

# A SEM Analysis of Environment Moderation on Market Orientation and Performance

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**Abstract:** *There has been relatively little research that examines the relationship between strategic orientations, such as market orientation and their consequences on firm performance in developing countries. This research represents an attempt to do so from the Malaysian perspectives. This research examines the relationships between market orientation and firm performance and on the role of external environment factors as a moderator between market orientation and business performance relationship. The consideration of putting moderator factors in this research allows more precise descriptions on the relationship between the two variables mentioned and the outcome of the research. Hypothesized relationships are tested using survey responses from a sample of 386 owners / managers of SMEs in Malaysia which were obtain by mail survey. The analysis method of research used SEM AMOS 18 and SPSS 17 applications. The findings show that the market orientation exerts a positive effect on firm business performance. The external environmental factors do have a moderating effect on the relationship between market orientation and firm performance. The results reported in this research while contributing to the body of knowledge also present important ground for SMEs manager in formulating and implementing strategies to improve their business performance. Research's limitations and recommendations for future research were also discussed*

**Keywords:** *Environmental Factors, Market Orientation, Business Performance, SMEs*



## 1. INTRODUCTION

This study investigates the relationship between firm capabilities affecting SMEs' performance namely market orientation. The findings and results obtained in this study may be useful to academics, managers, and policy makers in Malaysia, by providing relevant empirical supports about the relationship. In particular, this study is important to the owners or managers of Malaysian SMEs since it examines the capabilities and organisational culture in terms of entrepreneurial orientation, market orientation, and organisational innovation and whether these capabilities lead to superior business performance. Owners or managers of Malaysian SMEs need guidance and new understandings to "prudently" utilize their resources and findings of the influence of entrepreneurial orientation, market orientation, and organisational innovation on business performance could lead these managers towards better management.

SMEs management also needs guidance and new knowledge in designing and implementing an organisational culture that would put the organisation in the forefront namely through entrepreneurial orientation, market orientation, and organisational innovation. This study contributes into it by highlighting which firms' capabilities the SMEs should concentrate to maximise the firm's long-term

financial performance in Malaysia and in international markets. Due to the repeat of decline in growth, SMEs need to take serious initiatives to recover (SME Annual Report, 2011) and review their performance from time to time (Najmi, Rigas, & Fan, 2005). Earlier, Saleh and Ndubisi (2006) found that Malaysian SMEs faced many domestic and global challenges in achieving economies of scale and in competing internationally. This study believes that the situation has not changed completely. This could be observed in the lack of research and development (R&D), technological capabilities, skilled human capital, technology penetration, and a substantial orientation towards domestic markets. In fact, these are the problems that hinder SMEs to achieve superior firm performance. Therefore it is important to study the behaviour of SMEs in order to find out ways to an improved performance and enhanced competitiveness since SMEs is the key driver to the economic growth.

## 2. Literature Review

Market orientation is an organisational culture that focuses on the understanding of the market condition in terms of customer and competitor. It is also one of the organisation capabilities that contribute to superior business performance via resource utilisation, as suggested by theory of resource based view. This capability is related to the ability to collect and utilise market information as well as coordinating the firm resources in implementing the market research activities. The importance of market orientation has received great attention in the literature over the past two decades (Johnson, Dibrell & Hansen, 2009). Empirical research on market orientation documents the positive effects of a firm's market orientation on financial performance as well as overall business performance (Milfelner, Gabrijan & Snoj, 2008). Market orientation also helps to improve performance of small and medium sized firm. Firms with a high degree of market orientation can enhance their performance by understanding and satisfying customer needs as well as understanding the market condition via gathering of information on competitor's action. This capability allows firms to respond to the market condition and competitive environment with sufficient market information that they possess. The study of Low et al (2007); Li et al. (2008); Laforet (2008) and Mokhtar et al. (2009) suggests that market orientation in small-medium sized business is positively correlated with performance. Accordingly, the following hypothesis is proposed: H1: Market orientation is positively related to business performance

Researchers have argued that firms should monitor their external environment when considering the development of a strong market orientation culture (Kohli & Jaworski, 1990). They further stated that the need firms have for being market oriented may depend on the environmental conditions under which they operate. Firms need to be able to change accordingly and develop and implement new products and processes to survive in dynamic and unstable competitive environments where conditions are rapidly and continuously changing. Firm must be a step ahead than competitors to achieve sustainable competitive advantages and superior firm performance. Hence, firms in such turbulent industries may not survive in the market place without a market orientation, and the firms that are more market oriented than their competitors should enjoy superior firm performance (Drnevich and Kriauciunas, 2011; Jaworski and Kohli, 1993; Kohli and Jaworski, 1990)

Previous studies have conceptually highlighted the moderating effect of external environment relationship between market orientation and business performance. Murray, Gao and Kotabe (2010) proposed that external environmental factors, such as market turbulence, technological turbulence and competitive intensity moderate the strength of the relationship between market orientation and business performance. The relationship between market orientation and business performance may be moderated by external environmental variables such as market or technological turbulence (Han et al., 1998) and competitive intensity (Homburg & Pflesser, 2000; Jaworski & Kohli, 1993). Ellis (2006) who studied on a meta-analysis of market orientation and performance strongly support this argument by suggested that moderators influence the market orientation-performance relationship.

Competitive environment has long been suggested to moderate the relationship between market orientation and performance (Narver and Slater, 1990; Zuniga-Vincente, de la Fuente, Sabate, and Suarez-Gonzalez, 2004). Houston (2004) argued that a firm's need to be market-oriented as competitive intensity increases, and in a highly competitive environment, a greater emphasis is placed on market orientation for better performance (Day and Wensley, 1988; Delbaere, 2002; Zuniga-Vincente et al., 2004).

According to Slater and Narver (1994), the competitive environment might affect the market orientation and business performance relationship. The basis for this is that effectiveness of a specific orientation is dependent on external environmental factors. For example, in a scenario where demand is

growing at a rate higher than the supply, a firm could merely grab the opportunity without being highly market oriented (Kohli and Jaworski 1990). Likewise, if the bargaining power of the buyer is low, the firms could simply take this advantage to profit from the transaction with a minimal level of market orientation (Slater and Narver 1994). On the other hand, if the market is characterised by strong competition, the firms could not attain satisfactory levels of profit if they are not market oriented (Slater and Narver 1994). Kohli and Jaworski (1990) proposed that the degree of market orientation is influenced by the market environment (i.e., market turbulence, competitive intensity, and technological turbulence), which moderates the relationship between market orientation and business performance.

Empirically, limited number of studies was found on the moderating effect of external environment in the relationship between market orientation and SME business performance. Gao, Zhou and Yim. (2007) found that the impact of market orientation on business performance could turn from positive to negative in the dynamic and turbulent context of China. However, Aziz (2010) found that market-technology turbulence and competitive intensity did not moderate the relationship between market orientation and business performance in Malaysian SME Agro-food industry. Based on the above arguments, the following hypothesis is developed: H3: Environmental factors have positive moderating impacts on market orientation and firm's business performance relationship.

### 3. Research Model

There are evidences in entrepreneurship studies that SMEs' performance is very important to the owner, managers, policy makers, and society, but Awang et al. (2009) found a lack of knowledge on which and how entrepreneurial factors influence SMEs performance. Also, existing literatures consistently show a positive influence of market orientation on firm performance. Traditionally, the literatures concerning marketing concept assumed that the implementations of the market orientation would lead to superior organizational performance (Piercy et al., 2002). However, Jaworski and Kohli (1993) suggest that external environment such as market turbulence, competitive intensity, and technological turbulence may influence the market orientation-performance relationship. Based on those factors, specific questions as follow should be answered:

- I. Does firm's market orientation have any influence on the firm's business performance?
- II. Do the firm's environmental factors moderate the relationship between the market orientation and its business performance?

### 4. Methods

The study is conducted with the intention to determine the relationship between market orientation capabilities towards firm's business performance among SMEs in Malaysia. The basic research design utilised for this study is a survey design. Survey method is one of the most widely used techniques in the social sciences (Creswell, 2009) and conducted on many respondents, which were asked the same questions about their characteristics, behaviours, and experiences. The unit of analysis for this study is the Small Medium Enterprise (SME) in Malaysia and this study deals with each SME manager response as an individual data source.

For data collection purposes, 900 questionnaires were distributed to SMEs in Malaysia which were selected from the SME Business Directory using a random sampling technique. Of the 900 questionnaires mailed, only 398 responses were received resulting in a response rate of 44%. The data analysis procedures involve several major steps, from descriptive analysis, preliminary data analysis, and model testing to hypothesis testing. This research therefore uses SPSS Version 17 to analyze the preliminary data and Analysis of Moment Structures (AMOS) version 18 to test the model and hypotheses. To infer the hypotheses, the regression was conducted, which is tested in SEM simultaneously. However, before conducting the analysis to infer the hypotheses, the data were already tested for linearity, normality, homoscedasticity and multi-collinearity in data screening process. All these basic assumptions were acceptable and prove that the data meet the conditions of basic assumption in regression analysis (Hair et al., 2010). Consequently, the SEM analysis technique by Zhao and Cavusgil (2006) was followed for evaluating the moderator effect. In this particular task, Zhao and Cavusgil (2006) recommends to first evaluate the independent variables towards dependent variable; then second, examine the interaction effects towards dependents variable. In addition, investigation on the relationship between independent variables and interaction variables is also needed to support the

moderating analysis. If the interaction term is significant, there is a moderating effect (Zhao & Cavusgil, 2006).

Hence, this study firstly examined the relationship between market orientation and business performance, followed secondly by examining the relationship between environmental factors towards business performance and thirdly examined the relationship market orientation and environmental factors towards interaction variables. Finally, the interaction between market orientation and environmental factors towards business performance was investigated.

## 5. Result and discussion

In testing the first hypothesis (H1) that is “Market orientation is positively related to business performance”, it is hypothesized that there is a positive and significant relationship between market orientation and business performance. Having tested the data, the t-value is found 2.517 (p-value =  $0.012 < 0.05$ ). This evidences that the market orientation influences the business performance. This supports the literatures on the positive effect of market orientation on business performance within SMEs in Malaysia. On top of that, the  $\beta$  value is 0.215, which means when changes in market increases by 1, the performance of SMEs increases by 21.5%. With reference to the results in Table 5.1 the value of regression weights between market orientation and business performance is 0.430, which shows a moderate path. This may suggest that the higher the level of market orientation within SMEs in developing performance, the higher business performance is. Therefore, hypothesis one (H1) is supported.

Hypothesis 2 (H2) is to test whether the environmental factor moderates the relationship of marketing orientation and business performance. In this case, this study expects that environmental factor interacts with marketing orientation as a predictor variable to change the degree or direction of the relationship between the marketing orientation and performance.

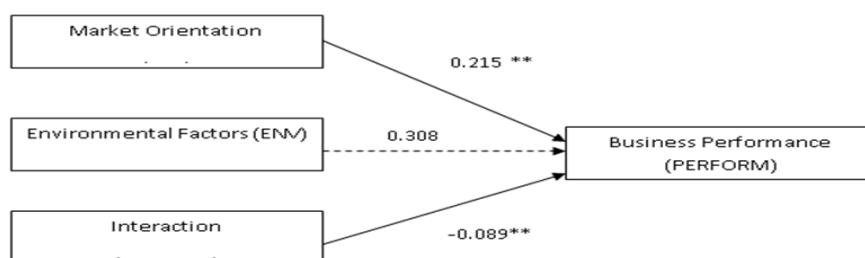
Table 5.1: Standardized Regression Weights

Latent to Latent Variables			Estimation
Business Performance	<---	Environmental Factor	0.630
Business Performance	<---	Market Orientation	0.430
Business Performance	<---	MOIENV	-1.622
MOIENV	<---	Market Orientation	0.483
MOIENV	<---	Environmental Factor	0.560

Table 5.2: Regression Weights Results

Latent to Latent		Vaariables	Estimation	S.E.	C.R.	P
Performance	<---	Market Orientation	0.215	0.103	2.517	0.012
Performance	<---	Environmental Factor	0.308	0.143	1.766	0.077
Performance	<---	MOIENV	-0.089	0.023	-2.151	0.031
MOIENV	<---	Market Orientation	4.38	0.189	23.147	***
MOIENV	<---	Environmental Factor	4.968	0.19	26.187	***

Figure 4.1: The Moderating Effects of Environmental Factors on Market Orientation and Business Performance



The results are detailed in Table 5.2. The results reveal that the market orientation is has a significant relationship towards business performance. Meanwhile, there is no significant relationship between environmental factors and business performance. It is proven by looking at the critical ratio, which is t-statistics (1.766) and p-value (0.077), which is greater than the significance level (0.05). Market orientation influences the business performance significantly, while environmental factor does not significantly influence business performance. On top of that, the results also show that market orientation statistically significantly influences interaction variable (environmental and market orientation-MOIIENV). Similar to the environmental factors, it impacts positively towards interaction variable (environmental and market orientation-MOIIENV).

However, when environmental factors interact with market orientation, there is a significant relationship between interaction variable (MOIIENV) and business performance. Particularly, t-value is -2.151 (p-value = 0.031 < 0.05), which implies that it evidences that the interaction variable (environmental factors and market orientation) influences business performance. Further, when interaction variable is significant, it indicates that the environmental factor has certain moderating impacts on the relationship of market orientation and corporate business performance (Zhao & Cavusgil, 2006). Although the moderating impacts exist, the  $\beta$  value is -0.089, which means when environmental factors effects to the market orientation increases by 1, the business performance decreases by 0.089 (8.9%). Besides, standardized regression weight result also reports that the greater the moderating impacts on environmental factors towards the relationship between market orientation and business performance, the prediction of business performance among SMEs will decrease.

## 6. Conclusion

This paper examines the influence of market orientation on business performance. Results prove that market orientation positively influences the business performance. The positive effect of market orientation on business performance means that adoption of market orientation culture does help in achieving superior business performance. It is evidenced that SME would perform well if market orientation is improved and practiced formally through the results. Then, better performance can be achieved as the findings show that if customers are put first, where customer's satisfaction are seen as priority and if customer information is shared between management and employees, these can make inputs on how best customers can be served to improve service quality. Thus, it is important for small business owners to serve customers where they have competitive advantage and also attend regularly to customer complaints.

The positive relationship between market orientation and firm performance also indicates that SME would achieve superior performance if the operations of competitors in terms of their strengths and weakness are critically considered as matters of importance. Again, coordinated marketing is very important if SMEs are to attain superior performance, in which this could be ensured if managers/owners and employees work together to ensure provision of quality goods and services to satisfy customers. One of the major findings in this research is on the moderating effect of environmental factors on market orientation and business performance relationship. In this regard, the results show that environmental factors moderate the relationship between market orientation and business performance. This supports the suggestion by previous researchers, that the external environmental factors may moderate the relationship between market orientation and performance via the market or technological turbulence dimension (Han et al., 1998) and via competitive intensity dimension (Homburg & Pflesser, 2000; Jaworski & Kohli, 1993). The existence of moderating effects of external environment shows that

the effectiveness of market orientation cultures depends on the external environment that SME operates in. In a highly competitive environment, firms need to be more market oriented and perform sufficient market research to understand the customer needs and competitor strategy. On the contrary, if the environment is not so competitive, firms can afford to pay less attention on the market research activities and enter into the market to exploit the opportunities and fulfil the customer demands. The results also imply that implementing market orientation needs to consider the external environment that firms operate in to maximise the effects of its implementation on SME business performance.

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