718	0.748	0.710	-0.665
IP7	0.683	0.888	0.711	0.755	0.678	-0.678
MI1	0.626	0.701	0.903	0.707	0.634	-0.706
MI2	0.584	0.702	0.871	0.750	0.618	-0.694
MI3	0.640	0.746	0.885	0.745	0.671	-0.698
MI4	0.648	0.731	0.910	0.726	0.614	-0.722
OI1	0.643	0.728	0.704	0.866	0.652	-0.661
OI2	0.613	0.768	0.694	0.874	0.626	-0.661
OI3	0.646	0.737	0.727	0.874	0.632	-0.701
OI4	0.576	0.725	0.713	0.880	0.612	-0.661
OI5	0.642	0.771	0.745	0.889	0.663	-0.681
OI6	0.586	0.713	0.712	0.871	0.603	-0.684
OI7	0.621	0.769	0.756	0.891	0.667	-0.703
OI8	0.583	0.736	0.695	0.876	0.603	-0.628
OI9	0.629	0.761	0.735	0.882	0.654	-0.694
PI1	0.620	0.631	0.608	0.639	0.883	-0.648
PI2	0.573	0.657	0.605	0.620	0.874	-0.612
PI3	0.643	0.656	0.628	0.632	0.872	-0.633
PI4	0.646	0.703	0.672	0.677	0.880	-0.668
PI5	0.620	0.659	0.613	0.611	0.868	-0.658
PI6	0.595	0.673	0.618	0.630	0.890	-0.613
PP1	0.743	0.699	0.704	0.764	0.691	-0.725
PP2	0.670	0.666	0.659	0.730	0.690	-0.644
PP3	0.703	0.680	0.703	0.733	0.694	-0.690
PP4	0.720	0.692	0.678	0.754	0.716	-0.690
Year	-0.812	-0.756	-0.790	-0.769	-0.728	1.000

*Bold values are loadings for items, which are above the recommended value of 0.5

The R^2 had found by using the SmartPLS algorithm (Figure 2) while for the t-statistic, the value had obtained from the bootstrapping of 500 resamples as stated in Figure 3. The R^2 value

for innovative performance is 0.959 or 95.9 per cent, which showed the R^2 value is significant. When the R^2 value is high, it could increase the predictability of the structural model.

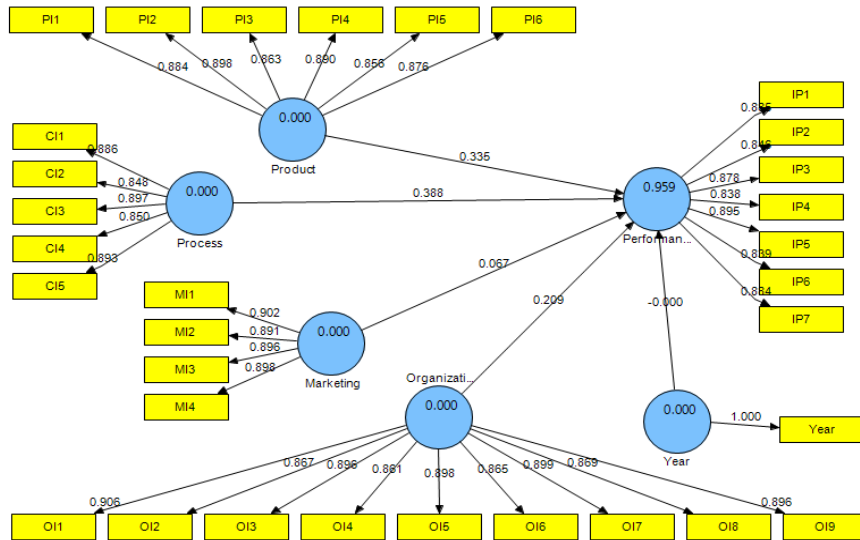


Figure 2 PLS model graph (algorithm)

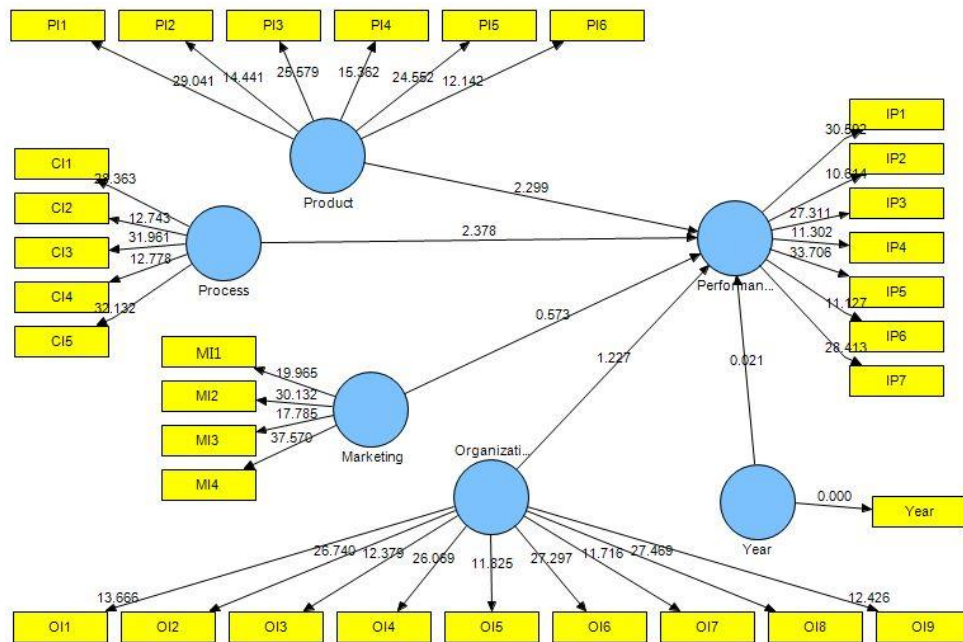


Figure 3 PLS Model graph (bootstrapping)

The validity of the research hypotheses and structural model of this study were analysed based on the path coefficient value among two latent variables. In the assessment of the path coefficient as shown in Figure 3, it shows that the proposed hypotheses

of the relationships between product innovation, process innovation and innovative performance were supported. However, the relationships between marketing innovation, organizational innovation and innovative performance and the company's year of

establishment and innovative performance were not supported. From the analysis, hypotheses which are supported had at least a significance level of 0.05 and they had expected sign directions (positive value), with the path coefficient (β) values are ranging from 0.067 to 0.388.

When comes to the proposed hypotheses of the company's year of establishment, it showed the influenced of relationship between organizational innovation and innovative performance was supported. Meanwhile, the influenced of the company's year of establishment on the relationships between product innovation, process innovation, marketing innovation and innovative performance were not supported. Therefore, hypotheses which are supported

had at least a significance level of 0.05 and they had expected sign directions (positive value), with the path coefficient (β) values ranging from -0.346 to 0.231 .

Figure 4 had showed the positive relationship between organizational innovation and innovative performance would be stronger with shorter year of establishment (1 – 10 years) because the statistical data showed $\beta = -0.346$ and t -value of 1.805. The figure also showed the line labelled 11 years and above had a steeper gradient compared to the line between one to ten years (1 – 10 years) indicating the positive relationship of organizational innovation is indeed stronger when the company's year of establishment is low, which is between one to ten years (1 – 10 years). Thus, this hypothesis is supported.

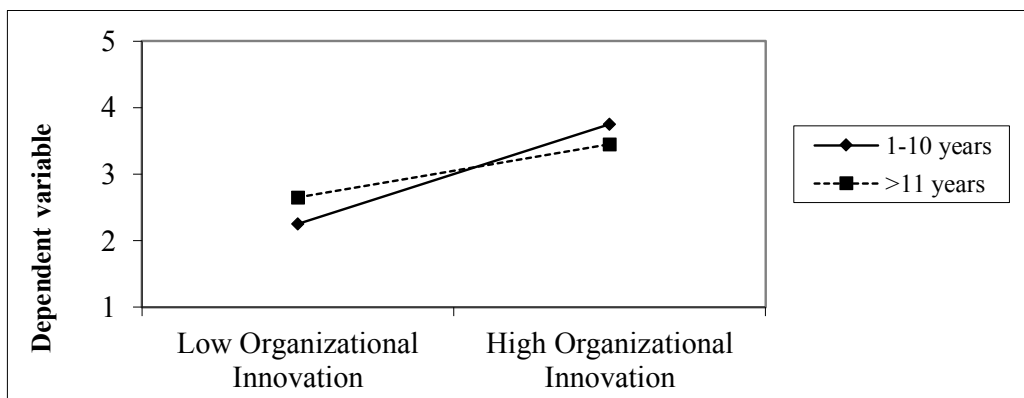


Figure 4 The company's year of establishment interaction plot

DISCUSSION AND IMPLICATIONS

It is unsurprisingly that innovation is positively affected innovative performance, likewise innovation plays an important role in enhancing the productiveness and economic efficiency on innovative performance in Malaysia's manufacturing companies. The result is consistent with the previous studies (e.g. Hagedoorn & Cloudt, 2003; Walker, 2004; Pett & Wolff, 2009; Gunday et al., 2011; Hassan et al., 2013; Zakaria et al., 2016; Lita et al., 2018). The results of the study showed that Malaysia's manufacturing companies have significantly applied product and process innovation

in order to lead them towards sustainable competitive advantage. They are practicing and increasing their product innovation in terms of components and materials qualities and develop new products, process and organizational innovation through eliminating or decreasing unnecessary activities that involved extra cost in their delivery procedures and production processes.

This study has presented from the empirical support that Malaysia's manufacturing companies are able to mobilize and allocate innovation-based resources effectively with a combination of

their resources and capabilities (Gunday et al., 2011; Hassan et al., 2013). However, not all the innovation dimensions necessarily lead to an increase in innovative performance, that is marketing innovation due to low level of customer service and the emphasizing only on purely production by the companies. It was found that Malaysia's manufacturing companies are ignored or lack of marketing activities such as product design, promotion, pricing and product allocation were negatively affected their innovative performance. Moreover, lack of marketing innovation has led to the manufacturing companies in Malaysia unable to discover new markets or create new products to enhance its sales and profitability as well as increase customer satisfaction.

The findings also found that Malaysia's manufacturing companies are still lacking facilitating teamwork in their organizations' structures and renew their quality management systems through organizational innovation. Some companies as aforementioned are still employing traditional or conventional practices in its production systems and procedures because they are unwilling to take risks, especially for the long established (10 years and above) manufacturing companies. Thus, this study is recommended that the companies should invest more on R&D activities such as seek consultation or advices from public or private universities, authorities such as Malaysian Research and Development Classification System (MOSTI), Malaysian Investment Development Authority (MIDA) and Malaysian Science and Technology Information Centre (MASTIC) in order to be innovative and capable of moving forward compared to their rivals to achieve competitive advantage.

From the perspective of the company's year of establishment, the result shows that company's year of establishment allows manufacturing companies to exploit company's routines with effectively and

efficiency in order to increase innovative performance. Moreover, the measure of the year of establishment in this study is believed that able to provide a guideline in determining how long is the effectiveness of innovation on innovative performance among Malaysia's manufacturing companies. Based on the findings, both old and young Malaysia's manufacturing companies are recommended to be more innovative especially on the product and marketing innovation because they able to increase manufacturing companies' products quality, new product development reduce the manufacturing costs in order to achieve win-win situation for organizational performance and customer satisfaction. However, only organizational innovation is correlated with innovative performance due to the intense competition within Malaysia manufacturing sector caused the firm age has no correlation with product, product and marketing innovation.

CONCLUSION

Results in this paper showed that innovation had a profound impact on products and processes within the organization, especially on manufacturing companies in Malaysia. However, this study shows the opposite conclusion on marketing and organizational innovation. The result states that there was no significant relationship of marketing and organizational innovation on innovative performance. Additionally, the companies' year of establishment has significantly influenced on the correlation between organizational innovation and innovative performance. Based on all the results obtained from this study, it can be concluded that the manufacturing companies in Malaysia should introduce marketing and organizational innovation and add more values to the existing product and process innovation in order to increase their innovative performance.

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