Effect of Market Orientation on Firm Performance among Malaysian SME’s in Manufacturing Sectors

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Abstract:

The objective of this research is to examine the effect of market orientation on firm performance of the Malaysian SME’s manufacturing sectors. Market orientation is defined as customer orientation, competitor orientation, and inter-functional coordination (Narver & Slater, 1990). This study also employs innovation as mediating variable of the market orientation and firm performance. A quantitative approach was adopted to conduct the research. Data for all the study variables has been collected through self-administered survey questionnaires and have been analysed using SPSS 21.0 software package. Based on the outcome of the study, it is found that the firm performance of the Malaysian SME in manufacturing sectors is positively related to the market orientation. The study also found that, innovation partially mediates the relationship between them. This suggests that SMEs in manufacturing sector to adopt market orientations according to their needs and the external conditions they operate in. Overall, finding of this study improve our understanding on market orientation and firm’s performance of SMEs in Malaysia. Based on the findings, the theoretical and practical implications of the study are also discussed.

Keyword: market orientation, firm performance, Malaysian’s SME, manufacturing sector

1.0 Introduction

Many countries, including Malaysia are dominated by a large proportion of small and medium enterprises (SMEs). SMEs in Malaysia contributed to 50% of gross domestic product (GDP) and 65% of employment rate. There are about 98% or 645,136 of business establishment in Malaysia are categories under SMEs (National SME Development Council, 2014). SMEs are expected to be worth RM 120 billion or 50% of total production in the manufacturing sector by 2020. It’s also forecasted to be grown at 5.6% annually and contribute 28.5% to gross domestic product (GDP) in 2020 with the total investments of RM412.2 billion (RM27.5 billion annually). However, there's a challenges for SMEs in Malaysia. The fast changing in technology and resources capabilities has become the major concerns for the SMEs (Ramayah, Omar, Yeap, & Leen, 2012). The government has spent large amount of money to enhance the innovation and technology adoption activity among SMEs. The sum of 400.7 million ringgit was allocated to SMES to actively involved in promoting innovation and technology in their operation (NSDC Annual Report, 2013). But the innovative performance of the SMEs still do not achieved the expected outcome (Saleh & Kuppusamy, 2007; Saleh & Ndubisi, 2006; Abdullah, 1999). In the increasingly competitive global market, SMEs which exert a strong influence on the economies of many countries through their ability to innovate new products and processes have been the
engine of economic growth and technological progress (Bruque & Moyano, 2007). In-depth study of Malaysian SMEs available is still limited. Most of the studies only focused on the study of personality characteristics and entrepreneurship among SME owners. The study about market orientation among Malaysian SMEs, still at the early stage (Saleh and Kuppusamy, 2007; Saleh & Ndubisi, 2006; Abdullah, 1999). This research will be the first large scale study of market orientation conducted in a developing country like Malaysia. In fact, Todorovic and Ma (2008) suggest that the complementary effect of market orientation might be more effective in developing countries, as market actions are not normally part of the business model in developing countries and those firms employing such methods may reap significant benefits over their competitors. This study considers innovation to be an effect of the orientations adopted by a business and not necessarily an orientation in itself. To date, Baker and Sinkula (1999) have conducted the only major study using innovation in a significant role as a mediating variable for firm performance. This study will replicate their study to further validate the importance of innovation.

2.0 Literature Review

2.1. Malaysian SMEs and Firm Performance

SMEs in Malaysia can be categorized into five main categories: services, manufacturing and agriculture, construction and mining & quarrying (NSDC Annual Report, 2013). The discussion in this study will be centered on manufacturing sector, to serve the specific purposes of the research. Furthermore, it was the second largest category after the service sector, with over 37,861 SME firms (or 5.9 percent of the total SMEs) involved in this sector (NSDC, 2015). The performance of SMEs in the manufacturing was fluctuated. It was 5.7 percent in year 2006, increased to 7.2 percent in year 2007. In the year of 2008, the manufacturing growth rate was declined by 0.7 percent and keep on decreased in year 2009 by –7.0 percent. It was a dramatic increased to 11 percent in 2010 and showing the declining pattern when it decreased to 7.6 percent and 6.0 percent respectively in the year 2011 and 2012 (DOSM, 2013).

According to Jaworski and Kohli (1996), firm performance is a multi-dimensional construct consisting of revenue and cost-based financial performance, customer-related performance, innovation-related performance and employee-related performance. Firm performance here is reflected by overall sales revenue, return on investment and return on assets (Baker and Sinkula, 2009). There are two types of firm performance, they are perceived firm performance or archival data (Rauch et al. 2009). This study chose to use perceived indicators to measure firm performance. A meta-analysis of studies in this field by Cano et al. (2004) found that more than 70% of empirical studies used subjective measurement of performance as their scale. Rauch et al. (2009) support this trend and argue that the relationship of market orientations to firm performance is robust, which makes it unnecessary to use complicated indicators like archival financial data.

2.2. Market Orientation and Firm Performance

Grinstein (2008, p. 115) notes that, “market orientation construct is at the heart of modern marketing and a frequently studied research subject”. Market orientation refers to the extent to which the firm’s strategies and operations are ready to respond to market demands and any changes in the market. Zahra (2008) suggests that firms with high market orientation are likely to
have good customer relations and create superior customer value. A meta-analyses on market orientation by Cano et al. (2004) and Kirca et al. (2005) shows that market orientation studies have been conducted in five continents involving more than 200 publications which generally support the finding that market orientation has a significant influence on firm performance. Some empirical studies have also reported that market orientation is capable of contributing to specific organisational outcomes such as innovation capacity or Innovation (Grinstein, 2008; Hurley & Hult, 1998) and financial performance (Keh et al., 2008; Moreno & Casillas, 2008; Slater and Narver, 2000; Wang, 2008). Even in the 1950’s, several researchers like Drucker (1954), McKitterick (1957) and McCarthy (1960) have identified that market orientation is greatly influenced by the marketing concept. Thus, Baker and Sinkula (2009) define market orientation as the degree of a firm’s commitment to adopt the best practices and ideas in the marketing concept. Similarly, Jaworski and Kohli (1993, p.57) argue that market-oriented firms are “those that track and respond to customer needs and preferences can better satisfy customers and, hence, perform at higher levels”.

There are two major perspectives on market orientation found in the literature since the beginning of its conceptualisation. These two perspectives emerged at about the same time during the early 1990’s. Narver and Slater (1990) developed the cultural perspective and Kohli and Jaworski (1990) chose what is known as the behavioural perspective. Narver and Slater (1990) believe that market orientation is a type of organisational culture comprised of three components: customer orientation, competitor orientation and inter-functional coordination. Customer orientation is concerned with a firm’s understanding of customer needs/preferences and capacity for continually creating products and manufacturing sectors of superior value for them (Narver & Slater, 1990). Competitor orientation refers to a seller’s understanding of the short-term strengths and weaknesses as well as long-term capabilities and strategies of both current and potential key competitors (Narver & Slater, 1990). Narver and Slater’s third component is inter-functional coordination or the coordinated utilisation of company resources in creating superior value for target consumers. Kohli and Jaworski (1990) offer a formal definition of market orientation from what they call a behavioural perspective, which sees market orientation as the organisation-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments and organisation-wide response to such information. Zhang (2008) notes that both these perspectives by Kohli and Jaworski (1990) and Narver and Slater (1990) dissect the same phenomenon. They are however different in their establishment and application. In fact, previous studies conducted by Deshpande and Farley (1998) and Matsuno et al. (2005) also show that despite their differences, both these perspectives actually represent the same underlying concept of market orientation.

Therefore, the approach in the study is to choose to overlook the purported differences argued by the two different perspectives. It must, however, be noted that this study finds Narver and Slater’s cultural perspective more suitable for SMEs (particularly for micro and small enterprises) since they do not have complex organisation structures like the ones implied in the behavioural perspective adopted by Kohli and Jaworski (1990). Also, the value of understanding the customers and competitors implied in the cultural perspective is very crucial for micro and small enterprises.

2.3. Firm Innovation and Firm Performance
Basically, innovation results from the achievement made by the firm in developing new products, manufacturing sectors and processes. It is believed that innovative firms are better performing than their competitors (Certo et al. 2009). Lumpkin and Dess (1996) define innovativeness as the propensity of a firm to adopting new ideas, creative processes and experimentation which lead to new products, manufacturing sectors or technological processes. Lumpkin and Dess (1996) note that the idea of innovativeness was first associated with entrepreneurship by Schumpeter (1942) who emphasised the role of innovation in the entrepreneurial process. Certo et al. (2009) say that an innovative entry by a firm is able to disrupt existing market conditions and stimulate new demand by enacting Schumpeter’s idea of the process of creative destruction which argues that the old technology is replaced by new technology through innovation and economic revolution.

Using innovation as a mediator can provide a clearer picture of this relationship. For example, the final output of improved sales in superior firm performance can be related to market orientation if it results from conscious actions taken to adopt innovative sales strategies otherwise the increased sales may be due to unforeseen reasons like seasonal demand for goods. There are two perspectives on innovation in the marketing literature (Hurley & Hult, 1998; Hult & Ketchen, 2001). One perspective developed by Baker and Sinkula defines it as the output of any strategy or action undertaken to introduce innovation in the firm leading to wholly new product concepts, brand and line extensions or customer service improvements (Baker & Sinkula, 2009). Another perspective developed by Verhees and Meulenberg (2004) defines innovation more broadly as a firm’s openness to new ideas. Innovating firms have been found to perform better than non-innovating firms in terms of total sales growth (Klomp & Van Leewen, 2001). This general relationship between innovation and firm performance is reported by several authors (Henard & Szymanski, 2001; Roberts, 1999; Gatignon & Xuereb, 1997).

In Malaysia, existing research shows that only 21% to 42% of the firms surveyed can be considered to be innovative (Lee & Chew-Ging, 2007). Lack of appropriate financial resources and managerial expertise has been identified as the cause of low innovation in Malaysian SMEs. There is a need to focus on innovation-related research for Malaysian SMEs. It is clear that innovation plays a major role in driving superior performance among SMEs (Rauch et al., 2009; Klomp & Van Leewen, 2010). As Dhesi (2010) argues, innovation can enable Malaysian SMEs to improve their overall performance and transform them into corporate entities with the ability to expand and compete internationally. Due to the importance of innovation, this study will integrate innovation as the mediator between the market orientation. Innovation has been used as a mediator on the effect of market orientation on firm performance in a major study by Baker and Sinkula (2009).

3.0 Methodology

3.1 The Hypotheses

Being one of the oldest concepts in the market orientation literature, market orientation has been tested in many studies and generally found to have a significant positive effect on firm performance (Jaworski & Kohli, 1993; Narver & Slater, 1990; Kirca et al., 2005, Baker & Sinkula, 2009). A meta-analysis of existing studies on the subject by Shoham et al. (2005) found that market orientation was proved to have a general direct effect on firm performance regardless of the size of the business. Baker and Sinkula (2009) argue that market orientation has been
found to have a strong direct effect on firm performance especially for smaller firms. Therefore, this study suggests that market orientation has a direct effect on firm performance of Malaysian SMEs.

**H1:** Market orientation will have a direct and positive effect on firm performance.

Although there is limited empirical research reporting on the positive relationship between market orientation, Innovation and firm performance, it is an important issue that needs further clarification. As Han et al. (1998, p. 30) argue, 'a significant void exists in current models of market orientation because none of the frameworks incorporate constructs related to innovation'. This is supported by an argument put forward by Movando et al. (2005) that firms gain their market orientation due to the success of their innovations. A study by Atuahene-Gima (1996) also support the positive association between market orientation and firm’s Innovation and Slater and Narver (1994) consider Innovation as a mediator between market orientation and firm performance since Innovation is the ‘core value of creating capabilities’. Thus, it is argued that:

**H2:** Innovation will mediate the relationship between market orientation and firm performance.

### 3.2. Research Method

This study used the established questionnaires that has been validated previously. This study chose to focus on SMEs operators in the manufacturing sectors, who were registered with the SME Malaysian Business Directory by SME Info Portal (2015). According to the public website, there are 5423 SMEs (11 July 2015) under the manufacturing sectors category and 1500 SME firms were selected with a random sampling method to identify potential respondents using a table of random numbers. Since this research is concerned with firm management/ strategy it required potential respondents to be owners of the business or from higher levels of the management hierarchy. This technique is known as purposive sampling where a certain criterion is used to filter the sample and purposefully select respondents. It is characterised by the use of judgement and deliberation to obtain representative samples relevant to the research issue (Kerlinger & Lee, 2000). In order to achieve this, the survey included a demographical question related to the position of the respondent in the company. The response rate is 31.5% (n=473) which is above the average of 20% which is normally found in survey-based research (Young 1996). This study used structural equation modelling (SEM) to analyse the relationship between market orientation and firm performance.

### 4.0 Results and Hypotheses testing

The survey questionnaire was sent to 1500 firms randomly selected from 5423 manufacturing sectors firms listed in the 2015 Malaysian SME Info Portal. The response rate was 35.2% or 528 out of 1500 firms but only 31.5% or (n=473) data were usable and representative of the target population. After checking for missing values and outliers, the final usable data stood at n=344 or 22.9% of the whole sample.
Most of the respondents (79.7%) participating in this study were business owners, there were some who assumed the joint position of CEO/owner (5.8%), while 3.5% were designated CEOs and 11% had other designations at the higher management level. This other category was made up of people in senior positions, such as supervisor, manager and senior manager. In terms of ethnicity, most respondents are Chinese (49.1%), followed closely by Malay (43.9%) and Indian (5.5%), representing the three major races in Malaysia. Apart from Malay, Chinese and Indian, other races in Malaysia include *Iban, Melanau* and *Dayak* (indigenous minorities from Sabah and Sarawak) or Indian Muslim (who mostly reside in Penang), but these made up a miniscule 1.5% of the sample profile. It seems that formal training for business is not a regular practice among entrepreneurs in Malaysia as almost half of the respondents (42.4%) had never had any kind of formal training. Briefly, nearly half of the respondents have no formal training although they possessed higher designation like the owner of the firm themselves. These respondents have formal qualifications but up to the secondary level only. This phenomenon shows that formal training and education level may not be the most important factor to become a successful entrepreneur.

The measurement properties and reliability of the constructs is presented in Table 1.0. In summary, the table presents the constructs in this study using the entire sample after data cleaning and preparation (N=344). The table reports the means, variance (Var), standard deviation (SD), correlation matrix (Pearson’s) and Cronbach’s alpha. All of the measures display reasonable Cronbach alpha levels of 0.7 and above (Cronbach 1951, Hair et al. 2006, Coakes & Steed 2008). The reliability or the inter-item consistency is within the acceptable limits specified by Cronbach (1951).

### Table 1.0: Summary of the Descriptive Statistics of the Constructs

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Var</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation (MO)</td>
<td>5.71</td>
<td>0.59</td>
<td>0.77</td>
<td>(0.926)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>4.70</td>
<td>1.07</td>
<td>1.03</td>
<td>0.501**</td>
<td>0.578**</td>
<td>0.791**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Performance</td>
<td>4.94</td>
<td>0.73</td>
<td>0.85</td>
<td>0.420**</td>
<td>0.344**</td>
<td>0.408**</td>
<td>0.400**</td>
<td>0.436**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)
Cronbach alpha is presented in the parentheses

**Hypotheses 1: Effect of Market Orientation on Firm Performance**

There would be a positive and significant relationship between market orientation and firm performance. The direct path between market orientation and firm performance was significant as it had a t-value of 3.748. This result supports the hypotheses of this study and the extant literature on the positive effect of market orientation on firm performance.

### Table 2.0: Summary of Hypotheses Testing for H1

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>t-value</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
H1: Market orientation will have a direct and positive effect on firm performance.

Hypotheses 2: Mediating effect of Innovation

There would be a mediation effect of Innovation between market orientation and firm performance. Prior to determining the mediation effect of Innovation, this study will analyse the direct effect of market orientation and firm performance. Table 3 shows the output of beta coefficient (0.50) for the direct effect of market orientation and firm performance and it has a significant effect, p-value is less than 0.001 levels (two-tailed).

Table 3.0: Output of Direct Effect

(Market Orientation \(\rightarrow\) Firm Performance)

<table>
<thead>
<tr>
<th>Label</th>
<th>Unstandardised Estimates</th>
<th>Standardised Estimates</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>MO (\leftarrow) FP</td>
<td>0.547</td>
<td>0.50</td>
<td>0.075</td>
<td>7.294</td>
<td>***</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table 4.0 shows the output of beta coefficient after the mediating construct of Innovation entered in the model.

Table 4.0: Output of Innovation as the Mediation Effect

(Market Orientation \(\rightarrow\) Firm Performance)

<table>
<thead>
<tr>
<th>Label</th>
<th>Unstandardised Estimates</th>
<th>Standardised Estimates</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (\leftarrow) MO</td>
<td>0.638</td>
<td>0.55</td>
<td>0.080</td>
<td>8.015</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>FP (\leftarrow) S</td>
<td>0.387</td>
<td>0.42</td>
<td>0.065</td>
<td>5.960</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>FP (\leftarrow) MO</td>
<td>0.301</td>
<td>0.28</td>
<td>0.076</td>
<td>3.969</td>
<td>***</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Then, the direct effect, the indirect effect and the total effect is calculated based on the output from Table 4.0

Total effect: indirect effect + direct effect
Total effect: \((\text{MO} \rightarrow \text{I}) \times (\text{I} \rightarrow \text{FP}) + (\text{MO} \rightarrow \text{FP})\)
Total effect: \((0.55 \times 0.42) + (0.28)\)
Total effect: 0.511 \(\times\) 51.10%

The type of mediation here is called ‘partial mediation’ since the direct effect of market orientation on firm performance is still significant after Innovation entered the model even if the beta coefficient for market orientation is reduced from 0.50 to 0.28. In this case, market orientation has both a significant direct effect on firm performance and also a significant indirect effect on firm performance through Innovation. Thus, the result indicates that Innovation partially mediates the relationship between market orientation and firm performance.
5.0 Conclusion and Implication

Market orientation was found to have a direct positive effect on firm performance. Market orientation refers to the firm’s commitment to adopt the best practices and ideas in the marketing concept. The feedback from the participants in this research suggests that Malaysian SMEs in the manufacturing sectors realise the value of market orientation to firm performance. This finding confirms previous studies which have shown a significant direct effect of market orientation on firm performance (Deshpande & Farley 1998; Slater & Narver 2000; Cano et al. 2004). This study gives empirical evidence to support the significance of market orientation, particularly for SMEs in the manufacturing sectors, who need to pay attention to improve their service delivery system to make sure that the manufacturing sectors meet the customer’s demand. Innovation was found to significantly mediate the relationship between market orientation and firm performance. The Hypotheses posits that when a firm adopts market orientation it will achieve Innovation which will then lead to superior firm performance. Market orientation encompasses actions undertaken to adapt to customer preference and through the creation of customer value it will drive up the output of innovation in marketing techniques, which in turn will lead to superior firm performance.

Implication for theory and literature on this topic, this research provides an understanding of how firms can gain superior performance with the proposed components of market orientation mediated through Innovation. Implication for practical guidelines about the internal actions and external factors that SMEs need to focus on to achieve superior firm performance. The study showed positive result for Innovation as a partial mediator on the effect market orientation on firm performance. In practical terms, this means that SMEs need to adopt innovative marketing strategies to better tap into customer demands.

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