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MARKET ORIENTATION AND FIRM PERFORMANCE OF MANUFACTURING SECTOR IN MALAYSIA: THE MODERATION OF INNOVATION

Sitinor Wardatulaina Mohd Yusof[1], Juhaini Jabar[2], Izaidin bin Abdul Majid[3], Muhammad Imran Qureshi[4], Rosalina Torres Ortega[5]

[1,2,3,4]Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka, Malaysia

[5]School of Business and Economics, Linnaeus University, Växjö, Sweden

Corresponding Author[1]wardatulaina@utem.edu.my

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ABSTRACT:

Purpose - This study aims to explore the understanding of market orientation of manufacturers in manufacturing sectors with firm performance in the role of accessing the innovation as moderating construct.

Design/methodology/approach - The research framework of market orientation was developed through MKTOR and MARKOR measurement. The data was collected from a sample of 321 manufacturers in Malaysia using questionnaire on six-point Likert scale. By using quantitative method, the collected data was examined using multiple regression analysis.

Findings The impact of market orientation on company results has been confirmed by the moderating position of innovation. The cultural component significantly affects firm performance, however not the behavioral component as a whole. Out of 11 hypotheses, four were not supported and the rest are supported which signifies the significant impact of market orientation and innovation in this study.

Research implications – The results of this study will benefit the manufacturers by providing a comprehensive analysis and framework on the effect of market orientation practices implementation towards manufacturing performance.

Originality/value This study was combining and analyzing both components of market orientation; behavioral and cultural holistically in a study, which rarely done by previous scholars.

INTRODUCTION

Globalization leads a high demand from manufacturer to consumers to improve quality, service ability and versatility in competitive costs as well as manufacturing industry. Broadly, Malaysia's manufacturing industry has expected to grow and expand. The innovation transformation view remains competitive in the manufacturing industry, while the manufacturers need to clearly understand their market orientation through customer needs and wants,

really understand their competitor strategy to compete and as well as create excellence firm performance.

Notwithstanding the significant and successful developments in the growth of the market orientation principle, there is undoubtedly a gap in the studied on market orientation. In particular, the characteristics of effective market-orientation programs are unclear (Bamfo en Kraa 2019). Market orientation for firms follows the marketing principle, which states that firms should identify the consumer needs and wishes of their specified customer to meet market goals and business objectives, and provide value that is more effective and productive than rivals (Kirca, Bearden, en Roth 2011). The market awareness of market orientation seen as an industry approach to rapid changes in customer needs and preferences to improve the business performance. According to Gaur, Vasudevan and Gaur (2011) firm with weaknesses as well as insufficient tools of the owner-manager in operations used, resulted a hinder effectiveness of marketing execution. Hence, the result prevents organization of manufacturing firm proactively responding for their business demands. Meanwhile, marketing paradigm implies that companies with long-term strategic goals ought to satisfy the consumer's need and want to increase the income of the company (Kohli and Jaworski, 1990). The challenges described above include the implementation of a market orientation and the adoption of innovation in the Malaysian manufacturing sector.

Market orientation and performance importance has been thoroughly studied with researchers reaching consensus on the good outcome. Previous studies illustrate the business focus of large enterprises while ignoring small businesses (Blankson C 2005). In addition, innovation is also essential for manufacturers to succeed in both industrial and technological development. The significant factors that consider for the firm performance is internationalization and innovation (Chien-Huang, Ching-Huai, en Danny 2008). In innovation, the production process has changed periodically, it has taken advantage of third-platform technology to produce products until

today (Gaur en Gaur 2009). Innovation would affect the company's business results, resulting in intense competition in the modern market climate because of the rapid technological shift. Innovation has become a vital position for organizations to survive in a competitive environment in order to improve their performance and customer satisfaction and thus the basic principle of market orientation to drive them to improve significantly (Blankson C 2005; Verhees en Meulenberg 2004).

Furthermore, the various establish findings found in previous research indicate in the hypothesized relationship between market orientation, firm performance and innovation effect in the developing countries like Malaysia, the in deep research need further explore in Malaysian manufacturers industry. The basis of the study as an integrated system process in term of conceptualization and operationalization constraints. The challenges in manufacturing industry firms in Malaysia such as owner or managers lacking in marketing skills, the sources are limited and lacking in expertise of formal marketing research be affect the business choices. Throughout the following situations, the aim of this study was to explore the understanding of the market orientation of firms in manufacturing sectors with strong performance in the context of linking to innovation as a moderating construct. Therefore, it argued that a deep understanding of the concept of market orientation would allow manufacturers

to meet the changing requirement of current customers and influence new market prospects at international level to ensure both success and modern industrial development.

In addition, studies examined the important role performed by Malaysian producers in the manufacturing sector. For instance, a study Gaur, S. S., Vasudevan, H. and Gaur, A. S. (2011) had covered the effect of market orientation and manufacturing performance, but not covered the moderation relationship. This study proposed the innovation variable as moderating variable suggested by Martín-de Castro, G. et al. (2013) and Zhang.J. and Duan,Y. (2010) as an outcome variable, thereby influencing the strength and direction of the relationship.

In summary, while extensive attention has been given to the phenomenon of business orientation and its impact on organizational performance and was recognized as an important subject in marketing theory and practice, other researchers have developed and evaluated frameworks differently, cause in a number of assessments and consequences of firm performance. Based on argument in this section, this study has highlighted several issues and problems that need to be investigate further since market orientation has been regarded as a key marketing paradigm that it seen as a source of growth opportunities and key to firm success performance (Ramendran 2016).

LITERATURE REVIEW

Market Orientation and Firm Performance

Various studies have explored the correlation between market orientation and firm performance in medium and large businesses. Barret and Weinstein (1998) find that promoting the effect of corporate management and market orientation is positively associated with business performance through analyzing the effects of market orientation on business performance in larger manufacturing companies (Qureshi et al. 2015). The research by Barrett and Weinstein (1998) indicates that an emphasis on market orientation is a critical factor in large companies ' business performance, while other in the machine tool manufacturing, healthcare and banking sectors, there have been highly positive impacts on market orientation (Balakrishnan 1996, Han, Kim and Srivastava 1998, Kumar, Subramanian et Yauger 1997).

Furthermore, in Pelham's (2000) studies, the relationship between market orientation and performance is positively related to the growth-share, marketing effectiveness, and gross profit in small and medium manufacturing firms. The study proposed that market orientation is a more competitive advantage in small firms compare with the larger firms. On the other side of discussion in Preston (1996) indicated business culture dedicated to continued creation of consumer value and had a positive impact on the performance of business returns on sale, growth in sales and longevity. Also in the context of the machine tool industry, Balakrishnan (1996) also establish a positive relationship between market orientation and business performance. Hence, in view of the above, we may deduce that hypothesis (H):

H1: Market orientation will positively affects firm performance.

Cultural Components and Firm Performance

Narver and Slater (1990) developed a measurement scale of Market Orientation (MKTOR) of three cultural components, which is competitor orientation, customer orientation, and inter-functional coordination and it found a positive relationship to business performance (Kirca et al., 2005; Selmi, N. and Chaney, D. 2018; Alotaibi and Zhang, 2017). Grinstein (2008, p. 124) resulted that "there is no single strategic orientation leading to higher performance in all situations, and those other orientations beyond (market orientation) are also connected to higher levels of organizational performance." Furthermore, Subramanian and Gopalakrishna (2001) argued that a competitive-oriented company tend to use its data and information to achieve manufacturing efficiency. Consumer orientation assists to establish the consumer delivery preferences, competitor orientation assists benchmark against rivals to meet customers more efficiently, and inter-functional ensures that delivery goals connected to all relevant parties (Morash and Clinton, 1998). These inter-functional communication helps the smooth and speedy flow of information within the organization, ensuring better firm performance (Tyler and Gnyawali, 2002). Given the above discourse, we hypothesize that a firm having a more prominent level of customer orientation, competitor orientation, and inter-functional coordination will perform better, and it prompts the formulation of the following hypotheses:

H2: Cultural components of market orientation will positively affects firm performance.

H2a: Customer orientation of cultural components will positively affects firm performance.

H2b: Competitor orientation of cultural components will positively affects firm performance.

H2c: Inter-functional coordination of cultural components will positively affects firm performance.

Behavioral Components and Firm Performance

Kohli and Jaworski (1990) introduce three market orientation components, namely intelligence generation, intelligence dissemination, and organizational responsiveness. According to them, intelligence generation will never look in a narrow context whereby a company obtains knowledge on the customer's needs. Intelligence generation must obtain information from other exogenous factors outside the organization system, such as government regulation, technology, competitors, and environmental forces.

According to Agarwal et al. (2003) while judgmental performance measures are crucial to profitability, objective performance measures in service organizations provide a path to profitability. Likewise, a United Kingdom manufacturing and service companies studies conducted by Appiah-Adu and Singh (1998), Martin-Consuegra and Estebon (2007) and Mamat and Ismail (2011) show a positive and significant linkages between intelligence and measures of performance. Extending on the research of Kohli and Jaworski (1990) and Narver and Slater (1990), Pelham (2000) and Pelham and Wilson (1996) established an integrated model to assist in assessing the potential impact of market orientation on small business performance. Study by Pelham (2000) and Pelham and Wilson's (1996), they suggested that the company required to understand the need of customer for intelligence production and the strengths and shortcomings of

information distribution by rivals. Studies have shown that the most influential elements market orientation were a quick response to negative customer satisfaction information, consumer value-based approaches, immediate response to competitive challenges, and rapid identification of changes in customer product preferences.

Moreover, Greenley (1995) studied 240 UK companies and found no direct impact on company performance of a market orientation. On their part, Jaworski and Kohli (1993) found a positive relationship with measurements of judgmental performance not between market orientation and objective performance measures.

The word market orientation used by Kohli and Jaworski (1990), refers to the implementation of marketing concept. Therefore, a market-oriented organization is one whose actions are consistent with the marketing concept. Kohli et al. (1990) suggested profitability as a result of market orientation, as well as positive customer attitudes and behaviors. They found that orientation of the market leads to happy customers will recommend to other potential customers and return to the firm. Jones (1995) found in his study of the owners/managers of small businesses that a customer orientation helped them gain new customers' business through positive "word mouth" advertising. A significant and positive relationship between the markets. Other things being equal, the firm that has implemented more excellent market orientation, relative to its competition, will achieve superior sales growth and sales (Narver and Slater, 1993). Therefore, the study hypothesizes:

H3: Behavioral components of market orientation will positively affect firm performance.

H3a: Intelligence generation of behavioral components will positively affects firm performance.

H3b: Intelligence dissemination of behavioral components will positively affects firm performance.

H3c: Organizational responsiveness of behavioral components will positively affects firm performance.

Innovation and Firm Performance

Covin and Miles (1999) indicated that organizations are seeking competitive advantages for creative businesses. Companies sometimes can prevent from price competition by providing innovative products/services, access new marketing and create new demand, and increases the business performance of the company as indicated by financial metrics such as turnover, profit, and stock price; and develop strength in strategic metrics such as reputation, loyalty, and satisfaction (Gupta and Zeithaml, 2006). Innovation also helps the effort of company to protect rivals from reaching markets, strengthen its competitive dominance, while improving its durability (Porter 1980). Other recent studies demonstrating a strong relationship with innovation and business performance comprise Cheng, Yang, and Sheu (2014), Grissemann, Plank, and Brunner-Sperdin (2013), and Rosenbusch, Brinckmann, and Bausch (2011).

In literature, an essential context of innovation measures based on innovative ideas and practices as well as innovation outputs. Some studies described the

use of activities in R&D as well as expenses as innovation measurement, whereas other scholars adopt trademarks as the measurement for innovation practices (Ahuja and Katila, 2001). The innovation is mostly for measures that are restrictive in the scope of firms in a developing country, including Malaysia, in which most firms are not engaged in organized research and development activities. Therefore, this thesis used technological innovation, innovative ideas, knowledge-intensive technology, facilities, processes, and systems to evaluate firm's innovativeness. As such, this study proposed the following hypothesis:

H4: Innovation will positively affects firm performance.

Moderating Effects of Innovation on the Relationship between Market Orientation and Firm Performance

Many research suggested that company's innovativeness and performance are closely related (Hoq and Che Ha, 2009; Hult et al., 2004; Lin Peng, and Kao, 2008; Rahab, 2012; Tsai and Yang, 2013). For these writers, organizations with high levels of innovation will perform better than those with low levels of innovation (Doucouré, B., Fort, F. and Dankoco, I. S. 2018).

The impact of market orientation on innovation has recognized as necessary. Recently, recommendations was made by Hurley and Hult (1998) regarding incorporation of innovation-related structures into market orientation research. In an empirical study of a primary agency in the US federal government's market orientation, innovation and organizational learning, Grinstein (2008) found that market orientation was an antecedent to innovation. Hult et al. (2004) concluded that the innovative strategies of the business derive from its emphasis on market orientation. Consequently, market data collection result will exchange information between the different company department and respond to business market requirements.

Market-oriented companies have provided a source of new ideas for change, improvement, and encouragement to adapt to the environment, according to Shoham et al. (2012). Kohli and Jaworski (1990) perceived market orientation as a continuous innovative activity whereas, in terms of changes in customer needs, market orientation required innovative approaches and activities. Their business focus approach has not, though, analyzed creativity buildings individually. Several recent innovation studies have focused mainly on product innovation, primarily at the corporate level, because the innovation of product is generally known as critical to business success (Troy, Szymanski, and Varadarajan, 2001). Brentani (2001), however, argued that innovation entailed creating a new product, service, or cycle. The concept of innovation for this study widely addressed, encompassing the development of new products or services, new methods of marketing growth, and the formation of new markets. The evidence showed the impact of market orientation on innovation in different firms, including production and service companies (Atuahence-Gima, 1996; Harryson, 1997; Lukas and Ferrell, 2000). However, the market orientation influence on innovation in a manufacturing company in Malaysia earned less publicity.

Additionally, in such a level of difficulty and in-depth knowledge is achievable in large company instead of in small company, incremental change is the risk of becoming more relevant in the scenario of the business firm. A market-oriented manufacturing firm typically work in the areas of customer orientation,

competitor orientation, inter-functional coordination, market intelligence, intelligence dissemination and organizational responsiveness which improves in production's understanding about customer-expressed needs, and therefore providing a relatively changed product to their customers and improve their process (Tsai and Yang, 2013). Due to resources are limited and inadequate infrastructure support, the manufacturing firm may not be able to introduce new processes or products at all times to meet customers' latent need. Nevertheless, they can work for the fulfillment of customers' expressed requirements and may improve their performance. Hereafter, we feel that there is an innovation's moderating effect in market orientation and strong performance relationships. As market orientation is the constituent of customer orientation, competitor orientation, inter-functional coordination, market intelligence, intelligence dissemination, and organizational responsiveness dimensions; later, by going through a disaggregated manner, we hypothesize as follows:

H5: Innovation will positively moderates the relationship between market orientation and firm performance.

RESEARCH METHADOLOGY

Sampling and Data Collection

The data collection method of this research is solely using; survey questionnaires on six-point Likert scale. Each manufacturing firms in the sample are regards as the unit of analysis for this research. They comprises from seven major manufacturing industries in Malaysia; (1) food beverages and tobacco, (2) textile, wearing apparel, leather and footwear, (3) wood, furniture, paper products and printing, (4) petroleum, chemical, rubber and plastic, (5) non-metallic mineral products, basic metal and fabricated metal products and (6) electrical and electronics products, and finally from (7) transport equipment and other manufacturers . The key informant for this study were comes from senior executives, managers, and the top management within the firm. The self-administered survey questionnaire approach was used to collect the data with regard to respondent's perception of the firm's market orientation towards firm performance together with innovation in firm. A total of 700 questionnaires were distributed to the manufactures with 330 sets were returned, and 321 responses were realized to be useful for analysis, giving response rate of 46 %. Nine questionnaires were discarded due to straight lining responses and missing values for some cases that amount of more than 50 % (Krejcie en Morgan 1970). Data obtained from those 321 firms were analysed through the SPSS statistical program and proposed hypotheses were tested through correlation and regression analyses.

Measures

MARKOR, developed by Kohli et al. (1993), and MKTOR, developed by Narver and Slater (1990), are the two most widely used scales for measuring market orientation. MKTOR is a 14-item measure of market orientation and consists of three sub-constructs: a) Customer orientation (6 items), b) Competitor orientation (4 items), and c) Inter-functional coordination (4 items).On the other hand, MARKOR represents the market orientation practices/ cultural approach and tests a set of activities and behaviors defined by management. The original MARKOR measure is a 32-item scale, of which 10 items captured market intelligence generation, 8 items captured intelligence dissemination, and 14 items captured responsiveness (Jaworski and Kohli, 1993). The most common use of the MARKOR behavioural / attitude scales

was a metric index confined to three interrelated behavioral parameters, a) Intelligence generation, b) Intelligence dissemination and, c) Organizational responsivity (Felgueira and Rodrigues 2012). Thus, MARKOR reduced during development to 21 items.

On the other hand, the scales developed by Menguc and Auh (2006) and Han, M. and Celly, N. (2008) adapted to innovation. Additionally, items used to rate attainment of firm performance based on the surveys developed by Crick (2009), Knight and Cavusgil (2004), and Zhou and Wu (2014).

Measure Validity and Reliability Analysis

Factor and reliability analysis conducted to measure the validity and reliability of the independent variables (market orientation), dependent variables (firm performances), as well as the moderating variable (innovation) by using Principle Component Analysis (PCA). In this study, Cronbach's coefficient alpha used to measure the reliability of a set of two or more construct indicators (Cronbach, 1951). The alpha coefficient value of more than 0.70 classified as acceptable (Nunnally and Bernstein, 1994), and more than 0.80 is good (Sekaran and Bougie, 2009). Nevertheless, it is considered acceptable, with a coefficient value of 0.60 (Sekaran, 2003). Following the recommendations, this study has developed reliable constructs since the reliability analysis produced Cronbach's alpha values in the range of 0.68 to 0.89 as shown in Table 1. Hence, based on the reliability analyses, the measurements used in the study were consider reliable and appropriate for further analyses.

Table 1: Cronbach's alpha correlation

Variables	No. of items	Cronbach's Alpha
Market Orientation		
Customer Orientation	5	0.83
Competitive Action	3	0.79
Inter-functional Coordination	4	0.68
Competitor Orientation	4	0.73
Intelligence Dissemination	4	0.78
Organizational Responsive	3	0.79
Intelligence Generation	4	0.74
Innovation	7	0.83
Firm Performance	14	0.68

4.RESULT AND DISCUSSION

Demographic Analysis

This study first examined the gender of respondents under demographic profile items. Out of 321 respondents, 116 is female while 205 signifies male managers and senior executives. In regard with the year when the firms were created, the highest percentage comes from more than 25 years of establishment (37.4 %), follows by four to 10 years and 11 to15 years (15.3 %), 16 to 20 years (13.7 %), 21 to 25 years (10.3 %) and lastly 8.1 % for one to three years of establishment.

The results indicated that 151 firms have more than 201 full time employees, follows by 47 firms, 44 firms, 38 firms, 26 firms and 15 firms for the respectively number of permanent employees (81 to 150), (11 to 50), (151 to 200), (51 to 80) and less than 10 employees. This

implies that the firm size ranging from micro, small, medium and large firms as categorized by SME Corporation. As for active years of operation in business, the findings show that for more than 25 years, approximately 43.6 % of respondents had been with the current firm. The rest are accounted for 16.8 %, 10.9 %, 11.8 %, 9.3 % and 7.5 % respectively.

The questionnaires were distributed proportionately among manufacturing industries, where total usable responses received are 321 respondents. The distribution based on the industries were; food beverages and tobacco (10.3%), textile, wearing apparel, leather and footwear (23.1%), wood, furniture, paper products and printing (11.8%), petroleum, chemical, rubber and plastic (15.3%), non-metallic mineral products, basic metal and fabricated metal products (5.9%) and (6) electrical and electronics products, and finally from transport equipment and other manufacturers (19.6%).

Validity and Reliability Analysis

The results of the factor analyses have led to slight changes of current theoretical framework with regard to market orientation and firm performance in this study. The analyses revealed the existence of seven factors instead of six factors to measure the concept of market orientation, whereas for firm performance, there are two factors to measure the concept. Market orientation was categorized into seven dimensions of customer orientation, competitive action, inter-functional coordination, competitor orientation, intelligence dissemination, organizational responsive and intelligence generation. The construct of competitive action was originally measured under the construct of competitor orientation. After factor analysis conducted, the construct divided into two groups which supported by the study of Narver and Slater (1990) and Mwangi (2016) whose elucidated that firms must understand and exploit their local and external environment in order to be competitive. Revised research framework as shown in Figure 1.

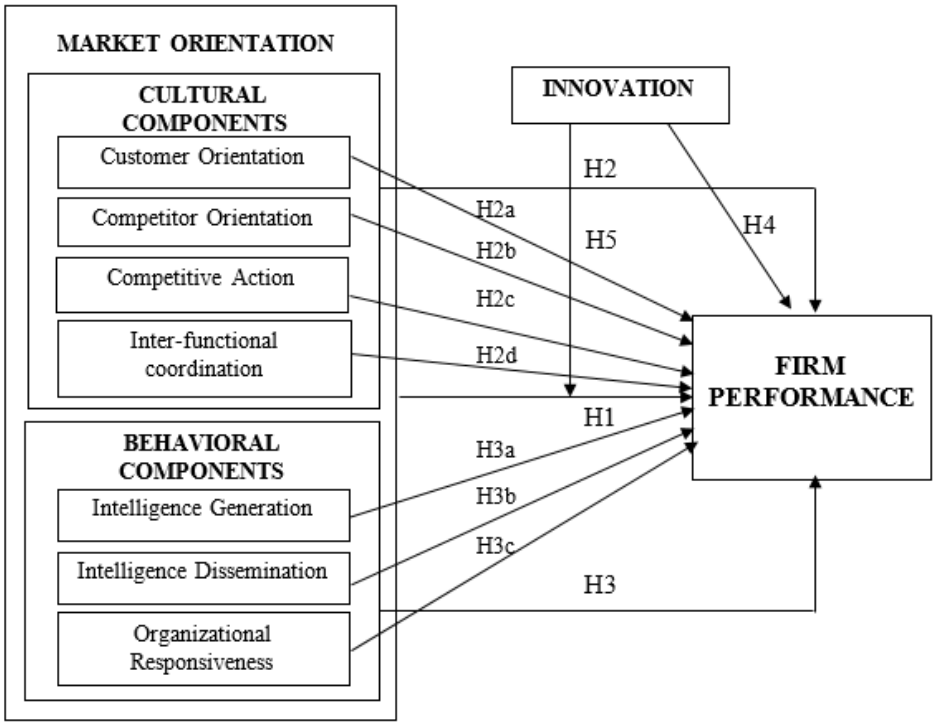

Figure 1: Research framework

Pearson's Correlation Analysis

Table 2 shows the result of Pearson's correlation analysis. According to Hair et al., (2010), the linearity relationship between two variables could be tested with Pearson's product-moment correlation test. Therefore, this study conduct correlation analysis in order to identify the strength and linear relationship direction of variables (Gaur en Gaur 2009). Most of the relationships were significant at $p < 0.01$, only a few relationships were significant at $p < 0.05$; Competitor Orientation and Intelligence Generation ($r = 0.11$), Intelligence Dissemination and Firm Performance ($r = 0.19$), Organizational Responsive and Innovation ($r = 0.12$). Competitor Orientation and Innovation has the highest positive relationship, ($r = 0.58$, $p < 0.01$) whereby indicated that a high level of competitor orientation lead to a high level of innovation of the firm. Intelligence Generation and Innovation scored the second highest relationship ($r = 0.50$, $p < 0.01$), follows by Competitive Action and Firm Performance ($r = 0.49$, $p < 0.01$) and between Competitive Action and Innovation ($r = 0.48$, $p < 0.01$). The maximum value of Pearson's r of every set of variables should not higher than 0.85 (Hair et al., 2010). Results depicted in Table 2 specified that multicollinearity among independent variables is not exist in this study due to none of the squared correlations were higher than 0.85. As such, this study confirmed that multicollinearity is not an issue in this research.

Table 2: Pearson's Correlation between variables

	Mean	Std. Dev.	CUO	COA	IC	COO	ID	OR	IG	INNO	FP
CUO	4.70	0.54	1								
COA	4.24	0.91	.45**	1							
IC	4.51	0.55	.37**	.43**	1						
COO	4.52	0.60	.44**	.28**	.46**	1					
ID	4.82	0.68	.42**	.34**	.32**	.44**	1				

OR	4.19	1.17	.32**	.38**	.30**	.40**	.37**	1			
IG	4.84	0.66	.31**	.11*	.29**	.46**	.27**	.46**	1		
INNO	4.48	0.61	.42**	.48**	.33**	.58**	.13**	.12*	.50**	1	
FP	4.49	0.28	.24**	.49**	.36**	.12**	.19*	.22**	.03**	.39**	1

Source: Computed data analysis

***Note*:** **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed). CUO = Customer Orientation, COA = Competitive Action, IC = Inter-functional Coordination, COO = Competitor Orientation, ID = Intelligence Dissemination, OR = Organizational Responsiveness, IG = Intelligence Generation, INNO = Innovation, FP= Firm Performance

Hypotheses testing

Hypotheses testing is a method for testing a claim or hypothesis about a parameter in a population, using data measured in a sample. In this method, we test some hypothesis by determining the likelihood that a sample statistic could have been selected, if the hypothesis regarding the population parameter were true (Ho 2019). Multiple regression and correlation (MRC) methods form a flexible family of statistical techniques that can address a wide variety of different types of research questions of interest to professionals (Hoyt, Leierer, en Millington 2006). A major reason that MRC techniques are so attractive to researchers is their flexibility: MRC may be used to test hypotheses of linear or curvilinear associations among variables, to examine associations among pairs of variables controlling for potential confounds, and to test complex associations among multiple variables (such as mediator and moderator hypotheses) (Hoyt et al. 2006). As such, this study utilize the technique in order to test the relationship among multiple variables in the model. Table 3 shows the summary of multiple regression analysis performed in the study.

Relationship between Market Orientation and Firm Performance

The results showed that market orientation dimensions have a significant relationship with firm performance (β=0.618, p=0.000), thus, H1 is supported. The adjusted R2 of the model is 0.436, which indicates 43.6% of the variation in firm performance among manufacturing firms is explained by the market orientation. The results are consistent with previous studies that suggested the market orientation leads to superior firm performance; Barret and Weinstein (1998); Pelham's (2000); Najib and Kiminami (2011); Saunila (2014); Vazquez-Avila (2014); Herman et al., (2018) and Udriyah, Tham, J. and Ferdous Azam, S. M., (2019). This relationship is based on the assumption that market-oriented firms are better equipped to satisfy customer needs and preferences, and subsequently perform better than non-market orientation firms. In addition, a review of the market capability literature by Kamboj and Rahman (2015) also supports this finding. The study revealed a positive relationship between "doing great" in marketing capability dimension and business performance. However, the relationship between marketing capabilities is complex and some activities had a negative impact on the present financial performance but are expected to have positive performance in the future (Vokoun and Píchová, 2020). As such, this finding also highlighted that manufacturing firm's capability to integrate diverse internal resources and market capabilities will contribute towards

continuous firm's development and sustainable profit. This research also proves that the interaction among market orientation dimensions are essential drivers for manufacturing firms to achieve competitive advantage.

Relationship between Cultural component and Firm Performance

Besides, the result indicated that the cultural components of market orientation have a significant relationship with firm performance (β=0.295, p=0.000), which supported H2. Further, this study also performed the regression analysis for each dimensions in Cultural Components as to examine in details each of the relationship of cultural components; Customer Orientation, Competitor Orientation, Competitive Action and Inter-Functional Coordination towards firm performance. Customer orientation (β=0.032, p=0.647) and competitive action (β=0.052, p=0.455) also has no significant effect with firm performance. Thus, H2a and H2c is not supported. However, the dimension of Competitor Orientation and Inter-Functional Coordination were supported is this study with the standardized coefficient and significant value of (β=0.148, p=0.044) and (β=0.117, p=0.048) respectively. Therefore, H2b and H2d were accepted.

The results revealed that cultural component as one construct of market orientation significantly affects firm performance in this study. Hence, this study suggested that for manufacturing firms to achieve superior performance outcomes, they need to operate on customer-led approaches, monitor the competitor strategies, enhance competitive action and strengthen their inter-functional integration. In spite of the different conceptualization perspectives the existing market orientation scales predominantly focus on the behavioral perspective (Bodlaj en Rojšek 2010). The findings of this study support that a competitive-oriented firms is likely to exhibit positive cultural orientation by using its data and information to achieve manufacturing efficiency (Subramanian and Gopalakrishna, 2001). For example, consumer orientation helps to establish the delivery preferences of consumers, competitor orientation helps benchmark against rivals to meet customers more efficiently, and inter-functional ensures that delivery goals connected to all parties involved (Morash and Clinton, 1998). As such, a market-oriented business with a tendency to reassess its cultural practices should boost its performance, better than their rivals (Zhou et al., 2007).

The cultural components of market orientation are importance especially on focusing the customer needs and wants for the long-run business performance. The need for changing and adapting cultural components were increases with rapidly changing of customer preferences and buying behavior. Therefore, firms are encouraged to constantly increase market orientation practice especially from the perspective of cultural as it is closely related to the internal and external environment of the firms as to ensure firms are able to remain competitive in the challenging business environment today.

Specifically, customer orientation has non-significant effects with firm performance. This finding may be supported that customer orientation among business leaders is not uniform and depends on the size of their

company, the style of management and the type of innovation implemented by their firms (Widelska, Jeseviciute-Ufartiene, en Tuncikiene 2018). Customer orientation ultimately requires an understanding of firm's target customers to continuously create superior value for them. This entails comprehension of what buyers currently value and how this will evolve over time in dynamic markets (Gligor, Gligor, en Maloni 2019).

Competitive action also has non-significant effects with firm performance. This finding contradict with previous studies on the relationship between market orientation dimensions and business performance (Alotaibi en Zhang 2017; Kirca, Jayachandran, en Bearden 2005; Selmi en Chaney 2018). With such findings, first, this study evidences that competitive action does not directly influence firm performance. A plausible explanation for this finding may be due to the fact that competitive action taken by firms was basically concerned to the process itself internally and externally that make it less related to the market growth performance, rather than build better relationship among key competitor (Mwangi 2016).

Relationship between Behavioural component and Firm Performance

The finding revealed a non-significant relationship between Behavioral Components and Firm Performance with R = 0.134. The adjusted R2 of the model is 0.051, which indicates 0.05% of the variation in firm performance among manufacturing firms. The variable of Behavioral Components of Market Orientation with (β=0.034, p=0.546) has a non-significant relationship with firm performance, thus, H3 is not supported. The regression results between the individual behavioral dimensions of market orientation and firm performance are proven to be mixed. Intelligence generation and intelligence dissemination were found to have a significant influence on firm performance in this study. Generally, intelligence generation is the collection and assessment of customer needs or preferences and forces that influence the development of those needs (Zhang et al. 2017). Even though there was previous researcher found non significance effect of intelligence generation and intelligence dissemination towards business performance (Jaiyeoba, Iwu, en Marandu 2018), this study however found that both dimensions of market orientation revealed positive significance effect to firm performance.

Likewise, the result is supported by numbers of researcher where they found a significant positive effect of intelligence generation and intelligence dissemination on firm's performance (Jaiyeoba 2011; Katsikea, Theodosiou, en Makri 2019; Zhang et al. 2017). The finding of this study proved that firm's profitability could be enhance through intelligence generation implemented by firms. Generally, this finding is in line with the original idea of Slater and Narver, (2000) which stated that practices associated with the market focused generation of intelligence are positively related to superior sales growth. Moreover, Rodrigues and Carlos Pinh, (2012) also found the same results on their study, and highlighted the importance of information generation towards financial and also non-financial performance of the firm. Thus, the finding suggesting that firms with a higher level of intelligence capabilities strategy could reap better firm performance compared to

their rivals. Therefore, in a dynamic environment, marketers or managers must continuously generate and disseminate the market intelligence and respond to the market forces. If a firm does not have good cooperation or collaboration among the functional departments within the firm, the market orientation strategy can be very ineffective.

Further, organizational responsiveness was found to have insignificant effects towards firm performance. It suggests that firm's responsiveness towards their customer and competitor relationship will not necessarily influence the performance of firms (Mollering 2019). This is because, firm performance of the firm's subject to other factors that more important and dominant as to compared with how one firm respond to their customer and competitor. In order to reap the benefit of organizational responsiveness on market growth performance, the firm must engage with building long term relationship with their customer and competitor (Ziggers en Henseler 2016). As such, the firms also need to reinforce their strategies for intelligence generation and dissemination as well as increase organizational responsiveness.

Relationship between Innovation and Firm Performance

The results showed that innovation have a significant relationship with firm performance with R = 0.327. The adjusted R2 of the model is 0.213, which indicates 21.3% of the variation in firm performance among manufacturing firms is explained by innovation. The variable of innovation (B=0.327, p=0.023) has a significant relationship with firm performance, thus, H4 is supported.

The result involved the relationship between innovation and firm performance from the context of Malaysian manufacturers. The degree of innovation of the manufacturing firms was measured in this thesis using technological innovation, innovative ideas, knowledge-intensive technology, facilities, processes, and systems to evaluate innovation in firms. The result revealed that innovation significantly affects firm performance in this study. Hence, this study suggested that in order for manufacturing firms to achieve superior performance outcomes, they need to embrace the innovation practice in their firms.

The results are consistent with previous studies that suggested innovation leads to superior firm performance; Rosenbusch, Brinckmann, and Bausch (2011); Grissemann, Plank, and Brunner-Sperdin (2013); Cheng, Yang, and Sheu (2014); Kraa (2016). This relationship is based on the assumption that highly innovative firms are better equipped to satisfy customer needs and preferences, and consequently perform better than lower innovative firms. Innovation also helps a firm's efforts to prevent rivals from reaching markets, strengthen its competitive dominance, while improving its resilience in competitive business environment. Therefore, Mahmoud, M. (2020) proposed to integrate innovation-related frameworks into the market-oriented analysis due to interlink between market orientations components with firm's innovativeness.

In addition, numbers of studies related to innovation literature also supports this finding. Halliday and Trott (2010) suggest that firms may be able to improve their brand competence by emphasizing

mechanisms of technology innovation or design innovation management. The study of Odoom and Mensah (2019) also revealed a positive relationship between brand orientation and innovation capabilities with brand performance. From the context of Malaysian firms, a recent study done by Haim Hilman and Kaliappen, (2015) could also support the finding of this study. The researchers concluded that hotels in Malaysia used process innovation and service innovation as their functional-level strategy, which in turn positively linked with performance. Further, innovation was positively associated with business performance, indicating a synergy between exploration and exploitation (McDermott en Prajogo 2012).

Concurrently, innovation plays an essential role in an organization to improve its performance and customer satisfaction in order to compete and survive in a competitive environment. Many studies have shown that innovation correlated with performance (Lin, Peng, and Kao, 2008; Tajudin, Musa, and Musa, 2012). In this sense, Ashrafi and Ravasan (2018) confirmed that the statistical results approve the recognized relationship, which means managers would be able to realize the paramount role of innovation as an integral part of achieving higher market performance in Tehran manufacturers. In conclusion, the market orientation and innovation will help the manufacturer to gain customer insight, generate information of competitors, employ inter-functional coordination, and employ new ideas or processes in product to improve their performance level.

The manufacturing process kept revolution from time to time, which until today, it leveraged third-platform technologies to produce products (I-scoop, 2016). Due to the rapid change of technology, the innovation will have an impact on the business performance of the manufacturer that leads to intense competition in the modern market environment. Market orientation will also have an impact on business performance because it is crucial to meet the needs and wants of the customer in order to attract them to buy and use the product.

As such, this finding also highlighted that manufacturing firm's capability to integrate diverse internal resources and market capabilities will contribute towards continuous firm's development and sustainable profit. However, due resource shortages that most of firms were facing now, it may not be sensible for firms to exploit multiple capabilities concurrently (Odoom en Mensah 2019). Firm need to reassess their internal and external resources to ensure proper allocation of innovation capabilities on the right spot. Furthermore, improves firm and learning orientation may lead firms to innovate effectively, as part of the strategy (Huang en Wang 2011). Learning orientation not only important for SME, yet also for large firms as to ensure firm's sustainability. This research also proves that the implementation of innovation are essential drivers for manufacturing firms to achieve competitive advantage.

Table 3: Multiple Regression Analysis (Market orientation, Cultural components, Behavioral components, Innovation with Firm Performance)

	Beta (B)						
	Unstandardized Coefficients	Standardized Coefficients	R	R^2	Sig	F-value	Results
Constant	0.870		0.538	0.402	0.000	6.222	*Supported*
(H1) Market orientation	0.634	0.618					
Constant	3.825		0.425	0.316	0.000	12.585	
(H2) Cultural components	0.246	0.295					*Supported*
Constant	3.783		0.619	0.138	0.004	3.967	
(H2a) Customer Orientation	-0.019	0.032			0.647		*Not Supported*
(H2b) Competitor Orientation	0.087	0.148			0.044		*Supported*
(H2c) Competitive Action	0.240	0.052			0.455		*Not Supported*
(H2d) Inter-Functional Coordination	0.065	0.117			0.048		*Supported*
Constant	4.670		0.134	0.082	0.546	0.366	
(H3) Behavioral components	0.028	0.034					*Not supported*
Constant	4.659		0.528	0.316	0.001	1.764	
(H3a) Intelligence Generation	0.150	0.165			0.035		*Supported*
(H3b) Intelligence Dissemination	0.103	0.155			0.023		*Supported*
(H3c) Organizational Responsiveness	0.031	0.059			0.327		*Not Supported*
Constant	4.876		0.327	0.213	0.023	5.249	
(H4) Innovation	0.292	0.327					*Supported*

Moderation effect of Innovation

Finally, this study used hierarchical regressions analysis (also known as sequential regression) to measure the moderating effect. The interaction effect between innovation on the relationship between the independent variables of market orientation and the dependent variables of firm performance are presented in Table 4. It was hypothesized that innovation moderates the relationship between market orientation and firm performance. The direct effect of market orientation on firm performance explaining 41.9% of the variance. After the entry innovation in the second block, the total variance explained by the model as a whole was remained the same as the first model which is 41.9%. In block 3, the interaction terms were entered, which resulted in additional variance explaining up to 45.6%.

Table 4: Moderation Effect of Innovation on Market Orientation and Firm Performance

Variables	Direct effect on Firm Performance		Direct and interaction effect on Firm Performance	
	B	Sig.	B	Sig.
(Model 1) Independent variables				
Market Orientation	0.634	0.000	0.478	0.001
(Model 2) Interaction variables				
*(H4) MO*INNO*			0.656	0.000
R^2	.419		.456	
Adjusted R^2	.402		.411	
F-change (Sig.)	6.222***		4.272***	
N	321			

Note: ***significant at the 0.001level,
MO= Market Orientation, INNO = Innovation

A thorough scanning of the interaction terms between Innovation x Market Orientation ($\beta = 0.656$, $t = 0.687$, $p = 0.000$) indicate that innovation was significant at $\alpha = 0.1$ level. Therefore, H5 is supported in this study. The F-change value in the test showed that the main effect (Model 1) and the independent main effect (Model 2) were both significant. The significant F-test revealed that the relationship between the dependent variable and the independent variables was linear and the model significantly predicted the dependent variable.

In summary, innovation moderates the relationship between market orientation and firm performance. The level of innovation implementation in firms is divided into two groups namely low innovative firms and high innovative firms based on the generated statistical value from SPSS. The rate of change for innovation on the relationship between market orientation and firm performance is stronger when the innovation level is high as compared to the low level of innovation. Further, the high level of market orientation had a larger difference of mean for firm performance as compared when the innovation at low level. For firms which have high level of market orientation and innovation, the positive changes in firm performance is substantial. In other words, the implementation of market orientation has a stronger effect on firm performance when the level of innovation is high.

Further investigation of moderation effect thru interaction terms of market orientation and firm performance signifies that the implementation of market orientation has a stronger effect on firm performance when the level of innovation is high. This result is supported by Zhang and Duan (2010), where in a highly competitive market, market orientation ensure firms to provide distinguished innovative contributions and superior customer value, therefore gain competition advantage and enhance market growth. In addition, an innovative firm may utilize creativity to gain distinction by offering specific customers with different products and services, which the innovation practices encourage firms to succeed. Constant improvement in goods, systems, and processes in innovation contributes to improvement, resulting in higher productivity of innovative firms (Porter, 1988; Lazonick, 2006). In this case, a firm which has higher innovative practice in the firms experience the increase of growth performance as compared to low innovativeness firms (Udriyah, Tham, en Ferdous Azam 2019). The high innovative firms are able to efficiently organize their internal and external resources in order to generate

superior value to their customers and competitors (Dekoulou en Trivellas 2017; Ozkaya et al. 2015; Ramadani et al. 2019). The superior value could be offer in many forms such as better customer service, more quality products and product or idea for innovations in firms, which contributes the growth of market share of the firm.

Moreover, highly innovative firms lead to a better profitability due to they are able to assess the strength and weaknesses of their key competitor and properly coordinates the data and information within and outside the firms (Chin, Lo, en Ramayah 2014; Udriyah et al. 2019). This is because, employees are regarded as a valuable asset to the firms, they were just not only peoples who provide goods or services to customers, but they work as a team that coordinated into each functional area in firms. In addition, greater market orientation is a source of internal social capital, which mitigates the costs while at the same time highlights the benefits associated with top management diversity (Auh en Menguc 2005). The result also advocates that firms will experience higher profitability with the market intelligence generates within the firms as innovation was included in the relationship. Achieving a superior customer value and profitability requires competence in multiple intelligence generation strategies (Slater en Narver 2000). Therefore, enhancing the capabilities of firms to innovate in terms of better understandings of customer needs and the available technological options of the competitive market dynamics would be helpful for the manufacturing firms to achieve the overall profitability for long term competitive advantage (Alhakimi en Mahmoud 2019).

Further, the organizational responsiveness of the firms towards profitability can also be moderated by innovation. Studies conducted by Hendar, Nurhayati and Sugiyarti, (2018) and Pehrsson (2019) indicated that innovativeness and responsiveness are directly and positively associated with the performance of firm. Therefore, a highly innovative firms should be able to make organization responses better towards organizational changes in the context of market orientation and perform better compared to lower innovative firms. From this findings, it is concluded that highly innovative firms will obtain extra market orientation knowledge from internal and external channels, and by empowering innovation in the market orientation process, it improves the firm's performance.

The important theoretical contributions made by this study was combining and analyzing both components of market orientation; behavioral and cultural holistically in a study, which rarely done by previous scholars. Numbers of study has utilized the theory in isolated means, either market orientation in general or focus only one theory in their studies; (Brower en Rowe 2017; Chin et al. 2014; Masroor ALAM 2010; Oduro en Haylemariam 2019; Ozkaya et al. 2015; Rodrigues en Carlos Pinho 2012; Tschida 2010; Udriyah et al. 2019; Zan en Tomlinson 2018).
Consequently, the market business orientation associated, either directly or through a moderating effect. The number of studies on market orientation and innovation concentrates on developing countries. The present study based on the scenario of the manufacturing firms in Malaysia and thus helps to increase the maturity of the relationship between researched buildings indicative of a changing economic context. Also, there is appropriate research, but few support significant relationships, and few support an insignificant link between market orientation and performance (Deng and Dart, 1994; Slater and Narver, 1998; Grewal and Tansuhaj, 2001; Baker and Sinkula, 1999). It is, therefore, difficult

to draw a particular conclusion on the state of the relationship between market orientation innovation and performance. Among them, the most crucial cause can point to the contextual differences that may affect the relationship between variables. Nevertheless, the present study addresses this theoretical gap to fill.
Generally, this research has pointed out the need for market orientation practice and innovation as to ensure firms are able to generate and enhance their manufacturing performance. Above all, the competitor orientation, inter-functional coordination and intelligence generation and dissemination were the most significant predictor of manufacturing performance in this study. The component of innovation also plays an important role as a moderator on the relationship between market orientation and performance of the firms. The holistic measurement for all constructs in this study are based on quantitative means. Hence, it is recommended for more thorough and qualitative investigation in order to gain knowledge and understanding for the relationships among market orientation practices, innovation capability and firm performance. The current research urges for further in-depth clarification on the results conclusively in the future research undertakings. Accordingly, it could be concluded that manufacturing firms in Malaysia are still facing a tough stage in realizing the implemented market oriented practices and abundant effort of developing innovation capability in the firm towards excellence performance achievements.

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