

**THE RELATIONSHIP BETWEEN STRATEGIC ORIENTATION AND FIRM  
PERFORMANCE: EVIDENCE FROM SMALL AND MEDIUM ENTERPRISES IN  
MALAYSIA**

**By**

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## **Declaration**

'I, Wan Mohd Nazdrol bin Wan Mohd Nasir, declare that the PhD thesis entitled 'The Relationship between Strategic Orientation and Firm Performance: Evidence from Malaysian Small and Medium Enterprises' is no more than 100, 000 words in length including quotations and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work'.

WM. Nazdrol bin WM. Nasir.....Date.....Nov 2012

## **Acknowledgement**

Those who have completed a PhD would agree with me that while reaching the end is one of the most rewarding events in one's life, looking back the process itself, no matter how demanding or difficult it actually was, is no less rewarding either. It leaves you wondering how the task was even accomplished when at that time it seemed never ending. Many people and institutions have made a tremendous contribution to this dissertation.

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## **Dedication**

I dedicate this thesis to my mother (Marina Mahmud) who endlessly inspired me through this Ph.D journey. Mama, thank you!

## **Abstract**

Recent research in business and marketing has highlighted the importance of the concept of strategic orientation or '*strategic directions implemented by a firm to create proper behaviours for the continuous superior performance of a business*' (Gatingnon and Xuereb 1997, p.78). This study seeks to determine if strategic orientation can help improve firm performance of Malaysian SMEs. Although, many types of strategic orientations have been discussed in the literature, this study chose three most comprehensive constructs that encompass significant actions targeting main areas in the operation of any business. These include; entrepreneurial orientation relating to the proactive leadership skills of the entrepreneur, market orientation directed to winning over and retaining customers with best marketing practices and interaction orientation focussed on customer relationship and management. This study applied quantitative method and used Structural Equation Modelling (SEM). As there has been some criticism that direct correlation of one particular strategic orientation to firm performance is prone to simplification, this study adopts a combination of these strategic orientations to present a holistic picture of the effect of strategic orientation on firm performance. This study also employs innovation success as mediating variable of the strategic orientation/ firm performance to present a more nuanced picture of this relationship by arguing that strategic orientation is able to deliver superior firm performance directly or indirectly by affecting innovation success. In addition, market turbulence (instability of customer preference) and competitive intensity (presence of aggressive competitors) are employed as

antecedent variables on strategic orientation to reflect factors of external environment that can intervene in the actions of a firm.

The results from the survey conducted with Malaysian SME operators in the service sector show that while entrepreneurial and market orientation both have a positive direct effect on superior firm performance, interaction orientation which is a relatively new concept, did not show any significant effect on firm performance. It was also shown that innovation success partially mediates the relationship between market orientation and entrepreneurial orientation on firm performance but was not tested for interaction orientation as the primary relationship was insignificant. Finally, while market turbulence was found to drive up all three strategic orientations, competitive intensity was found to positively affect entrepreneurial orientation but adversely affect market orientation and interaction orientation. As entrepreneurial orientation is shown to be the construct sharing a positive relationship with all the other constructs in the model, it has been identified as the most significant strategic orientation. Market orientation is equally important, but has its effect is reduced in conditions of competitive intensity. Although interaction orientation was not shown to have any significant effect on firm performance, the construct cannot be out-rightly rejected as it carries some significant merit on its own as a practice in delivering improved forms of customer service. All this suggests that Malaysian SMEs adopt a flexible and varied mix of strategic orientations according to their needs and the external conditions they operate in.

## **Publications Associated With This Thesis**

### **Conference Paper**

WM. Nasir, WM. Nazdrol, Breen, J., Josiassen, A. 2010 'Performance of SMEs: The Joint Effect of Market Orientation, Entrepreneurial Orientation and Customer Interaction Orientation', Indonesia International Conference on Innovation, Entrepreneurship & Small Business, Banten, Indonesia.

WM. Nasir, WM. Nazdrol, Breen, J., Josiassen, A. 2010 'The Effectiveness of the Relationship between Interaction Orientation and Firm Performance' Malaysia-Indonesia International Conference on Economics, Management and Accounting, National University of Malaysia, Malaysia.

WM. Nasir, WM. Nazdrol, Breen, J., 2011 'The Relationship between Innovation and Firm Performance among Small and Medium Enterprises (SMEs)' International (Spring) Conference on Asia Pacific Business Innovation and Technology Management, Grand Mirage, Bali, Indonesia.

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# Chapter 1 INTRODUCTION

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## 1.1 Chapter Overview

Small and medium enterprises (SMEs) form a significant portion of the commercial landscape in any country and the contribution made by SMEs to any economy is a subject of constant research (Suprpto et al. 2009). In particular, researchers are concerned with the development of strategies and models that can help SMEs achieve superior performance. With their smaller operations, lower capital outlay and limited human resources, the business models of SMEs are significantly different from large corporations and require a different approach. In recent years, research in this area has identified and examined a range of approaches under the rubric of strategic orientation that SMEs can adopt to achieve superior firm performance. This study draws upon the concept of strategic orientation and attempts to examine how such approaches help improve the performance of SMEs in Malaysia. SMEs make a significant contribution to the national economy in Malaysia and there have been concerted efforts by the government over the years to assist SMEs in setting up and expanding their business. The Malaysian Government recognises that SMEs do not just contribute monetarily to the economy, but successful enterprises in the country generate employment for the entrepreneurs and people they employ in their firms.

There has been some criticism that direct correlation of one particular strategic orientation to firm performance is prone to simplification. As a consequence, this study adopts a combination of strategic orientation to reflect significant types of actions in the approach of a business to its marketing techniques, entrepreneurial skills and customer service/ interaction to reflect a more complex and realistic picture of the overall strategic orientations adopted in a firm. The constructs of strategic orientation that this study has used are market orientation, entrepreneurial orientation and interaction orientation. Of these, market orientation and entrepreneurial orientation have often been used in previous studies and proven to deliver superior firm performance, but this study adds a recently introduced construct called interaction orientation which has been argued to be crucial for today's customer service-focussed and interactive market.

This study also employs innovation success as mediating variable to present a more nuanced picture of the strategic orientation/ firm performance relationship by arguing that strategic orientation is able to deliver superior firm performance directly or indirectly by affecting innovation success. In addition, market turbulence and competitive intensity are employed as antecedent variables on strategic orientation in order to reflect factors of external environment that can intervene in the actions of a firm and its performance in real life.

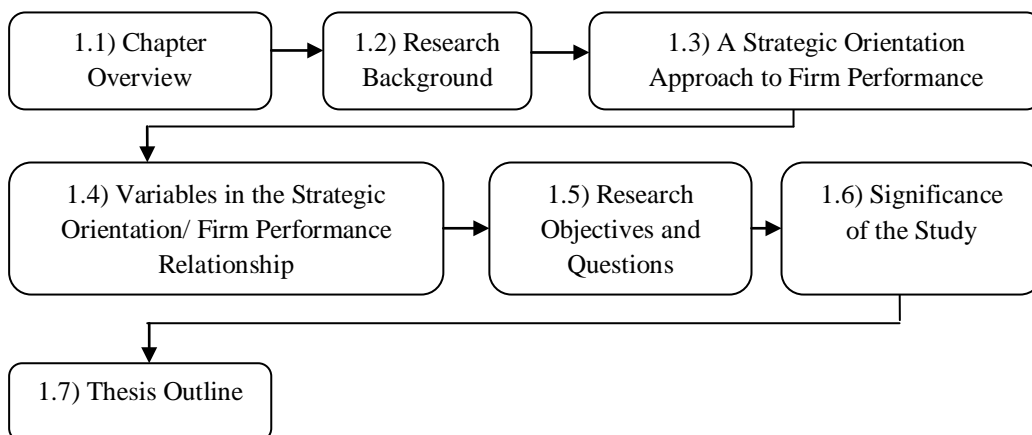
The findings from this study will add to the existing literature on strategic orientation and firm performance. Although there is a substantial amount of research on the issue, strategic orientation is still a relatively novel concept and this empirical study will provide evidence to investigate the concept and its



validity in the context of Malaysian SMEs. More importantly, this study hopes to contribute to the practical context of SMEs in Malaysia by identifying strategies that can help boost their performance.

This introductory chapter will outline a brief background to the research issue relating to the importance of firm performance for Malaysian SMEs. It will then give a brief explanation of the theoretical foundation underlying the whole approach of this thesis by introducing the concept of strategic orientation and justifying the specific constructs that have been chosen for this study. Then, the research questions and research objectives guiding this thesis are listed. This is followed by a discussion of the significance and scope of this study. The chapter concludes with a thesis outline to give the reader a rough idea of the discussion in the chapters that are to follow. Figure 1.1 shows the organisational flow of this chapter.

**Figure 1.1 Chapter Organisation**



## **1.2 Research Background**

The success of SMEs has huge implications for the growth and socio-economic wellbeing of a country and Asia Pacific Economic Cooperation (APEC) has advised its member countries to place high priority on nurturing SMEs (Asia-Pacific Economic Cooperation 2004). SMEs help in economic development of the individual nation and at the same time they encourage the flow of trade and investment between different economies in the APEC region (Karikomi 1998). According to OECD (1997), SMEs are a valuable source of employment and future growth prospects for many countries across the globe. Not only do SMEs contribute to the economic development of a country, the level of their success also acts as a measure of efficacy of government policy in nurturing entrepreneurial culture in an economy. For instance, Singapore launched a comprehensive policy called SME Master Plan in 1989 to promote entrepreneurship by assisting SMEs in areas like tax incentives, financial assistance, technology adaptation, business development and marketing (Schaper and Volery 2007).

SMEs are one of the most important contributors to economic development in Malaysia (Saleh and Ndubisi 2006). It is expected that value-added products produced by SMEs will be worth RM120 billion (USD 40 billion) by 2020, which is half of the total production in the manufacturing sector (Saleh and Ndubisi 2006). Currently, SMEs account for 97% of firms and contribute from 40% to 60% of GDP and up to 70% of employment (National SME Development Council 2009). The past figures recorded by National SME Development Blueprint (2007)

outline that SMEs contributed 32% to the GDP and 56.4% to employment in 2005. This shows that the GDP share as well as employment contribution made by SMEs has risen in the last decade.

In Malaysia, SMEs first came into prominence with the implementation of the New Economic Policy (NEP) in 1971. Although the main objective of the NEP was broader politico-economic restructuring in the nation to alleviate economic inequality between citizens of different ethnic backgrounds, there was also a subsidiary focus on SMEs with the aim of promoting an entrepreneurial culture among the country's citizens (Hoq et al. 2009). Over the years, the government has even set up a ministry for SMEs and entrepreneurs in Malaysia. There are a wide range of services and incentives provided to SMEs by the Malaysian Government. There is a focus in the existing research on the effect of government incentives and assistance on the success of Malaysian SMEs (Saleh and Kuppusamy 2007, Saleh and Ndubisi 2006, Abdullah 1999). But this study takes a different approach to the study of Malaysian SMEs, by focussing on the strategies and actions that these businesses can take on their own accord to improve their performance rather than asking how the help of an external agency like the government can help them. Malaysian SMEs have entered a relative age of maturity where there is a need to focus on their operations and models as independent businesses rather than state-supported enterprises. So there is a normative goal underlying this research in that it seeks to reduce the reliance of Malaysian SMEs on government incentives by identifying the effectiveness of their business strategies as proactive commercial enterprises and suggesting

improvements to further improve them. With these issues in mind, this research was conceptualised as an investigation into the effect of strategic orientation on firm performance in Malaysian SMEs.

### **1.3 A Strategic Orientation Approach to Firm Performance**

The principal objective of conducting this study is to examine the effect of strategic orientation on firm performance among Malaysian SMEs. Superior performance is vital to the survival and growth of firms. Firm performance seems like a self-evident and self-explanatory term but actually needs to be carefully deconstructed if we are to understand its tangible content. 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. As evident here, firm performance is not necessarily a self-evident catch-all term. There needs to be careful scrutiny of these different aspects of firm performance to quantify the actual performance achieved by the firm in a business year. Oftentimes, an improvement in one area may contradict that in another or hold back the overall growth. For example, even if there is an overall improvement in cost-based performance, this may sometimes be due to employee reduction which does not necessarily mean that there was any improvement in firm performance as such. Another example more pertinent to this study is when there is a rise in innovation-related performance with the launch of a new product, which may not necessarily translate into increased sales but may even harm the company if the

product leads to losses. So there is a need to take the figures for each aspect in cohesion with others and the overall business objective for the year to determine firm performance. Taking these various aspects of firm performance together into consideration, this study chooses a mix of strategic orientations which are expected to have an effect on the most significant areas of overall firm performance.

Strategic orientation is a well-regarded and much-used concept in the business literature concerned with firm performance. The word 'orientation' is defined by Longman: Dictionary of Contemporary English (p. 1162) as, '*The type of activity or subject that a person or organisation seems most interested in and gives most attention to.*' This general meaning of orientation also applies to the technical concept of strategic orientation in marketing and business literature where strategic orientation is described as a certain set of strategic activities which a firm adopts for the purpose of achieving superior firm performance. Based on the pioneering work done by Narver and Slater (1990) in this field, Gatingnon and Xuereb (1997, p.78) define strategic orientation as "*strategic directions implemented by a firm to create the proper behaviours for the continuous superior performance of the business*".

Over the years, many studies have gone on to identify several types of strategic orientation such as market orientation, entrepreneurial orientation, customer orientation, cost orientation, innovation orientation, competitor orientation, learning orientation, employee orientation and interaction orientation (Miller, 1983; Covin and Slevin, 1994; Atuahene-Gima, 1997; Verhees & Meulenber

2004; Baker and Sinkula 2009, Klomp and Leewen, 2010). This study has chosen entrepreneurial, market and interaction orientation for research as it finds them to be the more rigorous and comprehensive types of strategic orientation that are also likely to have the greatest effect on firm performance (Zhang 2008, Ramani and Kumar 2008). Of course, all the other strategic orientations are also valid but some of these are found to be too narrow or their effect on firm performance is only incipient. For example, cost orientation, learning orientation or employee orientation may have localised effects on their specific areas of focus but this may not translate into an overall rise in firm performance. On the other hand, customer orientation can be subsumed within interaction orientation and competitor orientation is just another aspect of market orientation. Finally, as any strategic orientation is taken with a view to bring a change or improvement in current practices/ products, this thesis considers innovation to be an effect of the orientations adopted by a business and not necessarily an orientation in itself.

Surveying the literature in the field, Rauch et al. (2009) find that a large number of studies have examined the relationship between entrepreneurial orientation and performance, but overall there are not many studies that have examined the holistic effort of a range of strategic orientations. Grinstein (2008) argues that research on strategic orientation should divert its focus from analysing the effect of a single strategic orientation to the combined effect of strategic orientations. In line with this suggestion, studies by Baker and Sinkula (2009) and Gonzalez-Benito et al. (2009) have adopted combinatorial forms of strategic orientation and demonstrated that it is better to study the combined effect of strategic orientation

than using a fragmented approach focussed on a single orientation. Although a single-construct study may have its own validity, if the research aims to make suggestions that can help firms improve their performance, a more comprehensive study of combinations of strategic orientations is needed. Although there have been some studies on this issue in Malaysia, they have considered the effect of entrepreneurial orientation and market orientation independently and no research has employed a cohesive framework to examine the effect of a combination of strategic orientation components on the performance of Malaysian SMEs. Poon et al. (2006) have conducted a study in Malaysia where they employed entrepreneurial orientation as the mediator between internal locus of control and firm performance. In addition, the interaction orientation construct is a relatively new construct that has not been used in any empirical studies till date. The following sections will briefly describe each strategic orientation used in this study.

### **1.3.1 Entrepreneurial Orientation**

According to Shane and Venkataraman (2000), entrepreneurial orientation is the ability of a firm to discover and make use of any possible opportunities to gain access to a new market. Similarly, Zahra (2008) argues that entrepreneurial orientation reflects the firm's ability to seek out and exploit new opportunities. This concept of opportunity exploitation is also stressed by Lumpkin and Dess (1996) who argue that entrepreneurial orientation is about how firms pursue a new market with methods, practices and decision-making styles that help managers to act in an entrepreneurial manner. According to Lumpkin and Dess (1996, p 136):

*“these (entrepreneurial orientation) include such processes as experimenting with promising new technologies, being willing to seize new product-market opportunities and having a predisposition to undertake risky ventures”*

This ability is generally implicated with a proactive and innovative leadership in a firm (Zahra 2008). This ability to recognise and exploit the opportunity is a significant determinant of superior firm performance (Ahuja and Lampert 2001). A study by Teece et al. (1997) suggests that firm-specific capabilities e.g. innovativeness, decision-making style and new technology adoption are the source of competitive advantage which can be developed and deployed to increase profits. Thus, this study considers entrepreneurial orientation as a key strategic orientation in delivering superior firm performance for SMEs in Malaysia.

### **1.3.2 Market Orientation**

Market orientation is a well-established construct in the strategic orientation literature which has been studied extensively in terms of its nature, structure and outcomes. 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-analysis 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 success (Grinstein 2008, Hurley and Hult 1998) and financial performance (Keh et al. 2008, Moreno and Casillas 2008, Slater and Narver 2000, Wang 2008).

### **1.3.3 Interaction Orientation**

There is a consistent focus on customers in the entrepreneurship and marketing literature stressing that satisfied customers and improved customer service can lead to superior firm performance. The ‘customer’ concept is concerned with the realisation of superior customer value starting with the individual customer. Ramani and Kumar (2008, p.28) argue that the customer is an indispensable entity and interaction orientation is based on *“the belief that prescribes the unit of analysis of every marketing action and reaction to be the individual customer”*.

With this in mind, this thesis chose to utilise this relatively new concept introduced by Ramani and Kumar (2008) who argue that interaction orientation has a strong relationship with customer performance. Interaction orientation is supposed to reflect the goodwill and value generated in one-to-one interaction between the customer and firm that can lead to superior firm performance.

## **1.4 Variables in the Strategic Orientation/ Firm Performance Relationship**

The strategic orientations explained above have all been proved to have a positive effect on firm performance, but there is also evidence to suggest that the idea of direct and positive relationship between strategic orientation and firm performance is perhaps too simplistic (Escriba-Esteve et al. 2008). Recent studies on strategic orientation stress the importance of considering the complexity (complementary, compensatory and contingent nature) of the relationship between strategic orientation and firm performance (Lumpkin and Dess 1996, Todorovic and Ma 2008b, Baker and Sinkula 2009, Shoham et al. 2005, Grinstein 2008). As explained in the last section, this study uses a multi-faceted form of strategic orientation to represent a more holistic picture of a firm's business strategies in the real world. Keeping this point in mind, this thesis attempts to avoid a simplistic reduction of the relationship and further develop pathways between the two constructs that are attuned to other real-life complexities of this issue by incorporating the importance of innovation success and external environment.

### **1.4.1 Innovation Success**

As any strategic orientation is undertaken to bring a positive improvement or change in current practices, this thesis suggests that success of any such effort is an important criterion of firm performance and proposes innovation success as a mediating variable between strategic orientation and firm performance. Using innovation success 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 strategic 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 and Hult 1998, Hult and 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 and Sinkula 2009). Another perspective developed by Verhees and Meulenbergh (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 and Van Leewen 2001). This general relationship between innovation and firm performance is reported by several authors (Henard and Szymanski 2001, Roberts 1999, Gatingnon and Xuereb 1997).

Although a related concept, *innovation success* is a subsidiary concept of innovation, meant to reflect the extent to which the innovation at hand is able to achieve its projected goals. While innovation is a general principle, innovation success is a more specific construct that actually shows if the innovation is useful for improving firm performance. Baker and Sinkula (2009) draw on this importance of innovation and employ innovation success as a mediator between strategic orientation and firm performance. Emulating Baker and Sinkula, this study will also use innovation success as a mediator between strategic orientation and firm performance. This approach is premised on the belief that any action or

strategy adopted by a firm must be able to deliver a change or improvement in its current set of products, ways of doing business or service standards which will then lead to rise in sales, market share or productivity. In other words, a strategic orientation taken in any area of the business must lead to innovation success in that field which in turn will then result in superior firm performance.

#### **1.4.2 External environment**

In studying the effect of the strategic actions of a business on its performance, there must also be some consideration given to the instabilities and changes in the environment that a business operates in as such changes can affect the mode of operation of a business and its performance. As a result, this study incorporates competitive intensity and market turbulence as factors of external environment that can control strategic orientation. These two constructs have previously been examined as moderators of strategic orientation but this study uses them as control variables that directly affect strategic orientation.

### **1.5 Research Objectives and Questions**

This study seeks to examine the effect of entrepreneurial orientation, market orientation and interaction orientation as a strategic orientation on the performance of Malaysian SMEs. In general, the objectives of this research are to identify the relationships between strategic orientation (entrepreneurial orientation, market orientation, interaction orientation) and firm performance. Specifically, this study attempts to achieve the following objectives:

- 1) To synthesise the current literature in strategic orientation for a research model that can be applied to understand the effect of strategic orientation on firm performance of Malaysian SMEs.
- 2) To examine the direct and positive effects of market orientation, entrepreneurial orientation and interaction orientation on firm performance among Malaysian SMEs in the service industry.
- 3) To examine the mediation effect of innovation success on the relationship between market orientation, entrepreneurial orientation, interaction orientation and firm performance among Malaysian SMEs.
- 4) To identify the extent to which market turbulence and competitive intensity act as control variables affecting the relationship between strategic orientation and firm performance.
- 5) To derive recommendations from the findings of the study that can help Malaysian SMEs identify the right approach towards strategic orientations to improve their firm performance.

The research questions guiding this study can be summarised as follows;

- 1) Do the constructs of strategic orientation (market orientation, entrepreneurial orientation and interaction orientation) affect firm performance?
- 2) Does the external environment (market turbulence and competitive intensity) have an effect on strategic orientation?
- 3) Does innovation success mediate the relationship between strategic orientation and firm performance?

## **1.6 Significance of the Study**

The study intends to contribute to marketing research by providing some new insights into the relationship between strategic orientation and superior firm performance. In particular, the study will contribute to knowledge in the following ways:

- 1) Although there are many studies in the marketing literature on strategic orientation most of these have been conducted in developed countries. According to Rauch et al. (2009), it is misleading to assume the homogeneity of strategic orientations in different national contexts as the sampling variance is low and suggests that there are possibly moderators influencing its effect on firm performance that are specific to a certain locale. This research will be the first large scale study of strategic orientation conducted in a developing country like Malaysia. In fact, Todorovic and Ma (2008b) suggest that the complementary effect of strategic orientation might be more effective in developing countries, as strategic 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.
- 2) This is the first study to incorporate the three constructs of market, entrepreneurial and interaction orientation in a cohesive framework. It is expected that this approach will outline a more realistic picture of strategic orientation as different strategic actions within a firm are generally taken in cohesion with each other. This will also provide a framework that is more effective than a single strategic orientation that is often used in most research.

- 3) Although there have been some studies on this subject in Malaysia, they have considered the effect of entrepreneurial orientation and market orientation independently. For example, Poon et al. (2006) employed entrepreneurial orientation as a mediator between internal locus of control and firm performance. This is the first large-scale study devoted to the subject that will also study a combination of strategic orientation constructs and their effect on Malaysian SMEs.
- 4) It will attempt to provide a greater understanding of the mediating effect of innovation success and firm performance. To date, Baker and Sinkula have conducted the only major study using innovation success in a significant role as a mediating variable for firm performance. This study will replicate their study to further validate the importance of innovation success.
- 5) The empirical findings provided from this study will also provide further evidence to support the concept of interaction orientation. The concept of interaction orientation has recently been introduced by Ramani and Kumar (2008), and apart from their original study it has not been applied and tested in any empirical study. Although the rationale given by Ramani and Kumar is convincing, it remains to be seen if the concept which purportedly explains the importance of customer service for firm performance, is actually useful.
- 6) By combining interaction orientation and market orientation together, this study will attempt to provide a new insight into the existing theory on marketing concept (market orientation) and customer concept (interaction orientation), the synergies and differences between the two.

The study also hopes to make some practical contributions mainly focusing on identifying strategies that can help improve the performance of Malaysian SMEs. It will identify the improvements that Malaysian SMEs can adopt to sustain competitive advantage and achieve superior firm performance. It will suggest particular configurations of strategic orientations that can work for Malaysian SMEs depending on their needs and business conditions. Zhang (2008) advises that any approach to strategic orientation must be carefully chosen. Just adopting a strategic orientation is not a guarantor of any advantage; any strategic orientation must be taken to target specific conditions prevailing at the time in the business. As Zhang (2008, p.35) argues “*it would be naive to suggest that a one-strategy fits all circumstances is suitable for every organization*”.

The scope of the current thesis is quite evident, it is localised to the context of SMEs in Malaysia. Specifically, this study focuses on SMEs in the services industry in Malaysia, registered with the SME Malaysian Business Directory published by Central Bank of Malaysia. In addition to the locale of the study, the theoretical literature supporting the study also defines the scope of the study. There are many concepts in entrepreneurship literature and this study has defined by its focus on the concept of strategic orientation.

## **1.7 Thesis Outline**

**Chapter 2** presents an extensive review of the literature related to the constructs of strategic orientation applied in this study, namely, market orientation, entrepreneurial orientation and interaction orientation. The chapter provides a



description of each construct, their structural makeup and how each of them is expected to lead to superior firm performance.

**Chapter 3** presents a background of Malaysian SMEs and the issue of firm performance in these SMEs. It will explain the manner in which firm performance for Malaysian SMEs can be related to strategic orientation and how innovation success and external environment can affect strategic orientation.

**Chapter 4** develops the conceptual framework incorporating the different theoretical constructs identified earlier in the literature review. It will also propose a cohesive list of hypotheses derived from the conceptual model and the measurement scales used to identify the relevance of each construct. The conceptual framework and hypotheses will guide the overall research process and data collection/analysis in the chapters to follow.

**Chapter 5** is concerned with the research methodology used for the study. There are many issues relating to research methodology that must be identified and rationalised judiciously according to the needs of the study. This chapter will explain the research paradigm of quantitative analysis and research method of survey questionnaire chosen for the study. It will also explain the process of data preparation as well as the statistical techniques used for data analysis.

**Chapter 6** presents the results from the data analysis. It starts with the results from the descriptive analysis of the demographic profile of the respondents. Then, it presents the results of principal components analysis and confirmatory factor analysis validating the goodness-of-fit of the structural model to the data. Most

importantly, the last section will interpret the results of structural equation modelling of the actual data to decipher the answers for all the hypotheses of the study.

**Chapter 7** proceeds to a critical discussion of the findings derived from the analysis in the previous chapter. This discussion will point out the implications of the findings for the theory and literature on strategic orientation as well as practical operations of Malaysian SMEs.

**Chapter 8** is the concluding chapter of this study. It will tie together all the different findings of the study to reflect on the results to the research problem. The chapter reiterates the implications of the findings for Malaysian SMEs. It will also highlight the limitations of the study and suggest avenues for future research.

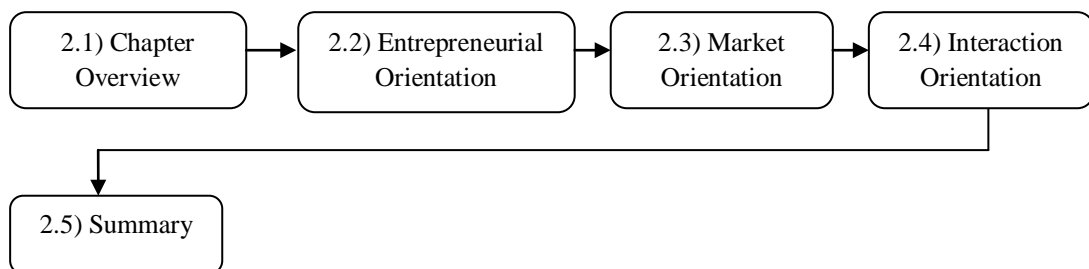
# Chapter 2 LITERATURE REVIEW: STRATEGIC ORIENTATION

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## 2.1 Chapter Overview

This chapter conducts a thorough literature review to identify and explain the different constructs of strategic orientation (entrepreneurial orientation, market orientation and interaction orientation) used in this thesis. From this in-depth review, it will address issues related to the conceptualisation of each construct, its dimensions, sources and consequences. There will also be some thoughts and reflections about the efficacy of the constructs used as discussed in previous studies. Figure 2.1 shows the organisational flow of this chapter.

**Figure 2.1 Chapter Organisation**



## 2.2 Entrepreneurial Orientation

### 2.2.1 From Entrepreneurship to Entrepreneurial Orientation

In order to define the concept of entrepreneurial orientation, this thesis must clarify the meaning of the word entrepreneur. The use of the term entrepreneur

can be traced back to the 1730s, when Richard Cantillon used the French term '*entrepreneur*' literally meaning 'undertaker' to refer to those who undertake self-employment for an uncertain return (Certo et al. 2009). The term entrepreneurship in strategy literature is generally used to refer to an action of starting a new business, entering a new market or developing a new product (Lumpkin and Dess 1996). Although there has been no consensus among researchers regarding the exact meaning of entrepreneurship and the role of entrepreneurs (Abdullah et al. 2009), this study finds that the best meaning of entrepreneurship might be inferred from Venkatraman's (1997, p.120) definition which states that:

*“entrepreneurship is a field of study on understanding ‘how opportunities to bring into existence ‘future’ goods and services are discovered, created, and exploited, by whom, and with what consequence”*

This definition by Venkatraman (1997) reflexes the French term 'entrepreneur' and nuances it with the more technical meanings associated with the term in strategy literature.

Lumpkin and Dess (1996) state that entrepreneurship is concerned about the exploits of a new business entering the market, starting a new company or product, whereas entrepreneurial orientation is concerned about *how* the new entry is undertaken. While some scholars focus on the establishment of a new entry (Zhang 2008), others refer to entrepreneurial orientation as the sum of strategy-making processes that enable the entrepreneur to enact his business plans and run his organisation accordingly (Lumpkin and Dess 1996, Wiklund and

Shepherd 2003a). Schollhammer (1982) argues entrepreneurial orientation is better understood as encompassing five different behavioural types: acquisitive, administrative, opportunistic, incubative, and imitative. He argues that a firm operator possessing an acquisitive behaviour may create new business ventures by purchasing existing firms, but the same operator may not see innovative or risk-taking as being high on the agenda when venturing into a new business.

Today, entrepreneurship is seen as one of the growth engines of any nation, creating jobs, leading to inventions and creating corporate diversity (Abdullah et al. 2009). The importance of entrepreneurial activity for SMEs has led this thesis to adopt entrepreneurial orientation as a strategic orientation to improve firm performance of SMEs in Malaysia. According to Pinchot (1985), entrepreneurial orientation is an important factor for firm performance because entrepreneurial firms are more likely to increase new product development, facilitate new business creation, and reenergise existing operations. Entrepreneurial orientation has also been linked to key organisational outcomes such as innovativeness and strategic flexibility (Miller 1983, Wiklund 1999).

The concept of entrepreneurial orientation has received a lot of attention from researchers and has become a central concept in the domain of entrepreneurship (Covin et al. 2006). Covin and Wales (2012) point out that entrepreneurial orientation has been a main subject in entrepreneurship literature for more than 30 years. Entrepreneurial orientation has been used in more than 100 studies leading to a worldwide acceptance of the conceptual meaning and relevance of the concept (Rauch et al. 2009). Rauch et al. (2009) also note that of the 51 empirical

studies on the subject, 27 were conducted in United States, 12 were conducted in Europe, 7 were conducted in Asia and 2 were conducted in Australia. As a summary, it can be concluded that entrepreneurial orientation is very important for firms to improve their performance. In general, entrepreneurial orientation is suggested as the potential characteristics that should be possessed by entrepreneurs (Covin and Wales, 2012).

### **2.2.2 Sources and Consequences of Entrepreneurial Orientation**

There is no literature directly focussed on understanding how entrepreneurial orientation is generated in a firm. Johnson (1990) suggests that entrepreneurs are the energizers of the entrepreneurial process and Zahra (1993) argues that an entrepreneur's characteristics lead to entrepreneurial orientation. Entrepreneurial orientation is premised on the assumption that the individual (entrepreneur) possesses certain characteristics of proactiveness, innovativeness, risk-taking, autonomy and competitive aggressiveness. These characteristics in an entrepreneur together with other organisational factors and environments will constitute the nature of entrepreneurial orientation in the firm.

Poon et al. (2006) suggest that the entrepreneurial orientation is produced from internal locus of control and generalised self-efficacy, while Zhang (2008) names several factors, such as innovativeness, entrepreneurship behaviour and environmental factors. On the other hand, Lumpkin and Dess (1996) suggest that entrepreneurial orientation is derived from the characteristics of the individual firm and it may vary depending on the specific influences both internal and external to a firm.

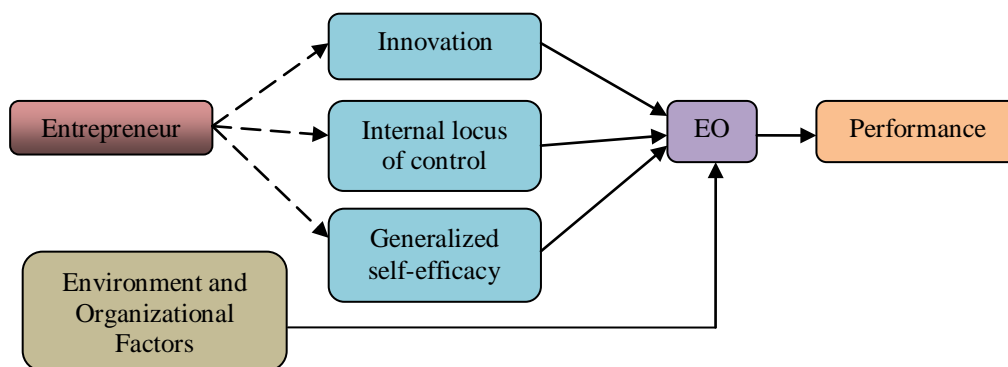
This thesis combines the perspectives of these different scholars and considers entrepreneurial orientation is derived from the innovativeness of entrepreneurs, internal locus of control and generalised self-efficacy. Innovativeness is best described as the tendency of a firm or entrepreneur to engage in a new way of doing that most probably resulted into new product or services (Lumpkin and Dess 1996). Successful entrepreneurs are those who are naturally able to think outside the box and act in innovative ways to achieve success.

Although previous studies are quite firm in their understanding of the sources of entrepreneurial orientation, the consequences of entrepreneurial orientation are fraught with some uncertainties and divergence in opinion. Rauch et al. (2009) suggest that entrepreneurial strategy-making processes is the key decision maker which could be used to enact a firm's organisational purpose, sustain its vision and create competitive advantage.

The meta-analysis research by Rauch et al. (2009) argue that studies show a 1) high correlation between entrepreneurial orientation and firm performance, 2) lower correlation between entrepreneurial orientation and firm performance and 3) no relationship between entrepreneurial orientation and firm performance. Many scholars report high correlation between entrepreneurial orientation and firm performance (Covin and Slevin 1986, Hult et al. 2003, Lee et al. 2001, Wiklund and Shepherd 2003b), while some report lower correlation (Dimitratos et al. 2004, Lumpkin and Dess 2001, Zahra 1991) and a few report insignificant relationship (George et al. 2001, Covin et al. 1994). Rauch et al. (2009) argue that these variations in the result occur due to the size of the sample as the effect of

entrepreneurial orientation is greater in smaller organisations and lesser in larger organisations. This study is premised on a direct effect of entrepreneurial orientation on superior firm performance. Figure 2.2 below shows the sources and effects of entrepreneurial orientation based on suggestions of previous studies (Zhang 2008, Poon et al. 2006, Lumpkin and Dess 1996).

**Figure 2.2 Sources and Consequences of Entrepreneurial Orientation**



Source: Zhang (2008)

### 2.2.3 Measuring Entrepreneurial Orientation

Scholarly perspectives on the concept of entrepreneurial orientation have evolved since its first construct was proposed by Miller (1983). In its original conceptualisation by Miller (1983), entrepreneurial orientation consisted of three dimensions: innovativeness, risk taking and proactiveness. These three dimensions were later labelled by Covin and Slevin (1989, p.79) as making up ‘*a basic, one-dimensional strategic orientation*’. A study by Zhang (2008) also gave concrete evidence that the three original components of entrepreneurial orientation are positively correlated with each other and support a convergent validity. Recently, a new perspective on entrepreneurial orientation has also focussed on the hierarchical relationship between the three original dimensions of



entrepreneurial orientation. Tang et al. (2009) proposed that the three unique dimensions of entrepreneurial orientation are not separate autonomous constructs, but antecedents or consequences depending on the internal and external context of the firm. Tang et al. (2009) argue that if proactiveness is achieved it will automatically encourage firms (SMEs) to pursue more opportunities and utilise innovative and risk-taking behaviour. To this mix of dimensions, Lumpkin and Dess (1996) proposed two other components of entrepreneurial orientation, namely, competitive aggressiveness and autonomy. The following sections will discuss all five dimensions of entrepreneurial orientation.

### ***Proactiveness***

Market proactiveness refers to the extent to which a firm anticipates and acts on future needs, (Lumpkin and Dess 1996, Miller 1978). Proactive firms are often the first firms to enter new markets. According to Venkatraman (1989, p.929), proactiveness is the process of anticipating and acting on future needs by:

*“seeking new opportunities which may or may not be related to the present line of operations, introduction of new product, and brands ahead of competition, strategically eliminating operations which are mature or declining stage of the life cycle”.*

### ***Innovativeness***

Basically, innovativeness results from the achievement made by the firm in developing new products, services 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, services 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.

### ***Risk-taking***

Miller (1983) defines risk-taking as the tendency of a firm to engage in high-risk projects with the aid of managerial preferences who choose bold actions to achieve a firm's objective. However, Lumpkin and Dess (1996) argue that it is important to note that risk has various meanings depending on the context in which it is applied. As Baird (1985) argues, risk-taking action in the face of grave uncertainty may or may not necessarily deliver advantageous result.<sup>1</sup> The unpredictability of results from risk-taking means that it does not necessarily act as a positive dimension of entrepreneurial orientation.

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<sup>1</sup> To give an example of risk taking, in 2008, Jeroen van der Veer, CEO of Royal Dutch Shell PCL, made risky deals in Russia's Far East where there is an abundance of natural gas and crude oil reserves. The action taken by Jeroen van der Veer was considered extremely risky as it was too early to know if the move would be successful. The speculators saw that if Russian political instabilities and challenges in pipeline construction did not dampen returns, Shell stood to post a hefty profit from its 27.5% stake in the venture. This example highlights the volatile and unpredictable nature of the concept of risk taking.

### ***Autonomy***

Autonomy is not one of the original dimensions of entrepreneurial orientation developed by Miller (1983), but added by Lumpkin and Dess (1996) who argued that a firm must be able to exercise autonomy at the strategic level of decision-making and action in order to achieve entrepreneurial orientation. Lumpkin and Dess (1996) define autonomy as the capacity of a team or an individual to conduct an independent action by bringing forth a vision or idea and seeing it through to completion. Lumpkin and Dess (1996, p.140) explain:

*“the exercise of autonomy by strong leaders, unfettered teams or creative individuals who are disengaged from organizational constraints’ is required”.*

Certo et al. (2009) argue that autonomy is consistent with entrepreneurial independence as autonomy is required to bring a new idea to completion unfettered by the shackles of corporate bureaucracy.

### ***Competitive aggressiveness***

Competitive aggressiveness is defined as a firm’s tendency to intensely and directly challenge its competitors in order to outperform rivals in the marketplace (Lumpkin and Dess 1996). Competitive aggressiveness is also an additional dimension suggested by Lumpkin and Dess (1996) to Miller’s original list. A firm can achieve competitive aggressiveness by adopting unconventional tactics to challenge industry leaders (Cooper and Dunkelberg 1986). According to Certo et

al. (2009), Ben and Jerry's marketing campaigns<sup>2</sup> in mid-1980s show a good example of competitive aggressiveness. However, it must be noted that excessive aggressiveness can be risky for smaller firms when attempting to confront established rivals (Lumpkin and Dess 2001).

From the observations made by Rauch et al. (2009) it can be deduced that the most popular measurement scale for entrepreneurial orientation is the one advanced by Covin and Slevin (1989). Other measurement scales are those proposed by Naman and Slevin (1993), Lumpkin and Dess (1996) and Miller (1983). These measurement scales, however, were mixed by the researchers according to the suitability of their studies. For instance, a study by George et al. (2001) used a 14-item, 7- point scale, of which 9 items were from Naman and Slevin's (1993) study and 5 items from Lumpkin and Dess's (1996) study. This thesis, however, employed the updated scale by Gonzalez-Benito et al. (2009) which is based on previous literature and studies especially those written by Covin and Slevin (1989). The Gonzalez-Benito et al. (2009) scale is comprised of three main components of entrepreneurship specifically: innovativeness, risk-taking and proactiveness. Table 2.1 below shows some of the previous studies and the different entrepreneurial orientation scales they employed.

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<sup>2</sup> The ice-cream company Ben and Jerry launched an aggressive advertising campaign to counter rival Pillsbury's Haagen-Dazs's actions to limit the distributions of Ben and Jerry's products in certain markets. Ben and Jerry took an aggressive action to challenge the Pillsbury's Haagen-Dazs by launching a campaign called '*What the doughboy afraid of?*' Both companies have been involved in a series of lawsuits involving disputes over appropriate codes of conduct in competitive aggressiveness stipulated by marketing and legal bodies CERTO, S. T., MOSS, T. W. & SHORT, J. C. 2009. Entrepreneurial orientation: An applied perspective. *Business Horizons*, 52, 319-324.

**Table 2.1 Entrepreneurial Orientation Measurement Scale Adopted by Previous Studies (from year 1995 to 2010)**

Naman and Slevin (1993)	Covin and Slevin (1989)	Various modified scale
Hult, G.T.M. et al. (2003)	Covin, J.G. et al. (1990)	George et al. (2001)
Hult, G.T.M. et al. (2004)	Covin, J.G. et al. (1994)	Covin J.G. et al. (2006)
Slater and Narver (2000)	Marino, L. et al. (2002)	Jantunen, A. et al. (2005)
	Atuahene-Gima (2001)	Monsen, E. (2005)
	So-Jin Yoo (2001)	Gonzalez-Benito et al. (2009)
	Wiklund and Shepard (2003)	

Source: Adopted from Rauch et al. (2009)

This study employed Gonzalez-Benito et al. (2009) scale for entrepreneurial orientation due to several factors (refer to Section 4.6.1). Firstly, their scale is totally reliable and valid with cronbach's  $\alpha = 0.894$ . Secondly, the scale covers the basic and original components of entrepreneurial orientation, on which most scholars are in agreement. Finally, the scale established by Gonzalez-Benito et al. (2009) used simple language which is easier to understand and negotiate for Malaysian SMEs entrepreneurs and owners.

## **2.3 Market Orientation**

### **2.3.1 From Marketing to Market Orientation**

Marketing is one of the main concepts in business research apart from production concept, product concept, selling concept and social marketing concept (Kotler et al. 2005, Zhang 2008). The marketing concept encompasses the efforts made by firms to fulfil their customer's needs better than their competitors (Kotler et al.

2005). Marketing is often discussed from two perspectives, the outside-in and the inside-out perspective. The outside-in perspective starts with the customer's needs and wants, so that the input gathered from the customers can be used to develop strategies for achieving superior firm performance. Inside-out perspective begins with the product or idea as it is produced from within the firm and then proceeds to examine its popularity with customers Zhang (2008). In the extant literature, the outside-in perspective is getting more prominence than the inside-out perspective (Pulendran et al. 2003).

Market orientation as a concept developed from this fundamental role of marketing in business and refers to actions and strategies taken by the firm that are oriented towards achieving good marketing practices. 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. 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"*.

Market orientation is a well-developed concept that has been applied in studies in many countries ever since it was first conceptualised in the early 1990's. In fact, there are even a few meta-analysis studies that review the literature on the subject. A meta-analysis by Cano et al. (2004) suggests that the relationship between

market orientation and firm performance has been proved to be positive and consistent worldwide. In contrast, Farley et al. (1982) say that the location of the study has an influence on the market orientation and firm performance relationship. Selnes et al. (1996) found differences affecting the relationship between market orientation and firm performance between American and Scandinavian samples. Shoham et al. (2005) suggest that the impact of market orientation depends on the country in which it is implemented. In less developed countries, managers should anticipate higher payoffs from their marketing orientation perhaps because proactive marketing strategies are generally not practised in developing countries and this could result in greater returns for firms adopting marketing orientation (Shoham et al. 2005).

### **2.3.2 Sources and Consequences of Market Orientation**

Jaworski and Kohli (1993) identified top management, interdepartmental dynamics and organisational systems as the sources of market orientation. Kirca et al. (2005) also agree with this and note that Jaworski and Kohli's argument has generally been accepted in more than 200 published studies over the last 15 years. Firstly, top management reinforcement can motivate the organisation's staff to track changing markets and be more alert to market needs (Jaworski and Kohli 1993). The leadership capabilities of a top level manager or CEO of the company is the key point of market orientation development (Pulendran et al. 2000). According to Webster (1988, p.38) "*the key to developing a market driven, customer-oriented business lies in how managers are evaluated and rewarded*". But Webster (1988) further argued that if managers are concerned with short-term

profitability and sales, they are likely to overlook market factors such as customer satisfaction that will assure long-term profitability and health of the firm.

The other source of market orientation is interdepartmental dynamics which is actually made up of two types: interdepartmental conflict and interdepartmental connectedness (Jaworski and Kohli 1993, Pulendran et al. 2000, Kirca et al. 2005). Interdepartmental conflict due to incompatibility of actual or desired responses may contribute to internal communication breakdown and internal competition which will lower the overall market orientation of the organisation. On the other hand, interdepartmental connectedness can contribute to greater market orientation, as it encourages information flow and interdependency between departments to coordinate their actions for better marketing practices.

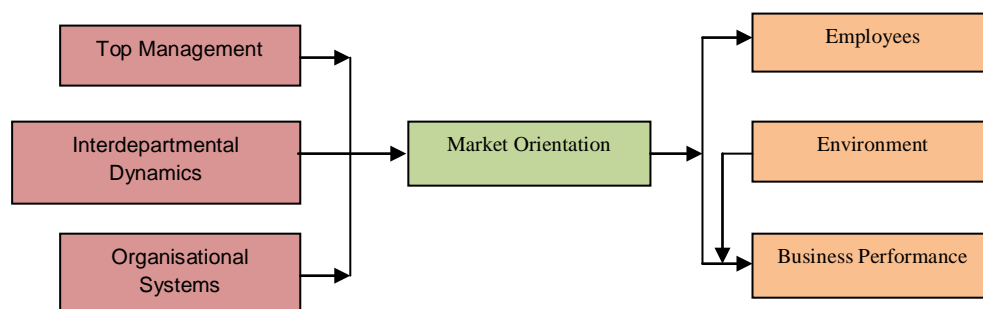
Organisational structure and systems can also be a source of market orientation and it relates to the degree of the centralisation and formalisation of rules that identify the roles, authority, relations, communications, norms, sanctions, and procedures in the firm (Hall et al. 1967). Jaworski and Kohli (1993) identify departmentalisation and reward systems and Kirca et al. (2005) identify market-oriented training as aspects of organisational structure that can create market orientation. Pulendran et al. (2000) even suggest that a reward system should be considered as a source of market orientation rather than an attribute under organisational systems. They believe that this new element of reward system orientation is able to significantly reduce role conflict and job ambiguity and is required in achieving higher market orientation in a firm (Pulendran et al. 2000). According to Webster (1988) a market-driven and customer-oriented firm is



determined by managers who are evaluated well and rewarded for their performance. However, it is important to note that managers who are evaluated based on short-term profitability tend to abandon other criteria like customer satisfaction and credibility of the firm in the long run. Therefore, it is suggested that a well-planned reward system for managers targeting long-term performance is important for firms to be market-oriented.

From the review of the extant literature, top management can be considered as the main driver of market orientation for micro and small firms, but the other two sources linked with organisational systems (as well as reward system) and interdepartmental dynamics are more suited to larger enterprises with complex organisation structures. It is important for SMEs to acknowledge the sources of market orientation which mostly related to the management practice of a firm in order to grasp the market orientation which suggests contributing to firm performance. Figure 2.3 explains the sources and consequences of market orientation as conceptualised by Jaworski and Kohli(1993).

**Figure 2.3 Sources and Consequences of Market Orientation**



Source: Kohli and Jaworski (1993)

Now turning to the discussion of the consequences of market orientation, Jaworski and Kohli (1993) classify the consequences of market orientation into three broad categories: consequences on employees, environment and business performance (Figure 2.3 above). The effect on employees can lead to organisational commitment and *esprit de corps*<sup>3</sup> as market orientation is able to provide psychological and social benefits to employees when employees from different departments work together for the ultimate goal of satisfying customers. The consequences on environment are explained as the effect on the larger market by the strategies of market orientation such as aggressive advertising or market expansion undertaken by the firm. Finally, business performance refers to rise in sales, profits or market share due to market orientation.

On the other hand, Kirca et al. (2005) suggest that the consequences of market orientation are of four types: organisational performance, customer consequences, innovation consequences and employee consequences. What is different with Kirca et al. (2005) is that they leave out environmental consequences and suggest that market orientation would cause customer consequences and innovation consequences. Improvement in customer loyalty and customer satisfaction are the customer consequences of market orientation, while innovation consequences of market orientation are innovativeness and generation of new products and ideas.

Like the sources of market orientation, some consequences of market orientation are not suited to micro and small enterprises. The environment consequence

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<sup>3</sup>*Esprit de corps* literally meaning team spirit is defined as formal feelings of loyalty towards people who are involved in the same activity.

outlined by Jaworski and Kohli is not suited to SMEs as they operate on a much smaller scale and cannot really cause turbulence in the market with their actions. As the dimensions suggested by Kirca et al. (2005) seem to subsume the other two dimensions of employee consequence and business performance remaining in Jaworski and Kohli, while providing a more nuanced version of the consequences, this study will adopt the view that there are four consequences of market orientation relevant to Malaysian SMEs—organisation, employee, customer and innovation.

### **2.3.3 Measuring Market Orientation**

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.

#### ***The Cultural Perspective***

Narver and Slater (1990) believe that market orientation is a type of organisational culture comprised of three components<sup>4</sup>: customer orientation, competitor orientation and inter-functional coordination. These components are guided by the decision criteria of long-term focus and profitability. Customer orientation is concerned with a firm's understanding of customer needs/preferences and

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<sup>4</sup> The cultural perspective by Narver and Slater, (1990) labelled the three components as the '*behavioural components*' and it should not be confused with the behavioural perspective by Kohli and Jaworski, (1990).

capacity for continually creating products and services of superior value for them (Narver and 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 and 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. Narver and Slater (1990) argue that coordinated integration is directly related to both customer and competitor orientation because when there is no practice of inter-functional coordination in a business the tendency of isolation among business functions is relatively high.

### ***The Behavioural Perspective***

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. They also argue that the market is broader than the end-users (customers) and should also include other players like distributors, and other exogenous factors that can achieve customer wants and needs. Such exogenous factors might also include government regulation, technology, competitors and other environmental forces (Zhang 2008). The behavioural perspective is premised on the belief that market orientation is based in market intelligence and posits a process-driven model that considers stages of

generating, disseminating and responding to market intelligence as the essence of market orientation (Kohli and Jaworski 1990).

Here, the first stage of market orientation begins with the intelligence generation where intelligence about market trends and consumer preferences are gathered from not just the customers but all other users linked in the chain such as distributors, regulatory authorities etc. It also argues that intelligence generation should involve all functional departments of the firms rather than just the marketing department (Zhang 2008). Second in this model is the issue of intelligence dissemination and this involves orchestrating meaningful and secure cross-departmental flow of information and collaboration. Kohli and Jaworski (1990) argue that cross-department collaboration is of key importance here. Sometimes the information flow does not necessarily come from the marketing department but from other departments. For example, the technology or engineering departments may be the first to notice changes in products in the market. Lastly, intelligence responsiveness is the capacity of a firm for advantageous reaction to market intelligence. Without responsiveness to the market intelligence generated and disseminated, the firm's success will be relatively low and the hard work done to generate and disseminate information may prove futile. Even here cross-departmental collaboration is required to respond effectively to a market. For instance, to come out with a new product, the R&D department has the responsibility to design and develop the product, the manufacturing department is responsible for the production of the product and the

marketing department is responsible for introducing the product in the market with the help from the sales department.

### ***The Convergence of Both Perspectives***

The behavioural and cultural perspectives were explained above, but 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. Zhang's (2008, p.17) summary of the similarities of Kohli and Jaworski (1990) and Narver and Slater (1990) proves this point:

*“the generation of market intelligence all about generating intelligence on customer and competitors; the responsiveness to market intelligence includes responsive to customers and competitors; a customer orientation encompasses the generation and dissemination of, and responsiveness to, intelligence about customers; inter-functional coordination facilitates effective generation, dissemination and responding to market intelligence”.*

Day (1994) also finds that the conceptualisation of market orientation across these two perspectives reveal three similarities: 1) a set of beliefs that perceived customer as the top interest (Deshpande et al. 1993), 2) an aptitude to utilise the

information generated on customers and competitors (Kohli and Jaworski 1990) and 3) the synchronised application of inter-functional resources to create a superior value for the customer.

Therefore, this thesis chose to overlook the purported differences argued by the two different perspectives. It must, however, be noted that this thesis 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.

Both perspectives by Narver and Slater (1990) and Kohli and Jaworski (1993) have developed their own measurement scales. Narver and Slater's scale is known as MKTOR while Kohli and Jaworski's scale is known as MARKOR. A modified scale combining the two, called MORTN, has also been developed by Deshpande and Farley (1998b). Table 2.2 shows the measurement scale of market orientation which has been employed by previous studies.

**Table 2.2 Market Orientation Measurement Scale Adopted by Previous Studies  
(from year 1995 to 2010)**

<b>MKTOR</b>	<b>MARKOR</b>	<b>Various modified scale from MARKOR and/or MKTOR</b>
Han et al. (1998)	Liao et. al. (2001)	Deshpande and Farley (1998)
Movando (1999)	Antila (2002)	Matsuno et al. (2000)
Tse et al. (2003)	Varela and Rio (2003)	Matsuno et al. (2005)
Hooley et al. (2003)	Kara et. al. (2005)	Zhou et al. (2005)
Sin et al. (2004)	Bathgate et. al. (2006)	Hult et al. (2005)
Aggarwal and Singh (2004)	Macedo and Pinho (2006)	Ward et al. (2006)
Ellis (2005)	Rojas-Mendez (2006)	
Hammond, Webster and Harmon (2006)		
Zhang (2008)		

Source: Adopted from Zhang (2008)

### ***MKTOR Measurement Scale***

The MKTOR scale was developed by Narver and Slater (1990) and consists of fifteen items categorised into three dimensions as they argue that a market oriented business must be customer oriented, competitor oriented and inter-functionally coordinated. The first dimension of customer orientation has six items: 1) customer commitment, 2) create customer value, 3) understand customer needs, 4) customer satisfaction objectives, 5) measure customer satisfaction and, 6) after-sales service. The second dimension of competitor orientation contains four items: 1) salespeople share competitor information, 2) respond rapidly to



competitor's actions, 3) top managers discuss competitor's strategies and 4) target opportunities for competitive advantage. The third dimension is international coordination and has five items: 1) inter-functional customer calls, 2) information shared among functions, 3) functional integration in strategy, 4) all functions contribute to customer value, and 5) share resources with other business units. In their empirical study, Matsuno et al. (2005) evaluated the existing scales and developed an extended version where they retained 12 items out of the 15 items. From their empirical studies, Movando et al. (2005) and Hult et al. (2005) suggest that researchers may reconstruct MKTOR scale according to the needs of their study and context. A few other versions of MKTOR have been developed later on and widely employed in empirical studies like Aggarwal and Singh (2004), Ellis (2005), Hammond et al. (2006) and Han et al. (1998).

### ***MARKOR Measurement Scale***

The MARKOR scale was introduced by Kohli et al. (1993) and is comparable with Kohli and Jaworski's (1990) behavioural perspective on market orientation. Kohli et al. (1993) suggest that MARKOR is a measurement of market orientation and it can assess its psychometric properties in the following aspects: 1) Multi-departmental market intelligence activities 2) disseminate this intelligence vertically and horizontally through both formal and informal channels and 3) develop and implements marketing programs on the basis of the intelligence generated.

The establishment of MARKOR scale by Kohli et al. (1993) began with 32 items divided into three dimensions: intelligence generation (10 items), intelligence dissemination (8 items) and responsiveness (14 items) (See Appendix 1 Part D). They retained 20 of the 32 items in the final version of the MARKOR scale. Just like MKTOR, this final version of the MARKOR scale has been widely employed in various empirical studies like Antilla (2002), Kara et al. (2005), Liao et al. (2001) and Macedo and Pincho (2006).

### ***MORTN Measurement Scale***

The MORTN scale was developed by Deshpande and Farley (1998b) by synthesising three different scales MKTOR, MARKOR and the Customer Orientation scale developed by Deshpande et al. (1993). The scale measures the impact of corporate culture and organisational innovativeness on firm performance. Deshpande and Farley (1998b) developed MORTN by evaluating the reliability and validity of the three scales on the same sample and making direct comparisons. Their findings showed that MKTOR and MARKOR are highly correlated and the study selected the top 10 items with the best loadings from MKTOR and MARKOR to create their scale called MORTN.

This thesis employed the MORTN measurement scale by Deshpande and Farley (1998b). The main reason is that the methodology used is robust with cross-cultural comparisons under different circumstances. MORTN is the latest scale derived from three established scales, MARKOR, MKTOR and customer orientation scale using the top ten items from all these scales. MORTN is

regularly employed by many recent studies like Baker and Sinkula (2009) and Gonzalez-Benito et al. (2009). MORTN scale is comprehensive and capable of capturing all the important information with simple, easy-to-understand terminology. This is particularly important for this study as the respondents/samples are Malaysian SMEs entrepreneurs or owners with varying levels of formal education. They do not necessary have the marketing background to understand the complexity of sentences such as MARKOR and MKTOR scales.

## **2.4 Interaction Orientation**

### **2.4.1 From Customer to Interaction Orientation**

Interaction orientation is a relatively new concept developed by Ramani and Kumar (2008). Its conceptualisation is based on the idea that today's interactive market environments require special emphasis on customer service and interaction for the survival and success of a business. It is very important to clarify the definition of the customer concept before discussing interaction orientation. The concept of 'the customer' was introduced by Hoekstra et al. (1999b) and is based on the idea that the individual customer is the starting point of superior customer values. It is argued that firms which employ the customer concept will improve their awareness of customer needs and preferences, decision making criteria, thus providing values that are truly needed for individual customer utility maximisation.

There is a certain level of convergence between marketing and the customer concept which underpin marketing and interaction orientation respectively.

Therefore, it is necessary to illustrate their differences and rationalise the adoption of interaction orientation as a separate construct in addition to market orientation. Interaction orientation is based on the customer concept which implies a reorientation of marketing by positioning the customer as the key role. The new paradigm suggested by the customer concept over the marketing concept, includes data on customer satisfaction as well as unmet needs among customers (Hoekstra and Huizingh 1999a) and is seen as being capable of establishing the relationships between individual customers (Hoekstra et al. 1999b). It points out the role of entrepreneur/manager of customers to enhance the element of customer motivations, satisfaction levels and unmet needs in addition to purchase (Hoekstra et al. 1999b). Table 2.3 below summarises the difference between marketing concepts and how the customer concept develops comparing the two in terms of its objectives.

**Table 2.3 Objectives between Marketing Concept and Customer Concept**

<b>Marketing Concept</b>	<b>Customer Concept</b>
Sales Orientation	Product Orientation through customer, employee and partner satisfaction.
Selling products/services	Delivering superior customer value
Market share	Customer share
Short term	Long term
Attracting customers	Retaining customers
Transactions	Relations
Value of single transactions	Customer lifetime value

Source: Hoekstra et al. (1999b)

When scholars noticed that dealing with customers contained some inherent interaction dimensions useful for firm performance, they began to tap into the

customer concept. Srinivasan et al. (2002) argue that interactions with customers are able to provide certain direction to firms in terms of refining their knowledge about customer's tastes and preferences. Ramani and Kumar (2008) then came up with the construct of interaction orientation and defined it as capability of a firm to communicate with its individual customers and to manipulate the information obtained from them through successive communications for profitable customer relationships. Ramani and Kumar (2008) argue that interaction orientation will lead to customer-based relational performance and customer-based profit performance which can affect aggregate business-level performance positively.

Interaction orientation is a construct focused on interactions at an individual level with customers. It can be implemented on the firm's customer relationship management (CRM) systems. This criterion of interaction orientation differentiates it from the marketing concept but does not necessarily replace the marketing concept as suggested by Palmer et al. (2005). There are quite a few perspectives on relationship marketing in the literature, such as the *Nordic* school; a work based on the *IMG Group* and *Anglo-Australian* school (Palmer et al. 2005, Ballantyne 1994). The Nordic school of thought is based on the concept of service as a means of improving the quality of customer relationship, stimulating the customer loyalty and extending the customer life-cycle (Gronroos 1990). The IMG (Industrial or International Marketing Purchasing) Group focuses on business-to-business markets (Turnbull et al. 1996), while Anglo-Australian school mainly focuses on quality, customer service and marketing (Palmer et al. 2005). Interaction orientation as defined by Ramani and Kumar (2008) also

echoes these concepts in relationship marketing. The key word in the convergence between relationship marketing and interaction orientation is *interaction*. Rayport and Jaworski (2005) argue that well-managed interactions are a source of competitive advantage and successful interaction between customer and firm are able to assist firms in product development and consequently increase firm performance.

Ramani and Kumar's study of interaction orientation has been conducted in the US among senior and top level marketing executives from Research Board, Conference Board, Marketing Science Institute and American Marketing Association. Since the concept is relatively new, this thesis will be the first empirical study that includes interaction orientation as part of a multi-variate study and needless to say it is the first study that attempts to test its effect on Malaysian SME operators.

#### **2.4.2 Sources and Consequences of Interaction Orientation**

Ramani and Kumar (2008) summarised the sources of interaction orientation into management-level, firm-level and industry-level characteristics of a business. At the management level, the creativity of customer service practices adopted by managers contributes to interaction orientation. The sources of interaction orientation relating to firm and industry are more suited to large firms as they relate to patents and expertise in outsourcing (firm-level) and institutional pressures and industry environment (industry-level). At the management level, the reward system is argued to have the same effect on interaction orientation as market orientation as managers who stress customer satisfaction and market-

oriented behaviour and reward employees that adopt these practices will encourage better customer interaction in the firm. Another management-level source of interaction orientation is the capability of managers to improve service techniques to interact with customers.

In terms of its consequences, interaction orientation is the firm's ability to maximise individual interaction between the firm and customer with the integration of marketing ideas leading to superior performance outcomes. Marketing and entrepreneurship literature has generally acknowledged the importance of creating customer value for a positive effect on firm performance. Olson et al. (2005) suggest that firms with a superior customer orientation gain competitive advantage through the creation and maintenance of customer value. Boulding et al. (2005) propose that customer relationship management as a factor in improving firm performance. In addition, communication between customer and firm is an advantage for firms for developing organisational capability.

Explaining the consequences of interaction orientation, Ramani and Kumar (2008) identify results in two dimensions of customer-centric measures: 1) customer-based relational performance and 2) customer-based profit performance. Customer-based relational performance is meant to measure performance on attitudinal parameters while customer-based profit performance to measure performance on behavioural parameters.

To explain further, Ramani and Kumar (2008) argue that customer-based relational performance can be measured with three indicators: 1) customer

satisfaction, 2) customer ownership and 3) positive word of mouth. A superior customer satisfaction can be achieved through a superior interaction response capacity and consistent customer empowerment practices (Ramani and Kumar 2008). Customer empowerment or customer ownership has been argued in the marketing literature as one of the most important and successful business strategies (Prahalad and Ramasamy 2004, Newell 2003). Customer ownership is to allow customers to develop their own experience with the firm on their terms (Prahalad and Ramasamy 2004). Last but not the least; interaction orientation also is likely to increase positive word of mouth by indirectly promoting the firm to new customers (Dick and Basu 1994, Hagel and Armstrong 1997, Srinivasan et al. 2002, Ramani and Kumar 2008).

For customer-based profit performance, Ramani and Kumar (2008) used three indicators to measure customer-based profit performance like 1) identification of profitable customers, 2) acquisition and retention of profitable customers, and 3) conversion of unprofitable customers to profitable ones. Previous studies by Kumar et al. (2004) and Venkatesan and Kumar (2004) have proved that a firm's marketing communication channel can be improved by lifetime value metrics for customers.

### **2.4.3 Measuring Interaction Orientation**

Since there is no other measurement scale for interaction orientation, this thesis employed the scale developed by Ramani and Kumar (2008) named INTOR. The exploratory study by Ramani and Kumar (2008) was conducted among managers from business-to-business and business-to-consumer firms through exploratory



interviews. From the interviews, Ramani and Kumar (2008) proposed that interaction orientation comprises of four components/ dimensions—customer concept, interaction response capacity, customer empowerment and customer value management. These four dimensions lead to 12 items in INTOR that measure how firms perceive their relationship with their customer on an individual basis.

### **Customer Concept**

The customer concept refers to the capacity of a firm to deliver any kind of advantage to the customer. A seller can create value for the buyer by increasing benefits to the buyer for the cost charged on the buyer and by decreasing the buyer's cost in relation to the buyer's benefit. The customer concept corresponds with Day and Wensley's (1988) notion of customer orientation as a seller's action to comprehend and cater to a buyer's entire value chain constantly.

### **Interaction Response Capacity**

Interaction response capacity refers to the ability of a firm for fostering successful interactions with customers and the firm's ability to respond to diverse customers differently. Employees at the frontline of serving customers need to adapt to individual customer needs as well as be proficient in after-sale service (Ramani and Kumar 2008). As Treacy and Wiersema (1993) note, customers no longer judge the value of a product based on its price and quality alone but they look forward to certain convenience of purchase and after-sales service.

## **Customer Empowerment**

In marketing literature, customer empowerment has always received attention from researchers. According to Ramani and Kumar (2008), customer empowerment allows customers to connect with the firm and collaborate with each other by sharing information, criticism and suggestions.

## **Customer Value Management**

Finally, customer value management is identified as the ability of the firm to measure and define its individual customer value and to use it as a guideline to marketing resource allocation decisions (Kumar et al. 2004, Ramani and Kumar 2008). Customer data can be used to analyse individual customer value in order to provide good sales strategies that can then return revenues or profits to the firm. These kinds of customer data or data analytic techniques facilitate the capacity and calculation (prediction) of customer based revenue and profits.

## **2.5 Summary**

This chapter has elaborated the theoretical background of all the three concepts of strategic orientation used in this study through an extensive literature review. To summarise the different aspects of the theoretical background in brief—entrepreneurial orientation is the approach adopted by entrepreneurs to ensure the smooth operation of a firm (Rauch et al. 2009); market orientation refers to strategies taken by a firm to achieve competitive advantage in the marketing of its

products (Aggarwal and Singh 2004) and interaction orientation includes approaches taken by a firm to facilitate its success in interactive market environments (Ramani and Kumar 2008). Most empirical studies have reported a positive effect of entrepreneurial orientation and market orientation on firm performance (Gonzalez-Benito et al. 2009, Todorovic and Ma 2008a, Zahra 2008, Baker and Sinkula 2009). This study suggests that interaction orientation is also capable of contributing to superior firm performance in combination with market orientation and entrepreneurial orientation. The next chapter will outline how this strategic orientation approach to firm performance may be applied to Malaysian SMEs.

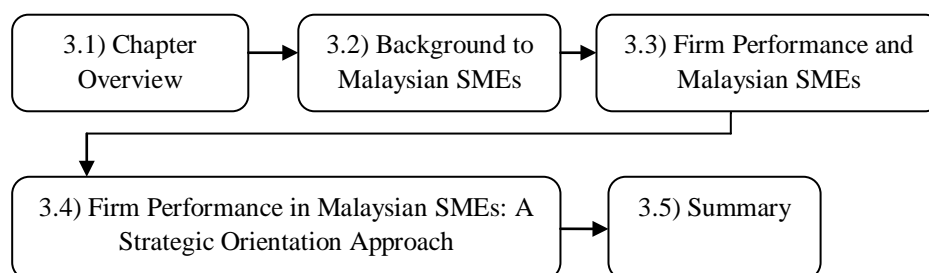
# Chapter 3 MALAYSIAN SMEs AND FIRM PERFORMANCE

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## 3.1 Chapter Overview

After the literature review in the last chapter, this chapter is concerned with establishing this concept of strategic orientation in the context of firm performance for Malaysian SMEs. The first part of this chapter provides a brief background of SMEs in Malaysia, their importance to the Malaysian economy, and the challenges they face and the support provided by the government to Malaysian SMEs. Then, the researcher elaborates the effect on firm performance from strategic orientations and proposes innovation success as a mediating variable and external environment as a control variable of this relationship. Figure 3.1 shows the order in which these issues are discussed in this chapter.

**Figure 3.1 Chapter Organisation**



### **3.2 Background to Malaysian SMEs**

SMEs are an important contributor to economic activity in a country. A report from Organization for Economic Co-operation and Development (OECD) Turin Roundtable, March 2009 identifies SMEs as a major economic player in OECD countries. Asia Pacific Economic Cooperation (APEC) has advised its member countries to place high priority on nurturing SMEs as they help in economic development of the individual nation and encourage the flow of trade and investment activities between different economies in the APEC region (Karikomi 1998). According to OECD (1997), SMEs are a valuable source of employment and future growth prospects for many countries across the globe. In some countries like Italy, South Korea and China, SMEs contribute up to 60% of their total national exports (Knight 2000). SMEs also are believed to account for about 35% of exports from Asia and 26% of exports from developed countries (Organization for Economic Co-Operation and Development 1997).

Not only do SMEs contribute to the economic development of a country, the level of their success also acts as a measure of efficacy of government policy in nurturing entrepreneurial culture in an economy. For instance, Singapore launched a comprehensive policy called SME Master Plan in 1989 to promote entrepreneurship by assisting SMEs in certain areas like tax incentives, financial assistance, technology adaptation, business development and marketing (Schaper and Volery 2007). In Australia, various small business agencies have emerged to help local SMEs in developing and managing their operations. In Malaysia, the government has even set up a ministry for SMEs and entrepreneurs.

SMEs are one of the most important contributors to economic development in Malaysia (Saleh and Ndubisi 2006). It is expected that value-added products produced by SMEs will be worth RM120 billion by 2020, which is half of the total production in the manufacturing sector (Saleh and Ndubisi 2006). Currently, SMEs account for 97% of firms and contribute from 40% to 60% of GDP and up to 70% of employment (National SME Development Council 2009). The past figures recorded by National SME Development Blueprint (2007) outline that SMEs contributed 32% to the GDP and 56.4% to employment in 2005. This shows that the GDP share as well as employment contribution made by SMEs has grown in the last decade.

The 2000 Census by the Malaysian Department of Statistic (DOS) found that 89.3% of the 20,455 establishments in the manufacturing sector and 96.8% of the 192,527 establishments in the services sector were SMEs. Of the SMEs in the services sector; 88.0% are in the retail and wholesale, followed by 4.4% in education and health, 2.9% in professional services, and 2.0% in transport and communication (Refer to Appendix 3, Part A). According to Saleh and Ndubisi, (2006) most SMEs establishments in Malaysia were located around West Coast of Malaysia due to greater economic development, infrastructure and port facilities in the area. Availability of cheap labour, natural forest resources and logging activities in the area has also led to the growth of these industries. Johor has the largest number of manufacturing companies engaged in textiles and apparel and wood-based industries and the second largest number of manufacturing companies in the country is in Selangor, 16.7 %, followed by Perak, 9.4 %, and

Pulau Pinang 8.4%. Malaysian Productivity Corporation (MPC) has projected that Malaysian SMEs will develop a strategic shift from benchmarking and best practices to competitiveness and innovation by year 2010 (Rahman and Zainiah 2008).

In Malaysia, the importance of SMEs first came to prominence with the implementation of the New Economic Policy (NEP) in 1971 and its objective to improve the welfare of its citizens and restructure economic inequities across different ethnic groups (Hoq et al. 2009). Making a concerted effort to aid the development of the SMEs, the Malaysian government implemented the Malaysia Industrial Master Plan (IMP). Further actions targeting the development of SMEs were revised in the action plan of the IMP2 launched from year 2000 to year 2005. SMEs have continued to receive focussed attention in the IMP3 for the period spanning from year 2006 to year 2020 to coincide with the country's vision to become a developed economy by 2020 (Ministry of International Trade and Industry 'MITI' 2005). In brief, the strategic plan for IMP3 for SMEs is focussed on 1) enhancing competitiveness of Malaysian SMEs, 2) capitalising on outward investment opportunities, 3) focus on technology and innovation, 4) providing a cohesive and supportive regulatory and institutional framework and 5) nurturing the service sector.

The Secretariat to National SME Development Council (2005) is responsible for maintaining data on SMEs in the country and it has stipulated that there is no common definition to encompass SMEs in Malaysia. Agencies tend to define SMEs based on criteria such as annual sales turnover, number of full-time

employees or shareholders' fund. Even if there are a few definitions available in the literature provided by the state they mainly refer to SMEs in the manufacturing sector. On 9 June 2005, the National SME Development Council approved the standardised definition of SMEs across all sectors to rectify this gap and facilitate the easy identification of SMEs. According to the SME Development Council definition, a commercial firm can be categorised as an SME on the bases of two criteria, namely 1) number of employees (full time) and 2) annual sales turnover. This action devising clear categorisation and easy identification of SMEs facilitates target-oriented formulation of SME policies, implementation of SME development programmes, effective supervision of SME performance and accurate measurement of their contribution to the economy of the country.

It must be noted here that this study used the criterion of number of employees to define SMEs since Malaysian SMEs were not keen on providing data like their annual sales turnover for a research study. The definition provided by National SME Development Council can be applied to the following sectors, namely 1) primary agriculture, 2) manufacturing (including agro-based), 3) manufacturing-related services (MRS) and 4) services (including information and communication technology). Table 3.1 and Table of 3.2 show the definition of SME based on number of full-time employees and annual sales turnover.



**Table 3.1 Definitions Based On Number of Full-Time Employees**

Sector Size	Primary Agriculture	Manufacturing (including agro-based & MRS)	Services sector (including ICT)
Micro	Less than 5 employees	Less than 5 employees	Less than 5 employees
Small	Between 5 and 19 employees	Between 5 and 50 employees	Between 5 and 19 employees
Medium	Between 20 and 50 employees	Between 51 and 150 employees	Between 20 and 50 employees

Source: Malaysian SMEs Corp.

**Table 3.2 SME Definitions Based On Annual Sales Turnover**

Sector Size	Primary Agriculture	Manufacturing (including agro-based & MRS)	Services sector (including ICT)
Micro	Less than RM200, 000	Less than RM250, 000	Less than RM200, 000
Small	Between RM200, 000 and less than RM 1 million	Between RM250, 000 and less than RM 10 million	Between RM200, 000 and less than RM1 million
Medium	Between RM1 million and RM5 million	Between RM10 million and RM25 million	Between RM1 million and RM5 million

Source: Malaysian SMEs Corp.

### **3.3 Firm Performance and Malaysian SMEs**

#### **3.3.1 Constraints and Challenges of Malaysian SMEs**

SMEs have contributed a significant value to the total manufacturing output, value added products and national employment (SMIDEC 2002). Even with the acknowledgement of the importance of SMEs and the focus on SME development in economic plans, there are still some significant hurdles and challenges faced by Malaysian SMEs (Saleh and Kuppusamy 2007). Saleh and Ndubisi (2006, p.10)

reviewed the research provided by APEC (1994) and summarised the challenges faced by Malaysian SMEs as follows:

- 1) *Lack of comprehensive framework in terms of policies towards SMEs development*
- 2) *Inconsistent definitions of SMEs at the operational level*
- 3) *Too many agencies or channels governing SMEs without effective coordination*
- 4) *Inadequate data and information on the development of Malaysian SMEs*
- 5) *Inability of SMEs to join mainstream corporate structure*
- 6) *Difficulties in accessing loans and other forms of financial assistance*
- 7) *Many SMEs in Malaysia still occupy lands or sites that are not approved for industrial purposes*
- 8) *Underutilisation of technical assistance, advisory services and other incentives made available by the government and its agencies*
- 9) *Lack of skilled and talented workers which affects the quality of production as well as efficiency and productivity.*
- 10) *Non-leverage of various incentives that are provided by the promotion of the Investment Act 1986 and the Income Tax Act 1967*

Table 3.3 below summarises the challenges faced by Malaysian SMEs on a regular basis. In short, there are nine challenges faced by Malaysian SMEs but three are recognised by most studies as 1) access to finance, 2) human resource constraints and 3) lack of knowledge and information.

**Table 3.3 Challenges by Malaysian SMEs**

<b>Challenges</b>	<b>APEC</b>	<b>SMIDEC</b>	<b>Ting (2004)</b>
Access to finance	√	√	√
Human resource constrain	√	√	√
Technology adaptation		√	√
Global competition		√	√
Lack of knowledge and information	√	√	√
Lack of comprehensive SMI policies	√		

Inconsistence definition of SMEs	√		
Many agencies dealing with SMEs	√		
Inadequate data on SMEs	√		

Source: (Ting 2004, Hoq et al. 2009)

### 3.3.2 Government Support Programmes and Incentives

The Malaysian government has initiated a number of incentives in its seventh and eight Malaysian Plans and the Second Industrial Master Plan (IMP2) to aid SMEs in different areas (Saleh and Ndubisi 2006). There are 13 ministries and 30 government institutions/ agencies responsible for assisting SMEs in different areas according to the special expertise of the institution/ agency. Some of these are Ministry of Trade and Industries, Ministry of Finance, Ministry of Entrepreneurial Development, Ministry of Labour and others (Abdullah 1999). A study by Abdullah (1999) found that existing government assistance can be divided into six categories, 1) financial and credit assistance, 2) entrepreneurial and managerial training, 3) technical and vocational training, 4) extension and advisory services, 5) marketing and market research and 6) infrastructure facilities.

#### Financial and Credit Assistance

The difficulties in accessing finance was quite a surprising finding in this study by Abdullah (1999) as the Malaysian government has devised extensive financial help plans and incentives to assist SMEs. For financial and monetary credit assistance, the government has established a variety of specialised financial institutions from the 1970s to lend a hand to SMEs. National Bank of Malaysia provides financial and credit assistance to SMEs through several schemes. The

National Bank of Malaysia has also issued Priority Lending Guidelines which impose targets on commercial bank and finance companies to lend money to SMEs. Commercial bank and finance companies are required to lend a specific amount of money with interest rates below the market rate. The Malaysian government also provides a Credit Guarantee Corporation to provide guaranteed cover to commercial banks which extend loans to SMEs. Other credit facilities provided to SMEs are 1) Development Finance Institutions (DFI), 2) New Investment Fund (NIF) and 3) Enterprises Rehabilitation Fund (ERF). Apart from these government schemes, there are loans made available under the World Bank Small-Medium Scale Enterprises Project, the ASEAN-Japan Development Fund (AJDF) and small loans and credit facilities from Majlis Amanah Rakyat (MARA).

### **Entrepreneurial and Managerial Training**

Entrepreneurial and managerial training is essential for entrepreneurs and their employees to adopt best practices in the field to ensure the survival and success of their SME. In Malaysia, entrepreneurial development and business management training is provided by the National Productivity Council (NPC) and Malaysian Entrepreneurial Development Centre (MEDEC). Apart from these government-mandated agencies, Majlis Amanah Rakyat (MARA) and Small Business Development Centre of the University Putra Malaysia also provide training to entrepreneurs with assistance from NPC.

### **Technical and Vocational Training**

Technical and vocational training can assist entrepreneurs and employees in gaining technical skills related to the day-to-day operations of their firms. Technical training for their specific field of work can be gained from agencies like Standard and Industrial Research Institute of Malaysia (SIRIM), Small and Medium Industries Development Corporation (SMIDEC) (today known as SME Corp. Berhad), Forestry Research Institute of Malaysia (FRIM), Malaysian Agriculture Research and Development Institute (MARDI).

### **Extension and Advisory Services**

Extension and advisory services can be provided in two broad areas, 1) management consultancy services and 2) product quality. Management consultancy services provide managerial and administrative services in activities like provision of supervised credit, preparation of business plan, establishment of an accounting system, preparation of regular income statements, cash budgets and loan management. Product quality is concerned with improving mechanisms of quality control and design to ensure the quality of products is of the required standard. SME Corp., Development of Finance Institutions (DFIs), NPC, MEDEC, SIRIM, Business Advisory Centre and other agencies provide management consultancy services. On the other hand, there are specialised institutions that provide services relating to product quality management. They provide services to assist firms in many areas like equipment selection, plant

layout, design improvement, processing techniques and product quality improvement. SIRIM is mainly responsible for standard testing, registration for quality control, research and development, technical extension and consulting. There are also some agencies devoted to product quality in specific areas—MARDI deals with product quality in food-related industries and FRIM with forest-based products.

### **Marketing and Market Research**

Firms can achieve superior marketing objectives by acquiring innovative marketing techniques, highly-skilled sales employees and good distribution channels (Morrison and Roth 1992). In Malaysia, agencies that provide marketing consultancy services are MEDEC, NPC, the DFIs, and SME Corp. Basically, MEDEC and NPC provide a range of services including self-instruction kits containing training videos and audiotapes on marketing along with texts, samples, illustrations, case studies and other materials. In addition, NPC also provides a range of short-courses particularly in the area of marketing, sales promotion and exporting. The role of SME Corp. is to develop and nurture export-oriented firms to help them become more competitive. For this purpose, SME Corp. Malaysia collaborates with Malaysia External Trade Development (MATRADE) to assist firms in export management and participation in trade fairs and trade missions to boost their overall marketing potential.

### **Infrastructure Facilities**

Infrastructure facilities constitute one of the key areas in which government intervention and support can play a role to foster the growth and development of private enterprises. In Malaysia, infrastructure support for SMEs is provided by government-funded agencies that create enterprise-friendly commercial areas. These include areas, such as Free Trade Zones (FTZs), the Light-Industrial Zones (LIZs), the Licensed Manufacturing Warehouses (LMW) and the Principal Custom Areas (PCAs). Basic infrastructure facilities like electricity, water, and telecommunication required are provided in these enterprise-friendly areas. In addition, these areas are located at strategic locations that have easy access to other facilities such as ports and airports.

### **3.4 Firm Performance in Malaysian SMEs: A Strategic Orientation**

#### **Approach**

As evident from the last section, there is extensive government support provided to Malaysian SMEs. There is a focus in the existing research on the effect of government incentives and assistance on the success of Malaysian SMEs (Saleh and Kuppasamy 2007, Saleh and Ndubisi 2006, Abdullah 1999). But this study takes a different approach to the study of Malaysian SMEs, by focussing on the strategies and actions that these businesses can take on their own accord. It seeks to understand how Malaysian SMEs can take proactive strategies in their own operations to improve their performance rather than focussing on how the help of an external agency like the government can help them. Malaysian SMEs have entered a relative age of maturity where there is a need to focus on their

operations and models as independent businesses rather than state-supported enterprises. This research seeks to identify the effectiveness of their business strategies as proactive commercial enterprises and suggest improvements to further improve them that can help reduce their dependency on government support. With these issues in mind, this research was conceptualised as an investigation into the effect of strategic orientation on firm performance in Malaysian SMEs.

Recent studies on strategic orientation suggest the importance of considering the complexity (complementary, compensatory and contingent nature) of the relationship between strategic orientation and firm performance (Lumpkin and Dess 1996, Todorovic and Ma 2008b, Baker and Sinkula 2009, Shoham et al. 2005, Grinstein 2008). A meta-analysis on entrepreneurial orientation by Rauch et al. (2009) also argues that it is inaccurate to assume the homogeneity of strategic orientation and its effect in different national contexts as the sampling variance is low and suggests that there moderators suitable for each national context must be studied in greater detail. Keeping this point in mind, this thesis attempts to avoid a simplistic reduction of the relationship and develop pathways between the two constructs that are attuned to the real-life complexities and contextual facts that define Malaysian SMEs.

#### **3.4.1 Firm Performance as a Result of Strategic Orientation**

This thesis is based on the premise that a combination of constructs of market orientation, entrepreneurial orientation and interaction orientation can be used to reflect the sum of actions and strategies that Malaysian SMEs can undertake to



achieve superior firm 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).

To explain the archival method, aspects of firm performance especially related to financial performance can be measured from archival data collected from secondary resources kept in the company records (Rauch et al. 2009). On the other hand, the second method uses the perceptions of the owners/ managers in a firm about the company's performance.

This study chose to use perceived indicators to measure firm performance. Although some have argued that the archival data is more ideal and less biased, Zhang (2008); this study finds managerial perceptions as a suitable yardstick to measure firm performance in this study. Firstly, there is no implicit incentive in this research for managers to overstate or understate their performance as they don't stand to gain anything from doing so. Secondly, as this study seeks to understand how managers/ owners initiate a certain set of strategies according to their view of its utility for remedying a situation, this actually necessitates a focus on manager/ owner perceptions and perceived indicators of firm performance are crucial for this study.

Moreover, a study comparing self-reported perceptual assessment and archival data, finds a high correlation between the self-reported perceptual assessment and the archival data (Chandler and Hanks 1993). In fact, Lyon et al. (2000) found

that archival reports like actual annual reports may not be able to capture the complexities of the actual scenario prevailing within a firm. In terms of its reliability and validity, this method of using managerial perceptions is actually as significant as archival data (Lyon et al. 2000, Chandler and Hanks 1993). Also, given the small scale of the SMEs studied here, managerial perception was adequate to furnish the requisite data without complicating things with records etc.

For all these reasons, this thesis found perceived measures of firm performance to be appropriate indicators. The validity of this approach is generally accepted in most studies on strategic orientation. 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 strategic orientations to firm performance is robust, which makes it unnecessary to use complicated indicators like archival financial data.

Perceived indicators of firm performance can be used for financial and non-financial performance. According to Zhang (2008), non-financial gains in firm performance can be measured by analysing improvements in managerial perceptions, firm behaviour and resource allocation. Rauch et al. (2009) explain that non-financial gains in firm performance are related to managerial perceptions like satisfaction and global success rating. But this study will pay more attention to financial aspects of firm performance as it finds the financial performance of

Malaysian SMEs to be a more critical issue to address. Indicators of non-financial performance are not only more nebulous and difficult to accurately measure, they encompass things like employee satisfaction, brand value etc. which are not as relevant to the success of an SME operating on a small scale. Therefore, this study adopts perceived financial performance as an indicator of firm performance and will focus on issues like increase in sales, market share and profits while interrogating managers/ owners from Malaysian SMEs about their perceptions of the comparative improvement brought by strategic orientation in their firms.

### **3.4.2 Innovation Success**

A key trait of any successful business is its ability to continually improve their product offerings and adopt the most cutting-edge marketing techniques. These traits can be subsumed under the concept of innovation. Innovation enables businesses to improve the quality of their products or services, differentiate themselves from competitors and contribute to superior firm performance in the long run (Zahra et al. 1999, O'Donnell and Cummins 2005, O'Dwyer et al. 2009). The word 'innovation' originally comes from the Latin words *in* and *novare* which mean to make something new. Drucker (1999) defines innovation as an instrument used by an entrepreneur in manipulating opportunities for diverse business operations and entrepreneurs must deliberate and make informed choices about the sources or ideas of innovation which can deliver results.

Bessant and Tidd (2007) suggest that innovation is about three core issues—generating new ideas, selecting the good ones and implementing them. *Generating new ideas* relates to the phrase of finding inspirations and aspirations,

conceptualising new ways of doing things, shifting to another context, listening to consumer demand and combining a few existing ideas into something new. Generating new ideas can also occur from constructing an unconventional model for the future and investigating the possible options that could arise within these unconventional models. *Selecting the good ones* is not as simple as it sounds. During such a period of planning entrepreneurs need to be alert about all possible options, their consequences and drawbacks. Usually it is very hard to determine the potentials and outcomes of ideas in the planning stage. One must take a gamble with projections and predictions about an idea whose success can only be definitely reported when it is eventually implemented. *Implementing them* is the stage where the selected ideas are put to test. The knowledge and experience of the owner or manager plays an important role here. As this three-fold process described here shows innovation is full of ambiguity and presumption. In Bessant and Tidd's words, one has to implement an idea to know how effective it is and this can be a challenging thing in the early stage fraught by uncertainties, limited resources and possibilities of failure.

This description also shows the significant demands that innovation makes on a firm's capacities and resources. The owner or manager must be able to manage the process of innovation right from opportunity recognition to the delivery of the end product or service. Ravindranath and Grover (1998) add that other factors such as marketing clout, financial resources, production capabilities might moderate the strength of innovation strength. In Malaysia, existing research shows that only 21% to 42% of the firms surveyed can be considered to be innovative

(Lee and 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 and 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. Malaysian SMEs do not have the large capital outlay or technical expertise to engage in innovation-focussed activities like large multinational corporations, but innovation is still an important parameter for them to improve their performance. Incorporating the right mix of strategies to boost innovation can enable firms to attract more customers and increase sales. SMEs can renew themselves through innovative strategies, adjust to new business environments and even move into new areas of business. For instance, Nokia was once a humble timber company but now a major player in the mobile phone industry.

Although a related concept, *innovation success* is a subsidiary concept of innovation, meant to reflect the extent to which the innovation at hand is able to achieve its projected goals. While innovation is merely generating new ideas, selecting the good ones and implementing them, innovation success is measured through firm's product, process, managerial and marketing innovation (O'Cass and Weeradana 2009). In this study, innovation success is used to identify if the output of the innovation process, for example, wholly new product concept, brand

and line extensions and customer service improvements, are able to achieve their projected goals (Baker and Sinkula 2009).

However, it must be noted here that some studies have also expressed scepticism about the direct linkage between innovation and firm performance. Pelham (1997) argues that innovation does not necessary lead to profitability. Baker and Sinkula (2009) also find that new products or services due to innovation may be popular in the market without increasing market share of the firm due to sales cannibalisation where the new products merely overtaking its existing products. Despite these doubts, there is greater evidence in the literature to support the general relationship between innovation success and firm performance. The importance of innovation success in mediating the effect of strategic orientation on firm performance has hypothetically been accepted. *As Klomp and Leeuwen (2010, pg. 344) argue, recently, the interest in the innovation process has shifted away from the input (R&D) to the output stage (realised innovation or innovation success)*”

Due to the importance of innovation, this thesis will integrate innovation (conceptualised as innovation success) as the mediator between the strategic orientation components (entrepreneurial orientation, market orientation and interaction orientation) and firm performance. Innovation success has been used as a mediator on the effect of strategic orientation on firm performance in a major study by Baker and Sinkula (2009). This approach is premised on the belief that any action or strategy adopted by a firm must be able to deliver a change or improvement in its current set of products, ways of doing business or service standards which will then lead to rise in sales, market share or productivity. In

other words, a strategic orientation taken in any area of the business must lead to innovation success in that field which in turn will then result in superior firm performance.

### **3.4.3 External Environment**

Current researches on entrepreneurial orientation also recommend incorporating possible moderators of strategic orientation. Suitable moderators, mediators and control variables can better reflect and capture actual complexities and contexts in which different strategic orientations operate (Rauch et al. 2009, Zhang 2008). The moderators used in various studies can be roughly divided into two types: external factors and internal factors (Escriba-Esteve et al. 2008). Rauch et al. (2009) argue that size of the business can also be considered as a moderator of entrepreneurial orientation and firm performance, while Escriba-Esteve et al. (2008) argue that the size and age of the business are better counted as control variables instead of moderator variables. Covin and Slevin (1991) suggest that organisational factors like size, structure, strategy, strategy-making process influence entrepreneurial orientation. Escriba-Esteve et al. (2008) identified some other internal moderators for entrepreneurial orientation like level of education, experience, competitive strategy and diversification strategy.

This study believes that external moderators such as competitive strategy and diversification are better seen as strategic orientations rather than moderators. On the other hand, internal moderators of strategic orientations, such as size of business and level of education of entrepreneur, are not as relevant to this study as all the SMEs in this study are made up of businesses of similar size and type.

These questions about internal factors seem to probe how a strategic orientation is produced spontaneously by the cohesion of internal characteristics of a firm. Instead, this thesis is concerned about the actions that firms consciously take and their perceptions about the requisite strategies to encounter certain situations. Therefore this thesis chose to use factors of external environment as antecedent variables affecting strategic orientation (i.e. entrepreneurial orientation, market orientation and interaction orientation. The question is then clearly articulated in the terms of identifying the particular actions that SMEs take as strategic orientations to remedy the conditions imposed by the changing external environment. This study also aims to identify the potential antecedent variables from the previous moderators of strategic orientation.

Kirca et al. (2005) summarised the three most investigated moderators for market orientation and listed them as market/environment turbulence, competitive intensity and technological turbulence. Table 3.4 shows the moderators of market orientation (market turbulence, competitive intensity and technological turbulence) which have been employed in previous studies.

**Table 3.4: Moderators of Market Orientation - Firm Performance Relationship**

Moderator	Supportive	Opposite	Nonsignificant
<b>Market/environmental turbulence</b>	Appiah-Adu (1997) Dimantopoulos & Hart (1993) Harris (2001) Kumar, Subramaniam & Yauger (1998) Pulendran, Speed and Widing (2000)	Greenley (1995) Slater and Narver (1994a)	Becherer and Maurer (1997) Cadogan, Dimantopoulos and Siguaw (2002) Grey et al. (1999) Rose and Shoham (2002) Subramaniam and Gopalakrishna (2001) Tay and Morgan (2002)



<p><b>Competitive Intensity</b></p>	<p>Bhuiian (1998) Dimantopoulus&amp; Hart (1993) Grewal and Tansujah (2001) Harris (2001) Kumar, Subramaniam, and Yauger (1998)</p>		<p>Appiah-Adu (1997) Appiah-Adu (1998) Cadogan, Cui and Li (2003) Gray et al. (1999) Jaworski and Kohli (1993) Kwon &amp; Hu (2000) Slater &amp; Narver (1994a) Perry &amp; Shao (2002) Tay &amp; Morgan (2002) Pulendran, Speed and Widing (2000) Rose and Shoham (2002) Subramaniam and Gopalakrishna (2001)</p>
<p><b>Technological Turbulence</b></p>	<p>Rose and Shoham (2002)</p>	<p>Grewal and Tansuhaj (2001) Slater and Narver (1994a)</p>	<p>Appiah-Adu (1997) Bhuiian (1998) Cadogan, Cui and Li (2003) Harris (2001) Grey et al. (1999) Greenley (1995) Jaworski and Kohli (1993) Pulendran, Speed and Widing (2000)</p>

Source: Kirca et al. (2005)

Kirca et al. (2005) also list some other less-studied moderators, such as market growth, buyer power, demand uncertainty, supplier power and extent of entry barriers. Industry life cycle and the degree of industry concentration have been proposed as control variables on entrepreneurial orientation (Covin and Slevin 1991, Lumpkin and Dess 1996). Some scholars emphasise dynamism, munificence, complexity and other industry characteristics as a positive influence on entrepreneurial orientation (Lumpkin and Dess 1996, Zhang 2008). This study believes that market turbulence and competitive intensity are variables with a suitably broad scope that can subsume these more specific items. While market turbulence can encompass all these items like market growth, demand uncertainty,

competitive intensity can incorporate issues like supplier power, industry concentration. Also, these other terms like buyer power or industry life-cycle are more static in nature and market turbulence and competitive intensity actually capture the more dynamic aspects of these issues which can then have an effect on strategic orientation. The third variable of technological turbulence affects large companies at the forefront of manufacturing and technological innovation and is not as relevant to the type of SMEs studied in this research. Thus, this study employs market turbulence and competitive intensity as factors of external environment with an impact on the level and type of strategic orientation employed in a Malaysian SME.

### **Market turbulence**

Market turbulence is considered as one of the most popular moderators since most studies on entrepreneurial orientation and market orientation have employed it in some form or the other (Jaworski and Kohli 1993, Slater and Narver 1994, Kirca et al. 2005, Escriba-Esteve et al. 2008, Lumpkin and Dess 1996). Escriba-Esteve et al. (2008) state that market/environmental turbulence helps evaluate perceptions of complexity, dynamism and uncertainty in the environment that a business operates in. However, the researcher must mention here that Kirca et al. (2005) also reported that there is insufficient empirical evidence to support the moderating roles of market turbulence.

## **Competitive intensity**

Competitive intensity refers to the extent of competition between different firms in the business to win over customers and carve a larger share in the market. In a state of high competitive intensity, competitors tend to imitate or improve product offerings to erode a firm's product-based advantage. Kohli et al. (1993) predict that competitive intensity will improve the impact of market orientation on firm performance under the influence of the evolving mix of customers and aggressive competitors.

It must be clarified here that instead of using these factors as moderating variables as they have been in previous studies on the subject, competitive intensity and market turbulence are employed in this study as antecedent variable that directly affect strategic orientation. In statistics and social sciences, an antecedent variable is a variable that can help to explain the apparent relationship (or part of the relationship) between other variable that are nominally in a cause and effect relationship. In a regression analysis, an antecedent variable would be one that influences both the independent variable and the dependent variable.

As the table given above shows, there is contradictory evidence about the moderating effect of both these variables. This study chose to scale up the relationship between external environment and strategic orientation in a bid to deliver concrete and conclusive results that will help to either accept or reject their significance. *It must be noted here that this is the first empirical study where market orientation and competitive intensity are empirically tested as antecedent*

*variables rather than moderators that posit to have a direct effect on strategic orientation.*

### **3.5 Summary**

This chapter has further clarified the premise of this study by clearly illustrating the relationship between firm performance of Malaysian SMEs and the strategic orientations they adopt. It has argued that the effect of strategic orientation on firm performance can be measured by perceived financial performance derived from interrogating Malaysian SME operators. Considering the need to nuance the relationship between strategic orientation and firm performance, this chapter has clearly illustrated the mediating role of innovation success and the direct effect of external environment (market turbulence and competitive intensity) in order to capture a more realistic picture of the complex realities of operating a business in the real world. Now it is time to move on to develop a conceptual framework that can clearly articulate the relationships between all the different variables proposed so far and derive hypotheses that can be tested to solve the research questions.

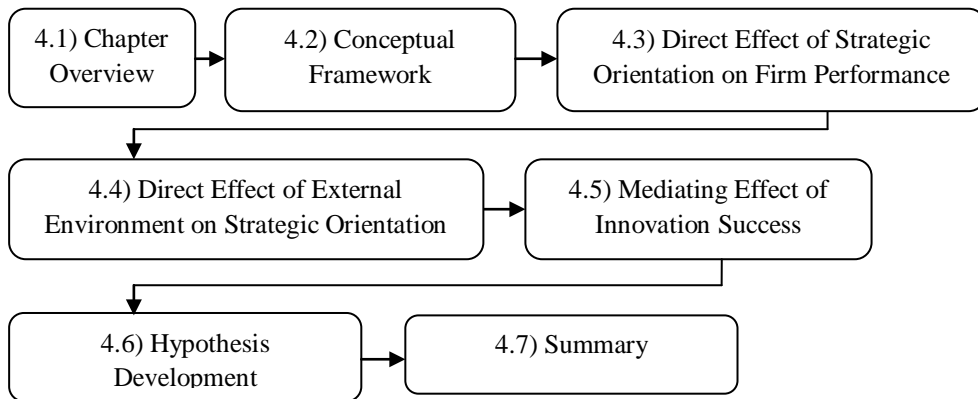
## **Chapter 4 CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT**

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### **4.1 Chapter Overview**

Before this chapter proceeds to a discussion of the conceptual framework, a brief recap of the previous chapters will help to clearly identify the theoretical issues covered so far. The literature review presented in Chapter 2, discussed all the concepts of strategic orientation (entrepreneurial orientation, market orientation and interaction orientation) in detail. Then, Chapter 3 proposed the mediation effect of innovation success and the direct effect of external environment construct (market turbulence and competitive intensity) to better illustrate this relationship in Malaysian SMEs. This chapter synthesises all the constructs reviewed so far into a broad conceptual framework and develops hypotheses to be tested later during the data analysis. Each hypothesis is clearly illustrated and explained to identify the potential relationships. Finally, measurement scales for all the different constructs of strategic orientation, innovation success, external environment and firm performance are described. Figure 4.1 shows the organisation of the various issues discussed in this chapter.

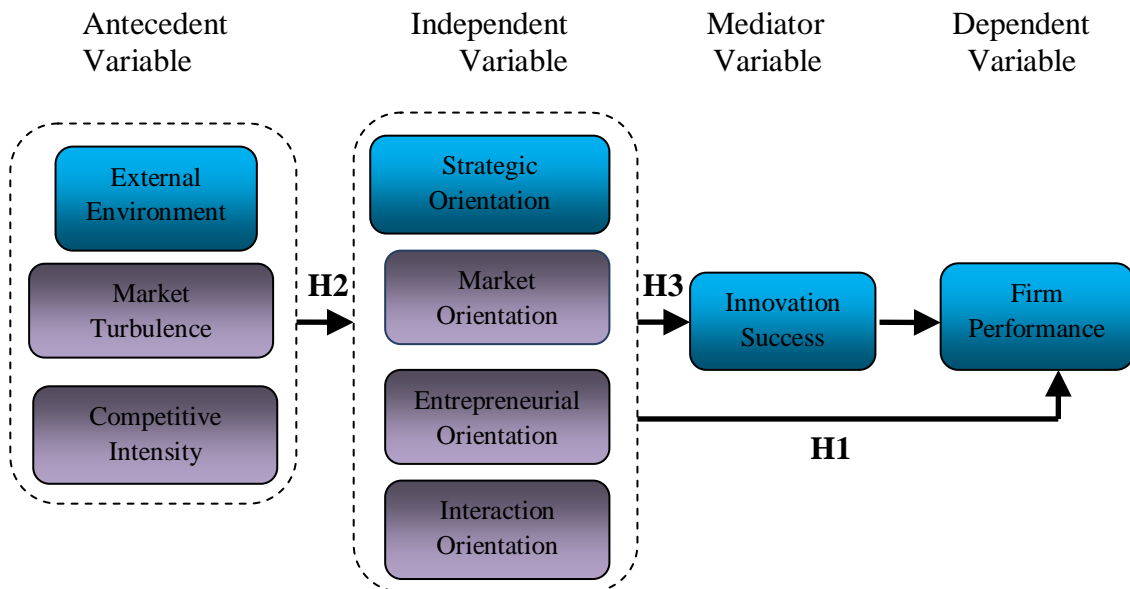
**Figure 4.1: Chapter Organisation**



## 4.2 Conceptual Framework

The conceptual model for this study can be illustrated with a diagrammatic representation of the relationships between all the constructs and their order of influence, as shown in Figure 4.2 below.

**Figure 4.2: Conceptual Framework**



Source: Adopted from Baker and Sinkula(2009); Ramani and Kumar, (2008);Todorovic and Ma (2008);Rauch et al. (2009);Grinstein, (2008); Gawe et al. (2009)Escriba-Esteve et al. (2008)

The flow of action in this conceptual framework is initiated from control variables of external environment; market turbulence and competitive intensity which result in the activation of a specific strategic orientation. In other words, under the influence of certain external conditions of environment, the firm is inclined towards taking up a certain strategic orientation. The next stage relates to the effect produced by the specific strategic orientation at work on the overall firm performance. Here, strategic orientation is the independent variable and firm performance is the dependent variable as firm performance is produced as a result of the strategic orientation in action. However, this flow-on effect from strategic orientation to firm performance may be direct or mediated through innovation success.

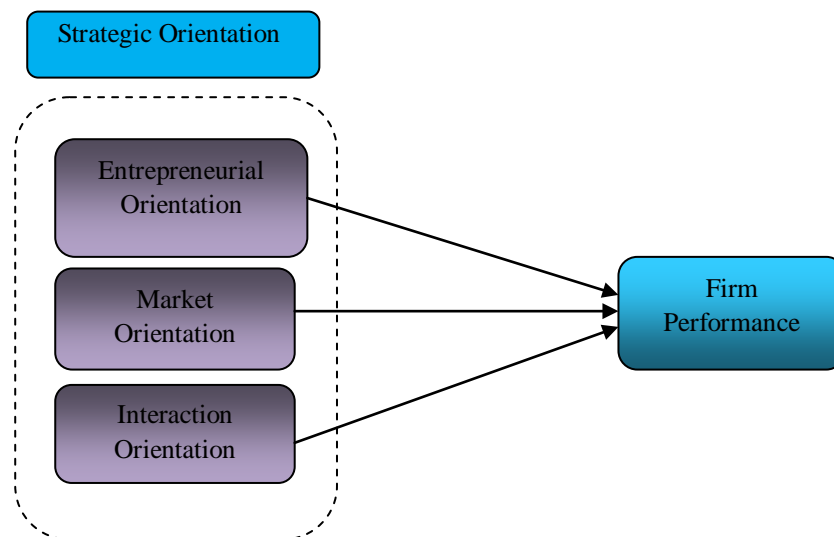
From this broad conceptual framework, specific hypotheses related to each relationship and construct can be derived for testing. In summary, there are three main relationships proposed in the conceptual framework; 1) the direct and positive effect of strategic orientation on firm performance, 2) the direct and positive effect of external environment on strategic orientation and 3) the mediation effect of innovation success on the relationship between strategic orientation and firm performance. The following sections will discuss all these hypotheses in detail.

### **4.3 Direct Effect of Strategic Orientation on Firm Performance**

As established at the very outset of this thesis, this study is concerned with the overall effect of strategic orientation on firm performance. For this purpose, it

selected what it perceived to be the most relevant and significant constructs in the strategic orientation literature targeted at the main areas defining any business. While using the three constructs of entrepreneurial orientation, market orientation and interaction orientation in combination, this study will also evaluate their individual contribution to firm performance. This section outlines the hypothesis proposed for each strategic orientation in this study.

**Figure 4.3 Direct effect of Strategic Orientation of Firm Performance**



Rauch et al. (2009) argued that firms are likely to benefit from entrepreneurial orientation and increase their firm performance. Rauch et al. also suggest that the direct effect of entrepreneurial orientation on firm performance is influenced by the size of the business. The smaller the firm (size of the business), the greater the direct effect of entrepreneurial orientation on firm performance. A study of entrepreneurial orientation among Japanese-cuisine restaurants (SMEs with less than 50 employees) in South Korea demonstrated that the size of the firm is the strongest factor behind firm performance (Lee and Lim 2009). Since the



respondents for this study are Malaysian SMEs (< 50 employees) it is suggested that there will be a direct effect from entrepreneurial orientation onto firm performance. Thus, it is hypothesised that:

*H1a: Entrepreneurial orientation will have a direct and positive effect on firm performance.*

Being one of the oldest concepts in the strategic orientation literature, market orientation has been tested in many studies and generally found to have a significant positive effect on firm performance (Jaworski and Kohli 1993, Narver and Slater 1990, Kirca et al. 2005, Baker and 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.

*H1b: Market orientation will have a direct and positive effect on firm performance.*

The third construct of strategic orientation used in this study is interaction orientation. Although, there needs to be more research to further validate this, the concept as explained in the pioneering research by Ramani and Kumar (2008) seems timely and significant to capture customer service and interactivity-focused market that today's SMEs operate in. Interaction orientation is proposed

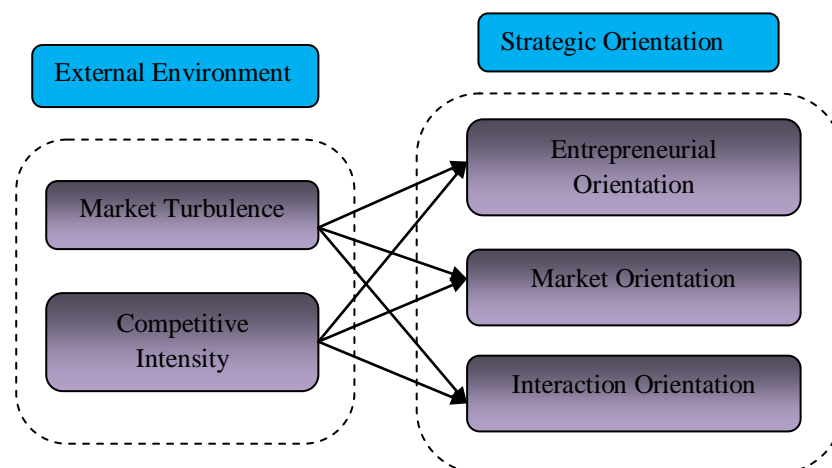
to have a direct effect on firm performance through customer-based profit performance and customer-based relational performance. Thus, it is proposed that:

*H1c: Interaction orientation will have a direct and positive effect on firm performance.*

#### 4.4 Direct Effect of External Environment on Strategic Orientation

Factors of external environment can often influence the level and type of strategic orientation in action and subsequently the output of firm performance. This thesis proposes market turbulence and competitive intensity as dimensions representing external environment. Market turbulence and competitive intensity have often been used as moderators for strategic orientation (Kirca et al. 2005, Ramani and Kumar 2008). This thesis, however, uses these factors of external environment as control variables to examine how market turbulence and competitive intensity can directly affect each component of strategic orientation. Figure 4.4 shows the hypotheses proposing the relationship of market turbulence and competitive intensity on strategic orientation components.

Figure 4.4 Direct effect of external environment



## **Market Turbulence**

The influence of market turbulence on entrepreneurial orientation is rarely reported in the literature. However, this study believes that this is a grave oversight as any changes in market will certainly affect the attitudes and actions of entrepreneurs. In fact, the entrepreneur may be the first in line of this flow-on effect of market turbulence and after adjusting his own orientation the entrepreneur will carry on actions that translate his overall attitude to the situation whether it be in more aggressive marketing or changing the product offering. Thus, it is hypothesised that:

*H2a: Market turbulence will have a direct and positive effect on entrepreneurial orientation.*

Previous studies by Pulendran et al. (2000) and Harris (2001) support market turbulence as a moderator for market orientation, while studies by Appiah-Adu (1998) and Golden et al. (1995) suggest that market turbulence can moderate market orientation/firm performance relationship. Changes in product offerings or customer preference will influence firms to take more targeted or aggressive marketing techniques which will affect their market orientation. Therefore, it is argued that:

*H2b: Market turbulence will have a direct and positive effect on market orientation.*

Interaction orientation, although a new concept in the literature, is argued here to have a significant relationship with market turbulence. As explained before,

market turbulence refers to the stability of customer preferences (Kumar et al. 1998) and this will arguably have a direct controlling effect on interaction orientation which by its very definition is a customer-focussed orientation. Interaction with firms can enable firms to improve their knowledge on customer's taste and preferences (Srinivasan et al. (2002) and deliver competitive advantage (Rayport and Jaworski 2005). In conditions of market turbulence with changing customer preferences, interaction can become a part of their customer strategy to retain its current business. Thus, it is hypothesised that:

*H2c: Market turbulence will have a direct and positive effect on interaction orientation construct.*

### **Competitive Intensity**

Competitive intensity refers to the ability of competitors to erode a firm's product-based advantage by imitating or improving the product being offered (Ramani and Kumar 2008). Like market turbulence, competitive intensity has been regularly used as a moderator for market orientation. A meta-analysis study by Kirca et al. (2005) found that competitive intensity is supported as a moderator for firm performance, but some studies show that the relationship is insignificant (Appiah-Adu 1997, Gray et al. 1999, Slater and Narver 1994, Pulendran et al. 2000, Subramaniam and Gopalakrishna 2001).

Competitive intensity has never been conceptualised in any relationship with entrepreneurial orientation in existing research. But Baker and Sinkula (2009) suggest that a dynamic industry where technology and customer preference

change rapidly may have an effect on entrepreneurial orientation. This study takes on their suggestion on the basis of the belief that when firms face competition from others in the business, the entrepreneur will often be at the frontline of such assaults. The entrepreneur will need to recognise his strengths and weaknesses and take proactive action to counter the situation. Thus, it is argued that:

*H2d: Competitive intensity will have a direct and positive effect on entrepreneurial orientation.*

This thesis proposes that there is a direct effect of competitive intensity on market orientation. When the business of a firm is in danger of being usurped by products offered by competitors, firms will adopt more aggressive marketing techniques to fight off such attempts. Thus, it is hypothesised that;

*H2e: Competitive intensity will have a direct and positive effect on market orientation.*

In their original study, Ramani and Kumar (2008) included competitive intensity as a moderator for interaction orientation. This thesis uses competitive intensity as a control variable that will have a direct effect on interaction orientation. As competitive intensity increases, firms will pay more attention to cementing their relationship with existing customers and delivering superior customer service to attract new customers. Thus, it is hypothesised that:

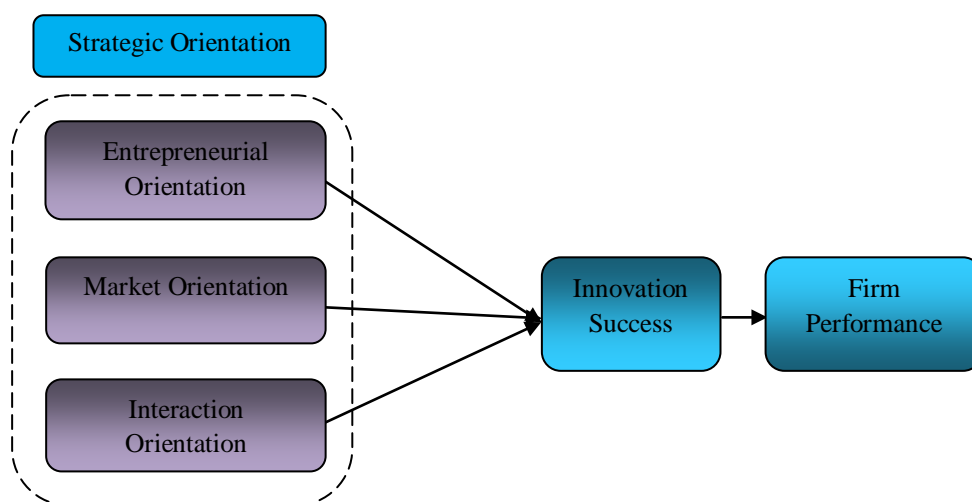
*H2f: Competitive intensity will have a direct and positive effect on interaction orientation.*

In summary, the external environment construct proposed by this thesis which consist of market turbulence and competitive intensity are believed to have a direct effect controlling strategic orientations. Next, this thesis will propose the mediating effect of innovation success on the relationship between strategic orientation and firm performance.

#### 4.5 Mediating Effect of Innovation Success

The relationship between innovation success and firm performance has been regularly reported in the literature (Henard and Szymanski 2001, Roberts 1999, Gatingnon and Xuereb 1997). But it was Baker and Sinkula (2009) who explicitly used innovation success in their study as a mediating variable between entrepreneurial orientation and firm performance. Taking a cue from their study, innovation success is used here to calibrate the relationship between strategic orientation and firm performance and also present a more complex dynamic between the two.

Figure 4.5 Mediating Effect of Innovation Success



Of course, there may be situations where there is a direct flow-on effect of a strategic orientation on firm performance, but more precisely the strategic orientation would have been directed to bring about a positive change in existing business practices or product offerings, which would then have led to a rise in firm performance. For example, a new marketing technique (market orientation) may have led to increased sales (superior firm performance), but that is due to the success of this new marketing technique (innovation success) in capturing new customers. A mediating variable stands between the independent and dependent variable (Creswell 2009) and here innovation success is a mediating variable that calibrates the final output of the dependent variable of firm performance from the independent variables of strategic orientation. Baker and Sinkula (2009) argue that firms with strong entrepreneurial orientation are more likely to adopt innovation in new product concepts that deal with underlying customer needs. This means that when a firm has a high entrepreneurial orientation, it has an entrepreneur with a proactive and creative characteristic and such an entrepreneur will be open to adopt innovative techniques to further his business. In such a situation, the superior firm performance resulting from entrepreneurial orientation will be a result of innovation success. Thus, it is proposed that:

*H3a: Innovation success will mediate the relationship between entrepreneurial orientation and firm performance.*

Although there is limited empirical research reporting on the positive relationship between market orientation, innovation success 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 supports the positive association between market orientation and firm's innovation success and Slater and Narver (1994) consider innovation success as a mediator between market orientation and firm performance since innovation success is the 'core value of creating capabilities'. Thus, it is argued that:

*H3b: Innovation success will mediate the relationship between market orientation and firm performance.*

As the concept of interaction orientation is new, there has been no attempt to integrate the relationship between interaction orientation, innovation success and firm performance. Interaction orientation is conceptualised on the idea that customers in today's interactive markets need the best and most creative types of customer service and relationship management and the focus on innovation is self-evident here. The original 'customer concept' devised by Hoekstra et al. (1999b) refers to a constant focus on customer motivations, satisfaction levels and unmet needs, which necessitate continuous innovation on part of the entrepreneur. Thus, it is argued that:

*H3c: Innovation success will mediate the relationship between interaction orientation and firm performance.*



As a result, three key hypotheses with sub hypotheses for the current study were developed from the conceptual framework. Table 4.1 provides a summary list of the hypothesis developed for testing in this thesis.

**Table 4.1 List of Hypotheses**

H1	<p>H1a: Entrepreneurial orientation will have a direct and positive effect on firm performance.</p> <p>H1b: Market orientation will have a direct and positive effect on firm performance.</p> <p>H1c: Interaction orientation will have a direct and positive effect on firm performance.</p>
H2	<p>H2a: Market turbulence will have a direct and positive effect on market orientation construct.</p> <p>H2b: Market turbulence will have a direct and positive effect on entrepreneurial orientation construct.</p> <p>H2c: Market turbulence will have a direct and positive effect on interaction orientation construct.</p> <p>H2d: Competitive intensity will have a direct and positive effect on market orientation construct.</p> <p>H2e: Competitive intensity will have a direct and positive effect on entrepreneurial orientation construct.</p> <p>H2f: Competitive intensity will have a direct and positive effect on interaction orientation construct.</p>
H3	<p>H3a: Innovation success will mediate the relationship between entrepreneurial orientation and firm performance.</p> <p>H3b: Innovation success will mediate the relationship between market orientation and firm performance.</p> <p>H3c: Innovation success will mediate the relationship between interaction orientation and firm performance.</p>

## 4.6 Measures for Hypothesis Testing

After establishing the hypotheses, the next process is developing the appropriate and accurate measurement scales to capture the constructs needed to test them. As Nunnally and Bernstein (1994, p. 301) suggest, “*the scale need to be ‘well-phrased, relate to the domain and indicate what is demanded from the respondent’*”. This thesis adopted scales of measurement which were developed, used and proven in previous studies as constructs and scales that have been tested and accepted in previous studies can increase the validity and reliability of the data collected in a study (Hair et al. 2005). This section will discuss the scale of measurement chosen for each construct.

### 4.6.1 Measuring Entrepreneurial Orientation (Independent Variable)

For the entrepreneurial orientation construct, this thesis adopted a measurement scale by Gonzalez-Benito et al. (2009) which was derived from Covin and Slevin’s (1989) scale. The following list presents the questions related to measuring entrepreneurial orientation.

#### **List 4.1: Entrepreneurial Orientation Items**

- Q1. We have launched many new products/services on the market during the last five years.
- Q2. The changes introduced in our product/services are usually important.
- Q3. We usually beat our competitors in developing innovative actions.
- Q4. We usually adopt an aggressive attitude towards our competitors.
- Q5. We tend to carry out risky projects when they involve profitable opportunities.
- Q6. When uncertainty is high, we adopt a brave and aggressive attitude to exploit possible opportunities.

#### **4.6.2 Measuring Market Orientation (Independent Variable)**

For the market orientation construct, this thesis adopted a measurement scale developed by Deshpande and Farley (1998b). The scale named MORTN was derived from three scales, i.e. Kohli and Jaworski's (1993) MARKOR, Narver and Slater's (1990) MKTOR and Customer Orientation Scale by (Deshpande et al. 1993). List 4.2 shows the items of market orientation.

##### **List 4.2: Market Orientation Items (MORTN)**

- Q1. We continually monitor customers and competitors to find new ways to improve customer satisfaction.
- Q2. We freely communicate information about our successful and unsuccessful customer experiences with our staff.
- Q3. Our strategy for competitive advantage is based on our understanding of the customer's need.
- Q4. We are more customers focused than our competitors.
- Q5. We survey end-users at least once a year to assess the quality of our products and services.
- Q6. Our business objectives are driven primarily by customer satisfaction.
- Q7. We measure customer satisfaction systematically and frequently.
- Q8. We have regular measures of customer service.
- Q9. I believe this business primarily exists to serve customers.
- Q10. In this business, data about customer satisfaction is disseminated at all levels on a regular basis.

#### **4.6.3 Measuring Interaction Orientation (Independent Variable)**

Next, for the interaction orientation construct, this thesis adopted the measurement scale named INTOR developed by Ramani and Kumar (2008). The scale measures interaction orientation from four different aspects i.e. customer concept, interaction response capacity, customer empowerment and customer-value management. The following list illustrates these four dimensions and questions within each dimension of interaction orientation.

### **List 4.3: Interaction Orientation Items**

#### **Customer Concept**

- Q1. This firm believes that every customer cannot be satisfied with the same set of products and services.
- Q2. This firm consciously seeks to identify and acquire new customers individually.
- Q3. This firm believes that customer reactions to marketing action should be observed at the individual level.

#### **Interaction Response Capacity**

- Q4. This firm analyses past customer transactions at the individual customer level to predict future transactions from that customer.
- Q5. This firm has systems in place that record each customer's transactions.
- Q6. This firm can identify all transactions pertaining to each individual customer.
- Q7. In this firm, all staff-members who deal with customers have access to information about the transactions of individual customers at all time.

#### **Customer Empowerment**

- Q8. This firm encourages customers to give feedback about its products and services.
- Q9. This firm encourages customers to share opinions of its product or services with other customers.
- Q10. This firm encourages customers to participate interactively in designing products and services.

#### **Customer Value Management**

- Q11. This firm has an excellent idea of what each individual customer has been contributing to its profits.
- Q12. This firm predicts what each individual customer will contribute to its profit in the future.
- Q13. This firm computes the revenue generated as a result of every marketing action directed at an individual customer.

#### **4.6.4 Measuring Innovation Success (Mediating Variable)**

The measurement scale of innovation success used for this thesis was established by Baker and Sinkula (2009). Although Baker and Sinkula's scale consists of 10 point scales, this thesis modified the scale to 7 points. List 4.4 shows the items used to measure innovation success.

#### **List 4.4: Innovation Success Items**

- Q1. The rate of new innovation success rate in our firm relative to direct competitors
- Q2. The rate of differentiation between your innovations and your direct competitor's innovation
- Q3. The degree to which you beat your direct competitors in the market with innovations
- Q4. The rate of new innovation relative to your direct competitors

#### **4.6.5 Measuring Market Turbulence and Competitive Intensity (Control Variables)**

Previously, market turbulence has only been tested on entrepreneurial orientation but not on market orientation or interaction orientation, while competitive intensity has been tested on market orientation and interaction orientation but not on entrepreneurial orientation. This study tests market turbulence as competitive intensity on all three strategic orientations in the capacity of a control variable with direct effect. List 4.5 shows the items of environmental turbulence and competitive intensity adopted in this thesis.

#### **List 4.5: Market Turbulence and Competitive Intensity Items**

##### **Market Turbulence**

- Q1. In our kind of business, customer's product preference change quite a bit over time.
- Q2. Our customers tend to look for new products all the time.
- Q3. Sometimes our customers are price-sensitive, but on other occasions price is relatively unimportant.
- Q4. There is a demand for our product-related needs that are different from those of our existing customers.
- Q5. New customers tend to have product-related needs that are different from those of our existing customers.
- Q6. We cater to most of the same customers who were our clientele in the past.

##### **Competitive Intensity**

- Q7. Competition in our industry is quite intense.

- Q8. There are many sales-promotion campaigns in our industry.
- Q9. Anything one competitor can offer others can match readily.
- Q10. Price competition is a common practice in our industry.
- Q11. One hears of a new competitive move almost every day.
- Q12. Our competitors are relatively weak.

#### **4.6.6 Measuring Firm Performance (Dependent Variable)**

The outcome (dependent variable) of this study relates to the combined effect of the three strategic orientations on firm performance. As explained in the last chapter, this study will only use perceived financial performance as an indicator of firm performance. Past studies have indicated that managerial perceptions are as comprehensive and significant than archival data, if not more so (Lyon et al. 2000, Chandler and Hanks 1993). Also, given the small scale of the SMEs studied here, managerial perception was adequate to furnish the requisite data without complicating things with records etc. The perceived firm performance, here, relates to financial aspects of the business and overlooks non-financial gains such as employee satisfaction or brand reputation. List 4.6 shows the items used to measure firm performance.

#### **List 4.6: Firm Performance Items**

- Q1. Over the last 3 years, relative to major competitors, our company's overall sales revenue has been...
  - Q2. Over the last 3 years, relative to major competitors, our company's overall return on investment has been...
  - Q3. Over the last 3 years, relative to major competitors, our company's overall return on assets has been...
- \*If your company has operated less than 3 years, please assume that the firm performance is the latest.

#### **4.7 Summary**

In summary, this chapter has presented a broad picture of the conceptual scaffolding supporting this research. The conceptual framework proposed the relationships between strategic orientation components, innovation success, external environment and firm performance. In total, three key hypotheses and 12 sub-hypotheses were developed from the conceptual framework. The different measurement scales adopted to measure the constructs were also described. The next chapter focuses on the research methodology guiding this thesis and will describe the process of data collection and data analysis used to test the hypotheses.

## **Chapter 5 RESEARCH METHODOLOGY**

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### **5.1 Chapter Overview**

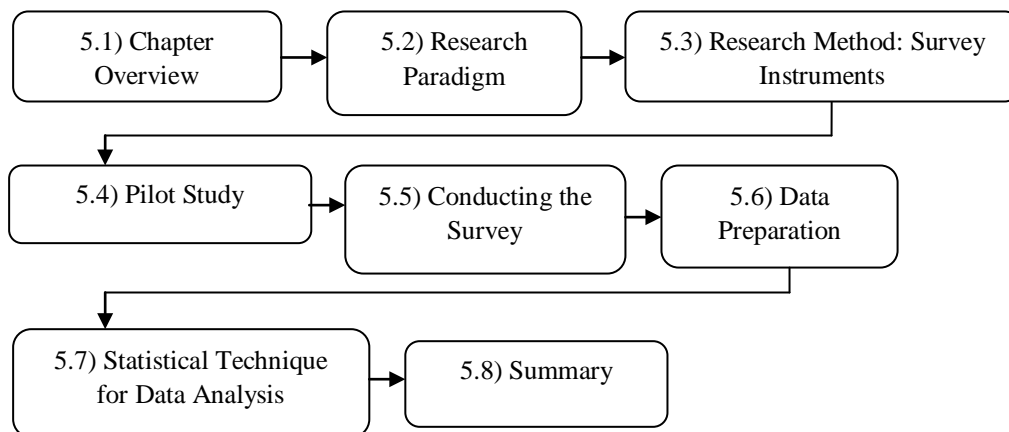
Before beginning a discussion of the research methodology in this chapter, a brief overview of the areas covered in this research is needed to iterate how the methodology followed here adheres to the issues and objectives outlined so far. An extensive literature review in Chapter 2 presented a detailed overview of the different components of strategic orientation used in this thesis. Chapter 3 presented a research background of Malaysian SMEs and how the firm performance/ strategic orientation can be conceptualised here. Chapter 4 presented the conceptual framework establishing the relationship between the different variables and the hypotheses for the thesis.

This chapter outlines the methodology adopted in this research process to collect the data from the chosen sample and test the hypotheses. The discussion begins with the general research paradigm underlying this study and then discusses the use of self-administered survey questionnaires as the instrument for data collection. Then, the discussion proceeds to the stage of data collection. This process involved two stages—first was the pilot study where the survey questionnaire was tested and refined by feedback from selected SME experts; second stage related to the actual data collection where survey questionnaires were distributed to consenting participants in the study. After data collection, the



next step is to prepare the data for analysis by cleaning and editing the data to ensure accuracy and normality. Finally, the data is submitted to analysis and the last section describes all the statistical techniques used to analyse the data. Figure 5.1 shows the order in which all these sections are presented in the chapter.

**Figure 5.1 Chapter Organisation**



## 5.2 Research Paradigm

Research paradigm or research design is defined as the “*plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis*” (Creswell 2009, p. 3). Creswell (2009) has identified four research paradigms that can guide a study: post-positivism, constructivism, advocacy/participatory and pragmatism. Lincoln and Guba (2000) have argued that there are five research paradigms, namely, positivism, post-positivism, critical theory, constructivism and participatory. Wibowo (2008), on the other hand, argues that regardless of the specificities of each paradigm, qualitative and quantitative, are the two main approaches that define any research. This categorisation is a more holistic measure of the type of research approach

adopted by any study, after which specific issues pertaining to research paradigm can be defined.

A quantitative approach uses numbers and statistics to validate or prove any research hypothesis (Kerlinger and Lee 2000, Denzin and Lincoln 2000). In addition, quantitative approach is the most popular research approach used to examine relationship between different variables and measure objective theories (Creswell 2009). Any research approach is also defined by the underlying assumptions it has about the nature of the world and the knowledge it can gather about the issue at hand. Quantitative research is often premised on a positivist ontology, which is best described as a worldview which assumes that there is a tangible reality which can be accessed and interpreted by human cognition. As Creswell (2009, p. 3) states, "*the knowledge that develops through a positivist lens is based on careful observation and measurement of the objective reality that literally exists 'out there' in the world*". Based on such an assumption, research seeks to neutrally explain and predict the relationship between constructs, objects or events (Wibowo 2008, Smith 1983). In order to explain or to predict the existing relationships, a quantitative methodology based on equations and statistical modelling is employed. Thus, this thesis is based on a quantitative approach, with a positivist ontology and empiricist epistemology. The next section will discuss the research method for collecting the data with survey instruments.

### **5.3 Research Method: Survey Questionnaire**

Since this thesis seeks to examine how owners/ managers in Malaysian SMEs view the effect of strategic orientation on firm performance, they needed a research instrument which could investigate and measure their perceptions. However, these strategic orientation constructs resemble latent variables that cannot be directly observed but need to be inferred from indicators (Schumacker and Lomax 1996). In other words, strategic orientation is not made up of empirically existing variables that can be measured directly, but are latent variables that need to be inferred from perceptual or self-reported measurements. A survey questionnaire is perceived as the most accurate tool for measuring self-sufficient existing relationship, object or events as well as self-reported beliefs and behaviours (Newman 1997).

Survey questionnaires are the most common data collection method in quantitative research (Malhotra 2008). As a research tool, a self-administrated questionnaire has several advantages over other methods as: 1) they are easy to administer; 2) they are relatively inexpensive per unit; 3) they make it possible to gather a wide variety of data (Newman 1997). Other scholars have pointed out some more advantages of survey questionnaire as a research method. Van Meter (1976) has suggested that a self-administered questionnaire is expected to achieve a moderately high response rate. De Vaus (1995) also adds that survey questionnaires can save time and costs of travel since this method of research does not require the researcher to be physically present in the field. Self-administered surveys are based on pre-decided questions which lead to a relative neutral

interaction between researcher and respondents, unlike other methods like telephone and face-to-face interview where biases can set in during the process of free-flowing conversation (De Vaus 1995, Newman 1997). Also, a qualitative design was not used prior to constructing the survey questionnaire due to this study using the established questionnaires that has been validated previously.

The researcher developed the survey questionnaire used in this study on the basis of previous studies. It consisted of a combination of 64 close-ended items divided into 10 sections (i.e. respondent profile, marketing strategy, customer approach strategy, entrepreneurial skills, government incentives, customer behaviour and competition, communication between firm and customer, firm performance and firm profile). This study has the survey questionnaire arranged with the respondent profile at the beginning rather than at the end due to Malaysian respondents' familiarity with the style. The arrangement of the questionnaire sections does not affect the result of the study. Furthermore the questionnaire should be simple and easy to understand to avoid measurement errors from defective questionnaires structure (Dillman 2007).

A standardised 7 point Likert scale (where 1 is 'strongly disagree' and 7 is 'strongly agree') was used for most questions in the survey except for the sections dealing with the respondent profile and the firm profile which needed factual information rather than judgment from the respondents. Likert-type scale is an ordinal scale comprised of a set of qualitative variations of a particular attribute or entity ordered sequentially from least to most (Nunnally and Bernstein 1994) and has been commonly used in business research (Sakaran 2000). It allows the

survey subject to respond to a certain statement in a clear and ordered form (Kerlinger and Lee 2000).

As entrepreneurs and employees from Malaysian SMEs constituted the sample for this research, back translation into Malay language was necessary. According to Zikmund et al. (2010) back translation refers to the process of translating a questionnaire to another language and to translate it back into the original language by another independent translator. Back translation is suggested as the most accurate method of translation in survey research (Douglas and Craig 2007). Two professional translators from the University of Malaysia Kelantan's Language Department were engaged; the first translator translated the survey instrument into Malay, while the second translator translated it back into English. The comparison of the two translated versions showed that the surveys matched each other and the Malay version questionnaire was equivalent to the original questionnaire in terms of its content and meaning.

#### **5.4 Pilot Study**

The data collection in this study was spread over two stages, where a pilot study was conducted in the first stage before the actual survey with respondents. The pilot study was conducted to refine the questionnaire, identify any loopholes in the questionnaire and anticipate any logistical problems during the actual survey. The objectives of the pilot study are as follows:

- 1) The pilot study is conducted to gather feedback about the language used in the questionnaire. Since this study is conducted among entrepreneurs with differing

levels of literacy, it is necessary to ensure that the language used in the survey is understandable by all respondents. High level of complexity will reduce the response rate as well as the induced bias towards those with a higher level of education (Bennett 2001). Respondents were asked to point out any part of the questionnaire they found to be unclear or complicated.

2) The pilot study was conducted to assess the ease of the respondents in completing this survey. This was intended to detect any flaws in the survey in terms of appearance and format as the survey must appear appealing and easy-to-navigate in order to motivate the respondents to complete the questionnaire and increase the response rate.

3) The pilot study also attempted to gather any additional information about SMEs from the respondents that could help to further refine the research and address issues that may have been left out.

The pilot study was conducted informally among two groups of participants, SME experts and SME operators, with three SME experts at University Malaysia Kelantan and 15 SME operators mostly from the Kota Bharu area, Kelantan, Malaysia. SME operators were asked to judge if they could understand and answer the questionnaire in the actual survey. Most of them stated that the questionnaire was easy to understand and navigate. However, some of the SME operators expressed their concern about the confidentiality of their information, but their concerns are allayed after they were explained the steps taken to protect their information.

On the other hand, the feedback given from the SME experts at the university contained a lot more information and the researcher feels that it is worthwhile detailing their individual insights.

**SME Expert A** commented on the suitability of the word '*keberterusan*' in the introduction part of the questionnaire, saying that *keberterusan* which literally means 'survival' might not carry the exact meaning as 'survival of a business' in the SME context. In response to this comment, the researcher decided to eliminate the particular sentence. Other than that, SME expert A also suggested eliminating the open-ended questions in section F on government incentives. According to SME expert A, SME operators tend to neglect open-ended questions and the best way to get information from them is through closed-ended questions.

**SME Expert B** gave many comments covering almost every part of the questionnaire. First of all, SME expert B commented on the structure of the questionnaire. He advised the researcher to simplify the introduction of the questionnaire, to shift the instruction part on the first page to inside the questionnaire, to include a box for ID of the respondent for better coding and identification, and to change the format of sections from numeric to alphabetical style for better coding in the analysis stage. SME expert B also commented on the appropriateness of language used for translation at certain points. The researcher took appropriate precautionary measure by carefully rectifying every single issue raised by referring to the language expert and several dictionaries and thesauruses. Last but not the least, SME expert B also provided some comments on the scale

used for the pilot study. SME expert B said that question 5 and question 6 in Section C (Customer Approach Strategy) actually referred to the same thing and suggested eliminating one of the questions. Consequently, question 6 was eliminated. SME expert B also advised the researcher to modify question 13 in section G from an open-ended one to a close-ended question. Earlier respondents were asked to quote a figure in reply to this question, now the question was changed with pre-described range of values which the respondents could choose by just ticking a box to select the right answer.

**SME expert C** commented on the measurement of firm performance and suggested increasing the number of questions about firm performance indicators. Other possible questions on firm performance might be 1) employee job-satisfaction, 2) public image or goodwill and 3) level of long-run profitability. This study, however, decided to use the original questions for firm performance measuring the overall sales revenue, overall return on investment and overall return on assets. The researcher felt that the variables of firm performance measurement proposed by SME expert C do not fit with the conceptual framework of this study. This thesis considers perceived financial performance as a valid and comprehensive indicator of firm performance and suggestions like goodwill, job-satisfaction and long-term profitability either fit in perceived non-financial and archival indicators of firm performance.



## **5.5 Conducting the Survey**

This section will discuss the actual process of the survey conducted. This study followed the guidelines prepared by the Human Resource Ethics Committee, Victoria University for projects involving human participants. The researcher has considered all of the elements involving confidentiality and ethical conduct of this study outlined in the guidelines. Since the majority of SMEs expressed their concern about their personal information and the possibility of some third party making unwarranted inferences from the responses given by them, the researcher does not provide the exact names of SMEs participating in the study. The procedures to ensure confidentiality are as follows: 1) no name will be recorded with any data and respondents, 2) anonymity will be assured as respondents are not required to put down their names, firm's name or firm's address, 3) computers, where the electronic data of the fieldwork is stored by the researcher, are protected by user name and passwords.

### **5.5.1 Survey Sample**

The Malaysian Census on Establishment and Enterprises conducted in 2005 identified that 99.2% of business establishments in Malaysia are SMEs. Malaysian SME Business Directory by SME Info Portal (2010) is a reliable public website that lists registered SMEs from all business sectors including manufacturing, manufacturing related services, mining and quarrying, services (including ICT), construction, primary agriculture and others. SME Info Portal is also an interactive website that is linked with relevant government agencies (i.e. SME Corp. Malaysia, Ministry of International Trade and Portal and Official Malaysian

Government Portal). It provides information on current trends, support functions, events, news and promotions to Malaysian SMEs.

This study chose to focus on SMEs operators in the service industry (including ICT), who were registered with the SME Malaysian Business Directory by SME Info Portal (2010). The focus on service sector SMEs was made to fit with contemporary marketing thought as these firms are more concerned with innovative marketing than those in the manufacturing or agricultural sector which are more concerned with production (Gronroos 1994, Coviello et al. 2002, Day and Montgomery 1999). In addition, the access to the database for the service sector was readily available compared with difficulties in accessing the manufacturing sector database. This was a major contributing factor in excluding the manufacturing sector from the study. According to the public website, there are 5423 SMEs (11 July 2010) under the services (including ICT) 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 and 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 to this particular question alerted

the researcher to the suitability of the respondent to the survey and helped eliminate responses from lower-level employees who are not concerned with firm management and not suited to the purpose of the research.

### **5.5.2 Data Collection**

The actual data collection was conducted from mid-November 2010 to mid-January 2011. The owners or entrepreneurs of the selected firms were contacted by mail and informed about the nature of the study; they were requested to complete and return the survey questionnaire in a self-addressed, stamped return envelope. The package included the survey questionnaire, the ethics approval letter from Victoria University Human Research Ethic Committee and letter of support from an influential government agency for SMEs called SME Corp. Malaysia. Since surveys with SMEs are known for their low response rates Suprato et al. (2009), it was hoped that a letter of support from SME Corp. Malaysia would encourage the maximum number of SMEs to respond. The selected SMEs were expected to return the survey questionnaires within the next four weeks (from 20<sup>th</sup> November 2011 until 20<sup>th</sup> December 2011). Since the response rate was not encouraging and only 32 filled questionnaires were received by 20<sup>th</sup> December 2011, the researcher decided to hire 15 research assistants to help with a follow-up survey. Undergraduate students majoring in Business and Entrepreneurship at the University of Malaysia Kelantan were selected and trained for the process. The research assistants visited the selected SMEs, collected the completed survey questionnaires and provided additional questionnaires if the firms had lost or misplaced the copy previously mailed to them. At the end, there

were 528 completed questionnaires from the 1500 questionnaires distributed so far, of which 496 were collected by research assistants and 32 belonged to the earlier questionnaires returned by mail. Out of the 528 questionnaires, only 473 questionnaires were usable for analysis. The other 55 survey questionnaires were not usable due to two reasons. Firstly responses with more than 15% missing data or more than 10 questions left unanswered were to be excluded and there were 18 of these. Secondly, the study required respondents to be an owner, CEO or top-level personnel, and 37 respondents whose profile did not fit this criterion were eliminated. As a result, the response rate for the returned questionnaires usable for analysis was 31.5%. Table 5.1 summarises the final data available after the selection process.

**Table 5.1 Available Data after the Selection Procedure**

Respondent (Firms) (SME Info Portal website) (2010)	Number	Percentage
Sampling frame (from the population of database)	1500	100%
Total response (from the sampling frame)	528	35.2%
Non usable response (from the total response)	55	3.7%
<b>Usable response (usable response from sampling frame)</b>	<b>473</b>	<b>31.5%</b>

It can be seen that the response rate is 31.5% which is above the average of 20% which is normally found in survey-based research (Young 1996). The tool of statistical analysis SEM used for this study requires more than 250 respondents

for a good analysis and this condition is satisfied by the number of usable responses (n=473).

## **5.6 Data Preparation**

Data preparation is important before data entry and analysis can begin. Data preparation focuses on defining variables, assigning appropriate numeric codes to alphanumeric data and dealing with missing data. Preparing the data involves several processes from data source to data filing (Coakes and Steed 2008). This section will clarify the steps taken during data preparation with coding and editing the data, screening the data, detecting missing values and the remedies used to treat missing values.

### **5.6.1 Data Coding**

The data gathered from survey research needs to be coded for transcribing before they are keyed into the computer (Sekaran 2003). Coding is the term used to translate lengthy question responses and information to brief and specific categories for ease of analysis (Kerlinger and Lee 2000). Following the usual protocol in this process, this study used character symbols to code the data and clearly identify the information represented in the data according to the thematic category it belonged to, such as, gender, age, entrepreneurial orientation, innovation success and so on. The coding sheet is presented in Appendix 4, Part C.

### **5.6.2 Initial Data Screening and Statistics Overview**

After the coding process, the data was keyed in using software version 18. The data need to be edited in order to make sure there were no faulty entries during the data entry in SPSS. Initial data screening is conducted through simple analysis such as minimum, maximum, and standard deviation to check if the scores are out of the range. These methods are commonly used as overview statistics before analysis of the data. Other statistic methods used are Pearson correlation and cronbachs alpha. Pearson's correlation measures the magnitude and direction of correlation relationship between two variables, Hair et al. (2006), where 0 indicates no relationship and 1 (+or-) indicates the strongest relation (Ferrer 2010). Correlation of  $r=0.5$  is considered as appropriate but if the value hits 0.8 or above, it indicates that the measures are not measuring something significant (Ferrer 2010). Cronbach's alpha ( $\alpha$ ) is used to measure inter-item consistency within a selected measure (Babbie 2005). According to Hair et al. (2006), alpha levels of 0.6 – 0.7 are considered as moderate and are recommended for acceptable alpha levels.

### **5.6.3 Missing Data**

According to Hair et al. (2006), missing data can arise from two sources—they can either originate from the researcher or the respondent, due to data entry error or data collection procedure by the researcher or due to the refusal of respondents to answer a certain part of the questionnaire. Missing data is common in multi-variates analysis and it can affect the generasability of the results (Aryani 2009). To remedy a situation of missing data, two actions can be taken—either delete the entry or apply some technique to make up for the missing data. However to delete

the entry means to reduce the sample size which can then reduce the validity of the data. According to Hair et al. (2006), missing data can either be ignorable or not ignorable. Missing data can be ignorable when it is inherent in the technique used (Little and Rubin 2002, Schafer 1997). On the other hand, when the statistical tool applied such as 'Analysis of Moment Structure' (AMOS) requires a complete data set then the missing data is non-ignorable. As AMOS data is applied for this study, the missing data is not ignorable. Therefore, this thesis chose not delete the entry and applied estimation-maximisation (EM) method for missing data in SPSS. According to (Ferrer 2010, Peters and Enders 2002), EM method is better than listwise and pairwise deletion as it will not lead to bias parameter estimates and inflated chi-square values like listwise and pairwise. Also, EM method is more suitable for this study as the missing data is less than 5% and is only placed at random locations which will not skew the data at any specific section (Allison 2003, Peters and Enders 2002, Kline 2005b, Ferrer 2010).

#### **5.6.4 Multi-Variate Outliers**

Multi-variate outliers detection is conducted after examining the missing value. According to Hair et al. (2006), an outlier refers to as an extreme observation value that is substantially different from values observed in normal observation. Outliers need to be carefully managed as they can have a serious impact on statistical analysis (Hair et al. 2006). Aryani (2009) suggests that an outlier cannot be classified as beneficial or problematic but has to be viewed within the context of analysis. For instance, beneficial outliers "*maybe an indication of a population*

*characteristic that would not be discovered in the normal course of analysis and problematic outliers are not representative of the population”* (Aryani 2009, p. 108). This study examines multi-variate outliers using Mahalanobis d-squared statistic by AMOS to detect any extreme value from the centroid (Mahalanobis distance). Outliers can be handled in two ways—retention or deletion. Normally, outliers are retained except if they are proved to be abnormal or not representing any observation in the population (Hair et al. 2006). This thesis chose to reduce the outliers since it will influence the results of the analysis.

#### **5.6.5 Multi-Variate Normality**

Normality is the reflection of the distribution of sample that matches a normal distribution (Aryani 2009). According to Gravetter and Wallnau (2000), a normal data distribution is represented by a symmetrical, bell-shaped curve with most frequencies in the middle and lower frequencies on both ends. A normal distribution in sample data is important especially when the researcher intends to conduct a multi-variate analysis. In fact, in some parametric analysis a normal data distribution is part of the requirement (Hair et al. 2006). In addition, Hair et al. (2006) argue that the data needs to act in accordance with the statistical assumptions for a successful analysis as statistical tests conducted on non-normal data may be invalid (Kerlinger and Lee 2000). Non-normality can also be related to the sample size as a small sample size will cause larger non-normality distribution whereas a large sample will have less non-normality.



Hair et al. (2006) state that non-normality in data can be recognised by the shape of the offending distribution. Technically, there are several ways to test the normality of the data, including histograms, stem-and-leaf plots and boxplots, normal probability plots and detrended normal plots. Also, the degree of normality can be measured from the value of the skewness and kurtosis. Hair et al. (2006) defined skewness as the measurement of the symmetry of a distribution. If the skewness is piled to the left, it is positively skewed, and if the skewness piled to the right, it is negatively skewed (Cunningham 2008). On the other hand, kurtosis refers to the highest point of a distribution that measures which scores are clustered together (Cunningham 2008). According to Coakes et al. (2008), the value for skewness and kurtosis need to be zero in order for the observed distribution to be exactly normal.

This thesis used a method suggested by Byrne (2010) to assess the normality distribution of the data. According to Byrne (2010), C.R. value can indicate the normalised estimate of multivariate kurtosis and C.R. value needs to be less than 5.00 in order to be normally distributed. A normalised estimate of multivariate kurtosis (C.R. value) for CFA (4.174) and the structural model (4.971) are within the acceptable range of a normally distributed data (Refer to Appendix 2, Part D)

#### **5.6.6 Multi-Collinearity**

Multi-collinearity exists when there are more than one variable measuring the same value (Hair et al. 2006). Multi-collinearity can be detected using the value of correlations. According to (Pallant 2005), a value of 0.8 or 0.9 shows that there is a relation of multi-collinearity between two variables. There are several ways to

deal with multi-collinearity: 1) eliminate the variable 2) combine the redundant variables into a composite variable (Kline 2005a). In this research the assessment of multi-collinearity was performed using construct reliability and discriminant validity.

## **5.7 Statistical Techniques for Data Analysis**

There are two steps that are needed before undertaking structural equation modelling on the data—exploratory factor analysis (EFA) using principal component analysis and confirmatory factor analysis (CFA). After completion of EFA and CFA, this study employed structural equation modelling (SEM) using AMOS for the final data analysis. The justification for all these methods and the advantages of SEM will be explained in the following sections.

### **5.7.1 Exploratory Factor Analysis**

Factor analysis is a ‘data reduction technique used to reduce a large number of variables to a smaller set of underlying factors that summarise the essential information in the variables’ (Coakes and Steed 1999). Factor analysis is also conducted in order to make sure that the items belong to the same construct (Wibowo 2008). There are a few methods of extraction available for conducting factor analysis. SPSS 17.0 offers seven methods of extraction such as 1) principal component, 2) unweighted least squares, generalised least square, 3) generalised least squares, 4) maximum likelihood, 5) principal axis factoring, 6) alpha factoring and 7) image factoring. The purpose of conducting EFA is to make sure that the items are valid and reliable before proceeding to confirmatory factor

analysis and structural equation modelling. Further, factor analysis are used to determine if the observed variables are under an influencing set or construct in a succinct and interpretable form (Hair et al. 2005). If the EFA is successful, the factor is accepted as actually illustrating the data through a set of concept reduced from the original variables (Hair et al. 2005).

This thesis used principal component analysis (a component of extraction method under exploratory factor analysis) with varimax rotation. According to Pallant (Pallant 2001), principal component analysis is a technique used to summarise the information contained in a number of variables into a smaller set of linear combination. There are a few justifications for conducting principal component analysis instead of other components in the extraction method: 1) to gather the variable under principal factors for comparisons and 2) to measure the strength of the relationship between each variable and its associated factor. A rotation is chosen to maximise the factor loading; a higher loading will be set higher and the moderate and small loading will be smaller. Also, varimax rotation is used to test the uniqueness of the variables and simplify the factors by maximising the variance of the loadings within factors across variables (Zeidan 2006)

The result of principal component factor analysis shows that most constructs used in the study, such as entrepreneurial orientation, market turbulence, competitive intensity, innovation success and firm performance, fall under their right dimensionality as discussed in the literature review (Refer to Appendix 2, Part A) but interaction orientation and market orientation show some discrepancy. The

actual market orientation construct consists of one dimension, but the result of principal component analysis conducted by this thesis shows that there are two dimensions instead of one. On the other hand, the actual interaction orientation construct consists of four dimensions, but the result of principal component analysis shows that there are just two dimensions instead of four. Due to these discrepancies in measuring market orientation and interaction orientation constructs, these constructs require some deliberative redefinition. This means that some changes were necessary for market orientation construct and interaction orientation construct, but all other constructs of entrepreneurial orientation, market turbulence, competitive intensity, innovation success and firm performance are as they were.

### **5.7.2 Confirmatory Factor Analysis**

Confirmatory Factor Analysis (CFA) is part of structural equation modelling (SEM) and is also known as the measurement model. CFA was examined prior to testing SEM on the structural model to assess the accuracy of the measurement properties of the conceptual model using fit indices. CFA also was employed in this thesis for the assessment of unidimensionality (Joreskog and Sorbom 1996). CFA allows the researcher to 1) discover common factors that are correlated, 2) identify observed variables that are identified by the common factors, 3) identify observed variables that are affected by an error term factor, and 4) identify pairs of error terms that are correlated. Once the scales were established following CFA, structural equation modelling (SEM) was used to test the hypothesised path model based on theoretical consideration.

### 5.7.3 Structural Equation Modelling

This thesis used structural equation modelling (SEM) to analyse the relationship between strategic orientation and firm performance. SEM can be defined as a multi-variate technique that can explain the relationship between variables in a conceptual model using multi-variate regression and factor analysis (Hair et al. 2006; Mc Donald and Ho 2002) explain that SEM involves a path analysis with latent variables used to measure the causal relationship in multi-variate data analysis. SEM also is used to estimate the interaction effects across multiple groups (Zeidan 2006).

SEM also is known by many names such as covariance structure analysis, latent variable analysis or sometimes referred to by the name of the specific software package used for the analysis, such as AMOS or LISREL. This thesis used SEM specific software AMOS 18, which is available in Statistical Package for the Social Science (SPSS). According to Hair et al. (2006, p.635), all structural equation models are distinguished by three characteristics:

- i. Estimation of multiple and interrelated dependence relationship*
- ii. An ability to represent unobserved concepts in these relationships and account for measurement error in the estimation process*
- iii. Defining a model to explain the entire set of relationships*

SEM is also argued to have several advantages compared to first generation statistical tools, such as regression, path analysis and factor analysis, due to its ability to '*explore the relationships amongst the dependent variables, allow unequal weights for indicators to be unequal or correlate and measure recursive and non-recursive relationship between constructs*' (Aryani 2009, p. 144). But

contrary to popular thought, SEM is not a measure of causality (James 1982, Steiger 1989, Peyrot 1996, Williams 2003) i.e. there is no way of establishing proof of causality. It also suggests that a causal model can never be completely validated, as a good model-data fit does not necessarily mean that the model is true, and the model can only be disconfirmed through statistical tests.

There needs to be additional indicators to assess goodness-of-fit of the model. Hair et al. (1995) suggest that SEM has no single statistical test that describes the strength of the model's goodness of fit (GFI). As a result there is no absolute agreement between scholars on how to report model-fit. Some scholars such as Jacard and Wan (1996) suggest reporting at least three indicators, while others such as Kline (1998) suggest reporting at least four model-fit indicators. This thesis follows the guidelines by Bollen and Stine (1993) and Hair et al. (1995) who suggest three categories of fit indices: absolute, incremental and parsimonious. The multiple criteria used in this study were tested in confirmatory factor analysis and SEM as suggested by previous researchers (Bryne 2001, Kline 2005b). The model-fit indicators reported in this study include: 1) chi-square ( $\chi^2$ ), 2) normed chi-square (the ratio of the  $\chi^2$  to its degree of freedom 'df'), 3) the standardised root mean-square (SRMR), 4) the Tucker-Lewis Index (TLI), 5) the comparative fit index (CFI) and the 6) Root-Mean-Square Error of Approximation (RMSEA). These indicators represent all the three categories mentioned above (Bryne 2001).

The first index, chi-square ( $\chi^2$ ) is an absolute index and considered as the most fundamental measure of overall fit (Joreskog (1969) and is only available in SEM

(Bollen 1989). According to Joreskog and Sorbom (1993), the chi-square value represents the discrepancy between unrestricted sample covariance matrix and the restricted covariance matrix. Inferring fit from just the chi-square is not advisable as it can change according to sample size (Marsh et al. 1988, Hair et al. 1995). In addition, Cheng (2001, p. 653) suggests that:

*..the non-significant chi-square statistic is the least used as a goodness-of-fit index as it is the most difficult to achieve. This is because it accounts for all possible relationships between constructs and constructs, between constructs and indicators, and between indicators and indicators. Thus, the more the construct and indicators in a model, the lower the p-value (i.e. the less non-significant) of the chi-square statistic, resulting in a poor model fit.*

The second fit indicator is the normed chi-square which refers to the ratio of the  $\chi^2$  to its degree of freedom 'df'. Normed chi-square is included in the parsimonious fit indices examining the parsimony of the proposed model by estimating the fit of the model to the degree of freedom required to achieve the fit level. According to Hair et al. (2005), normed chi-square is the most popular indicator to measure the fitting of a model, however, there is no agreement between scholars on the acceptable range of normed chi-square. For instance, Carmines and McIver (1981) suggest a range between 2 to 1 or 3 to 1 as the acceptable fit, while Wheaton et al. (1977) and Marsh and Hoceur (1985) suggest a value between 2 to 5 as a reasonable value. This thesis considers a value ranging from 1 to 3 as the acceptable fit (Carmines and McIver 1981).

The third fit indicator adopted by this study is the standardised root mean-square residual (SRMR). According to Kline (2005a), SRMR is the measure of the

mean of absolute correlation residual or the overall difference between the observed and predicted correlations. The values for SRMR normally range from 0 to 1, but the acceptable value for SRMR varies among scholars. Kline (2005a) considers a value less than 0.10 as a well-fitting model, while Hu and Bentler (1995) consider a value less than equal or less than 0.08 as the acceptable value.

The fourth and fifth indicators used by this study are Tucker-Lewis Index (TLI) by Tucker and Lewis, (1973) and Comparative Fit Index (CFI) by Bentler (1990). These are comparative fit indices and a value above 0.90 indicates well-fitting models for TLI and CFI (Bentler (1992), while values close to 0.95 indicate superior fit (Hu and Bentler (1999). According to Marsh et al. (1988), the CFI and TLI indexes are independent in relation to the sample size or the degree of freedom.

Root Mean Square Error of Approximation (RMSEA) is a measure of absolute fit index. Absolute fit index is very important as it seeks to find out *“how well would the model, with unknown, but optimally chosen parameter values fit the population covariance matrix if it were available?”* Brown and Cudeck (1993, p. 137). Steiger (1989) and Browne and Mels (1990) suggest that the value of RMSEA should be less than 0.05 to show a good fit. However, Browne and Cudeck (1993) suggest that values in the range of 0.05 to 0.08 show a fair fit, but if the value is more than 0.08, it must represent reasonable errors of approximation in the population (Joreskog and Sorbom 1996)



## **5.8 Summary**

This chapter has discussed the research design and methodology used in this research. More specifically it has outlined the research instruments and procedures used for data collection, and all the relevant procedures of data preparation and ethical consideration. The chapter has explained and rationalised the statistical techniques to be used for data analysis. The data collected from the survey questionnaires will be submitted all the statistical procedures explained here. The goal is to first ensure the validity, reliability and normality of the data and the measurement dimensions and constructs, and then examine the interrelationships between the variables proposed in the hypotheses with full-structural-model testing. This will provide quantified evidentiary results to determine the impact of strategic orientation on firm performance. The next chapter will provide a detailed explanation of the results from each stage of the data analysis and end with the findings of the data analysis in relation to the hypotheses guiding this thesis.

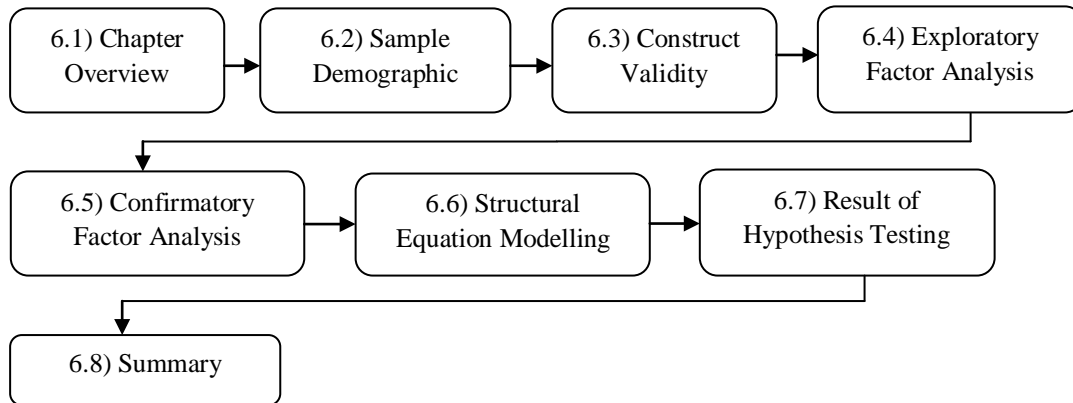
## **Chapter 6 RESULTS OF DATA ANALYSIS**

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### **6.1 Chapter Overview**

The rationalisation and justification for adopting the statistical techniques and data analysis procedures were outlined in the last chapter. This chapter presents the results from all those procedures and analyses. The results presented here are organised under five key sections: descriptive statistics of the respondents and firms, measurement dimensions, exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and structural equation modelling (SEM). The descriptive statistics of the respondents provides an overview of the demographic analysis of the sample used in this study. The discussion of measurement dimensions shows the discriminant validity of the different constructs used in the conceptual framework. Then, the chapter will proceed to the more complex statistical procedures. First, it will discuss the results of the EFA analysis validating the internal coherence of each construct. Then, it will provide results of the CFA analysis on the constructs. After that, the results of the SEM analysis of the data and testing of the full structural model will be discussed. This chapter concludes with an exposition of the results and how it relates to each hypothesis. Figure 6.1 shows the order in which the results of the chapter are organised.

**Figure 6.1 Chapter Organisation**



## 6.2 Sample Demographics

The survey questionnaire was sent to 1500 firms randomly selected from 5423 services firms listed in the 2010 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. Table 6.1 below gives an overview of the demographic background of the respondents and their firms.

**Table 6.1 Demographic Background of Respondents and Firms**

Respondents		Frequency	Percentage
Age	<20	2	0.6
	20-29	45	13.1
	30-39	149	43.3
	40-49	116	33.7
	50-59	29	8.4
	60 and above	3	0.9
Gender	Male	245	71.2
	Female	99	28.8
Education Level	Primary	12	3.5
	Secondary	197	57.3
	Degree	88	25.6
	Master	23	6.7

	PhD	1	0.3
	Others (Certificate, Diploma)	23	6.7
Race	Malay	151	43.9
	Chinese	169	49.1
	Indian	19	5.5
	Others	5	1.5
Designation	Owner	274	79.7
	CEO	12	3.5
	Owner and CEO	20	5.8
	Others	38	11
Designation (Others)	Supervisor	5	1.5
	Manager	23	6.7
	Senior Manager	8	2.3
	Director	1	0.3
	Chairman	1	0.3
Formal Training	Yes	198	57.6
	No	146	42.4
Types of Training	Management	42	12.2
	Technical	50	14.5
	Both	103	29.9
	Nil (not disclosed)	149	43.3
<b>Firms</b>		<b>Frequency</b>	<b>Percentage</b>
Location	Kedah	21	6.1
	Kelantan	14	4.1
	Penang	8	2.3
	Terengganu	7	2.0
	Sarawak	74	21.5
	Pahang	25	7.3
	Melaka	14	4.1
	Negeri Sembilan	32	9.3
	Johor	70	20.3
	Kuala Lumpur	26	7.6
	Selangor	53	15.4
Employees	1-4	79	23.0
	5-19	216	62.8
	20-35	35	10.2
	36-50	14	4.1
Years of Operation	<1	7	2.0
	1-5	127	36.9
	6-10	99	28.8
	11-15	62	18.0
	16-20	30	8.7
	Over 20	17	4.9
	*2 firms never disclose their years of operations		

Involvement on 3 <sup>rd</sup> Party Organisation	Yes	119	34.6
	No	225	65.4
Types of Organisation	SME Corp. Malaysia	40	11.6
	M.A.R.A	25	7.3
	Others	53	15.4
	N/A	226	65.7

Source: Summarise SPSS Output

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, Table 6.1 has reported that 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. However, other factors such as strategic orientation are suggested to play an important role in firm performance”.

The demographic profile of the SMEs was organised into different themes, such as location, number of employees, years of operation, number of employees and membership in any business organisation. Firstly, this study aims to cover the broadest possible geographical area in terms of the locations of SMEs in Malaysia. Malaysia is divided into 16 regions (states and federal territory) but the respondents for this thesis are represented by only 11 regions and Perak, Sabah, Putrajaya, Labuan and Perlis are not represented. Official data shows that these states have a low concentration of SMEs (SME Info Portal 2010) and they also failed to yield any participants in the random sampling stage of the research. Sarawak, Johor and Selangor states provided the highest frequency of response and those states are also reputed to have high concentration of commercial business and SMEs compared to other states in Malaysia. In light of these facts, the sample chosen for this study distribution of respondents can be considered to be representative of Malaysian SMEs in general. Since majority of SMEs expressed their concerns about the possibility of some third party making unwarranted inferences from their responses, the researcher assured them of anonymity and does not provide the exact names of SMEs participating in this research. Also, in accordance with ethics approval from Victoria University, all data was treated as confidential and will be kept in a secure location for the required period.

### 6.3 Measurement Dimensions

This section details the analyses of the entire measurement constructs. Altogether, seven constructs (market orientation, entrepreneurial orientation, interaction orientation, market turbulence, competitive intensity, innovation success and firm performance) were identified as essential to the conceptual framework. This study analysed each of these constructs subject to psychometric dimensions including Cronbach’s alpha and discriminant validity. The purpose was to ensure that the measures of each of the construct are significant, reliable and valid.

#### 6.3.1 Measurement Properties and Reliability

The measurement properties and reliability of the constructs is presented in Table 6.2. 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 and Steed 2008). The reliability or the inter-item consistency is within the acceptable limits specified by Cronbach (1951).

**Table 6.2 Summary of the Descriptive Statistics of the Constructs**

	Mean	Var	SD	1	2	3	4	5	6	7
Market Orientation (MO)	5.71	0.59	0.77	(0.926)						
Interaction Orientation (IO)	5.15	0.48	0.70	0.750**	(0.853)					
Entrepreneurial Orientation (EO)	4.85	1.35	1.16	0.550**	0.647**	(0.922)				

Innovation Success	4.70	1.07	1.03	0.501**	0.578**	0.791**	(0.946)			
Market Turbulence	5.26	1.21	1.10	0.587**	0.618**	0.758**	0.672**	(0.912)		
Competitive Intensity	5.07	1.21	1.10	0.431**	0.512**	0.700**	0.601**	0.776**	(0.87)	
Firm Performance	4.94	0.73	0.85	0.420**	0.344**	0.405**	0.408**	0.400**	0.436**	(0.911)

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

### 6.3.2 Discriminant Validity

This thesis used Pearson's correlation to measure the discriminant validity as well as magnitude and direction of the correlational relationship (Hair et al. 2006). According to Ferrer (2010), a correlation value of 0.5 suggests a distinct concept, while a correlation of 0.8 and above may indicate a lack of conceptual distinction. The result as presented in Table 6.2 above shows that the constructs are all under 0.8, thus suggesting discriminant validity between the constructs. The significance of the relationship between constructs is consistent with the proposed conceptual framework as well as the direction of the relationship.

Overall, the measures have been demonstrated as valid, reliable and related. The next step is to perform the exploratory factor analysis on the constructs.

### 6.4 Exploratory Factor Analyses

The EFA using principal component analysis was conducted to ensure that all of the constructs used in this study are valid and reliable before proceeding to the CFA and the subsequent SEM analysis. To conduct the EFA, SPSS 20.0 for Windows was used as the software. According to Coakes and Steed (1999), factor



analysis should consider the following indicators to determine whether the items are tapping into the same construct:

1) Correlation matrix: Inputs for determining the significance of factor analysis are the correlation matrix, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy, Bartlett's Test of Sphericity and Anti-Images Matrix-Measure of Sampling Adequacy.

The expected ranges are as follows:

1.1) Correlation Matrix	0.3
1.2) Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.6
1.3) Bartlett's Test of Sphericity	Large and significant
1.4) Anti-Image Matrix-Measure of Sampling Adequacy	Small for AIM and 0.5 for MSA

2) Factor extraction: Inputs for determining factor extraction are communalities, total variance explained-Eigenvalues, scree plot, and component matrix.

2.1) Communalities	> 0.5
2.2) Total variance explained-Eigenvalues	> 1
2.3) Scree plot	Select the factors lie above the value of Eigenvalue 1
2.4) Component matrix	>0.3 or greater

3) Factor rotation: The process of adjusting the factor axes in order to get a simpler and more significant factor solution.

The EFA results presented in Table 6.3 below show the summary of the factor extraction conducted on all the constructs (market orientation, entrepreneurial orientation, interaction orientation, market turbulence, competitive intensity, innovation success and firm performance). The detailed EFA results including:

the correlation matrix, factor extraction and factor rotation are presented in Appendix 2, Part A.

**Table 6.3 Summary of Results for Exploratory Factor Analysis**

	Communalities.	Total Variance Explained- Eigenvalues	Scree Plotting	Rotation Component Matrix
MO	>0.5	1 factor had Eigenvalue above 1, explained 70.140 % of the variance.	Factor 1, Eigenvalue of 7.014 explained 70.140% of the variance.	6 pure indicators with loading above 0.3 in one factor and 4 pure indicators with above 0.3 in other factor
EO	>0.5	1 factor had Eigenvalue above 1, explained 72.016% of the variance	Factor 1, Eigenvalue of 4.321, explained 72.016% of the variance	Only one component extracted, no rotation
IO	>0.5	2 factors had Eigenvalue above 1, explained 65.754% of the variance	Factor 1, Eigenvalue of 6.522, explained 42.090% and Factor 2, Eigenvalue of 1.368, explained by 23.664% of the variance	8 pure indicators with loading above 0.3 in one factor and 3 pure indicators with above 0.3 in other factor. *Item QC12 is excluded in this thesis as it provides a negative value. Refer to Table 5.7 for reference
MT	>0.5	1 factor had Eigenvalue above 1, explained 69.478% of the variance	Factor 1, Eigenvalue of 4.169, explained 69.478% of the variance	Only one component extracted, no rotation
CI	>0.5	1 factor had Eigenvalue above 1, explained 65.441% of the variance	Factor 1, Eigenvalue of 3.272, explained 65.441% of the variance	Only one component extracted, no rotation
FP	>0.5	1 factor had Eigenvalue above 1, explained 84.849% of the variance	Factor 1, Eigenvalue of 2.545, explained 84.849% of the variance	Only one component extracted, no rotation
IS	>0.5	1 factor had Eigenvalue above 1, explained 86.152% of the variance	Factor 1, Eigenvalue of 3.446, explained 86.152% of the variance	Only one component extracted, no rotation

MO: Market Orientation  
 CI: Competitive Intensity  
 IS: Innovation Success

MT: Market Turbulence  
 IO: Interaction Orientation  
 EO: Entrepreneurial Orientation

FP: Firm Performance

The results demonstrate that all constructs except for interaction orientation construct adhere to the criterion of accurate dimensionality as stated in the literature review. It was found that interaction orientation did not have the expected number of factors as shown in previous research by Ramani and Kumar (2008). INTOR should have found four factors in the EFA, however, the results only identified two factors. Therefore, some more work needs to be done to examine and reformulate the INTOR scale and this is discussed in the next section.

## 6.5 Reformulating Interaction Orientation Scale (INTOR)

The INTOR construct had to be reviewed due to discrepancy in the number of factors in the EFA as explained in the last section. INTOR is new concept that has only been tested in one study before this, and the lack of substantial testing of the scale may mean that the scale to be modified to suit different research contexts. The original constructs of INTOR consist of four factors—customer concept, interaction response capacity, customer empowerment and customer value management. However, the results of EFA show that customer concept, customer empowerment and customer value management can actually be subsumed under one factor. Hoekstra et al. (1999b) argue that customer concept is determined by the individual customer as the starting point and this is similar to the definition of customer value management offered by Ramani and Kumar (2008, p. 29) who define it *‘as the extent to which the firm can define and dynamically measure individual customer value as its guiding metric for marketing resource allocation decisions’*. Similarly, customer empowerment can actually be viewed as a part of the customer concept because it involves customers directly with the marketing and strategy-making process of the firm. As a result, the other two factors of customer empowerment and customer value management were incorporated under customer concept. Lastly, interaction response capacity emerged as the only other distinct factor. Items under this factor are used to capture the firm’s ability to respond to heterogeneous customers with different strategies (Ramani and Kumar 2008). Therefore, the EFA delivered two factors under interaction orientation—

factor 1 as customer concept (CC) and factor 2 as interaction response capacity (IRC).

Principal component factoring was conducted to examine the factor structure of INTOR and all its 12 items. Table 6.4 shows the principal component analysis followed by varimax rotation utilised for the new INTOR scale.

**Table 6.4 Principal Component Analysis with Varimax Rotation**

Items	Rotated Component Matrix	
	1	2
QC1: This firm believes that each customer cannot be satisfied with the same set of products and services	<b>.703</b>	.145
QC2: This firm consciously seeks to identify and acquire new customers individually	<b>.700</b>	.416
QC3: This firm believes that customers reactions to marketing action should be observed at the individual level	<b>.700</b>	.384
<i>QC4: This firm analyses past customer transactions at the individual customer level to predict future transaction from that customer</i>	.510	<b>.682</b>
<i>QC5: This firm has systems in place that record customer's transaction</i>	.235	<b>.887</b>
<i>QC6: In this firm, all staff who deal with customers have access to information about the transaction of individual customers at all time</i>	.165	<b>.883</b>
QC7: This firm encourages customers to give feedback about its products and services	<b>.663</b>	.362
QC8: This firm encourages customers to share opinions of its product or services with other customers	<b>.769</b>	.138
QC9: This firm encourages to share opinions of its product or services with other customers	<b>.813</b>	.197
QC10: This firm has an excellent idea of what each individual customer has been contributing to its profits	<b>.819</b>	.256
QC11: This firm predicts what each individual customer will contribute to its profit in the future	<b>.803</b>	.310
QC12: This firm computes the revenue generated as a result of every marketing		

action directed at an individual customer	<b>-.764</b>	-.252
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\*The figures in bold indicate the items which weighed more heavily.

It was determined that QC12 be removed as it indicates a negative impact on firm performance. Item QC12, *this firm computes the revenue generated as a result of every marketing action directed at an individual customer* is suggested to be too specific and provides a negative perception to the participants. The respondents might agree with the statement but when it specifies that the *revenue generated is due to a specific marketing action toward an individual customer*, it might appear exaggerated. It is likely that the revenue generated is not merely the result of direct marketing but is also influenced by other factors such as price of products or services.

A CFA was further conducted to examine the construct validity of the new conceptual scale of INTOR construct developed so far.

1) First, the modification indices (MI) were examined as the MI or the degree of chi-square is expected to decrease if a particular parameter is set free and the model is re-estimated. As the result, it is necessary to delete or correlate the items with the largest MI, followed by the second largest and so on, in order to get a fit chi-square.

2) However, before withdrawing the item with largest MI, this thesis checked the standardised residual: large positive residual indicates the degree of model underestimation of covariance between two variables while large negative residual indicates the degree of model overestimation between two variables.

3) Also, the expected change associated with MI is examined to exclude the parameter with the wrong sign. These indicators are used in this thesis in locating the misspecification and to suggest how the model can have a better fit. In case of identification of a problematic item, Holmes-Smith (2001) suggests deleting items that are not contributing to the model. Deleting the items will also increase model parsimony (Holmes-Smith 2001).

The summary of model re-specification for the INTOR construct is presented in Table 6.5. The model is assessed according to the criteria addressing model re-specification discussed above. After five iterations, the model was found to fit well ( $\chi^2/df = 1.251$ , RMSEA = 0.027, SRMR = 0.0161, TLI = 0.981, CFI = 0.991). For each of the iteration, following the specifications by Holmes-Smith (2001), six items from the INTOR were removed in the five iterations of the CFA. The items deleted were—three items from customer concept (QC1, QC3, QC8), and all three items associated with interaction response capacity (QC4, QC5, QC6).

**Table 6.5 Model of INTOR Construct Re-specification Summary**

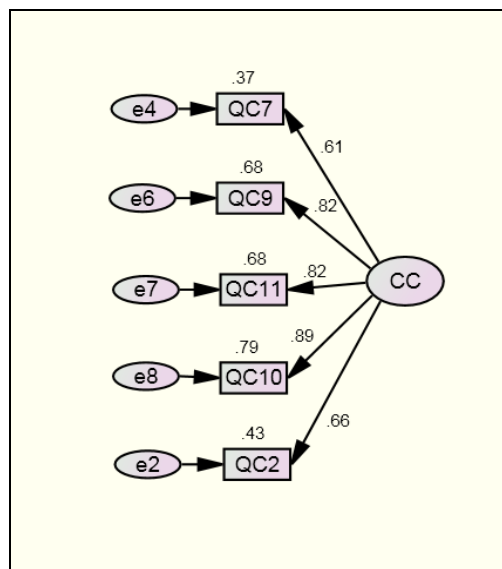
Overall Fit Indices	Initial Model	Iteration				
		1	2	3	4	5
$\chi^2$	229.963	195.028	154.187	94.229	35.418	6.255
$df$	43	34	28	19	9	5
$\chi^2/df$	5.348	5.736	5.930	4.959	3.935	1.251
RMSEA	0.113	0.118	0.120	0.107	0.0930	0.027
SRMR	0.1131	0.1251	0.0967	0.0653	0.03999	0.0161
TLI	0.327	0.354	0.402	0.535	0.730	0.981
CFI	0.474	0.512	0.568	0.684	0.838	0.991
AIC	275.963	237.028	192.187	128.229	59.418	26.255
Iteration 1	QC1 has a very low square multiple correlation (0.448) and standardised regression weight (0.576). Also, QC1 share a large standardised residual covariance with QC2 (2.915), QC4 (3.434) QC5 (-2.033) and QC6 (-2.957). QC1 was dropped.					
Iteration 2	QC3 has a large standardised residual covariance with QC7 (3.471), QC2 (3.241), QC3 (5.225). QC3 was dropped.					
Iteration 3	QC6 share a large standardised residual covariance with QC11 (-2.924), QC8 (-4.492) and QC5 (2.922). QC6 was dropped.					
Iteration 4	QC5 has a very low square multiple correlation (0.486) and also standardised regression weight (0.697). Also, QC5 has a high standardised residual covariance with QC8 (-2.024). The researcher also has decided to delete QC4 since QC4 is the only items in customer satisfaction management (CSM) if QC5 is dropped. QC4 and QC5 were dropped.					
Iteration 5	QC8 share a high modification indices with QC7 (10.345), QC9 (11.917) and QC10 (8.902). QC8 was dropped.					

Up to this point, the INTOR construct has been represented by customer concept (CC), however, only item QC2 (*this firm consciously seeks to identify and acquire new customers individually*) actually belongs to customer concept construct while other items belong to other constructs that were earlier subsumed under customer concept. For example, QC7: *this firm encourages customers to give feedback about its product and services*, QC9: *this firm encourages customers to participate interactively in designing product and services*) belong to customer empowerment and QC10: *this firm has an excellent idea of what each individual customers has been contributing to its profit*, QC11: *this firm predicts what each individual customers will contribute to its profit in the future* belong to customer value management. As the scale is re-appropriating items that belonged to customer empowerment and customer value management which were earlier delinked and subsumed under customer concept, it was decided that it would be more appropriate to re-instate them as dimensions into INTOR. Therefore, the original construct of interaction orientation encompassing all three dimensions of customer as proposed by Ramani and Kumar (2008) was reinstated. However, as the result of preliminary CFA shows that the interaction response capacity (IRC) items do not fit well with items under the customer concept, IRC was deleted. Therefore, this thesis conceives of INTOR construct as a single dimension construct derived from customer concept, customer empowerment and customer value management dimensions. It must be noted here that all of these dimensions are almost synonymous with the customer concept as it has been conceptualised in existing literature by other scholars like Hoekstra et al. Figure 6.2 shows how the



INTOR construct of this study captures most CC components. However, this thesis chooses to use the term of interaction orientation (IO) instead of customer concept (CC) to designate the construct as it is more related to customer-directed strategic orientation rather than the static definitional customer concept. The revised Cronbach alpha for the revised INTOR construct (0.861) indicates its reliability.

**Figure 6.2 Result of Preliminary CFA Analysis on INTOR Construct**



A Pearson's correlation matrix was run on the chosen items in the modified INTOR to determine if the items have discriminant validity ensuring that each item measures a distinct and unique dimension of interaction orientation. Table 6.6 given below shows the correlation matrix of INTOR construct. All correlations were significant proving that there is discriminant validity in the modified INTOR measure.

**Table 6.6 Pearson's Correlation Matrix (INTOR)**

	QC2	QC7	QC9	QC10	QC10
QC2	1				
QC7	0.527**	1			
QC9	0.610**	0.546**	1		
QC10	0.631**	0.559**	0.777**	1	
QC11	0.623**	0.560**	0.716**	0.780**	1

\*\*Correlation is significant at 0.01 levels (2-tailed)

## **6.6 Confirmatory Factor Analysis**

Following the preliminary analysis of the INTOR construct, a CFA was used to test all the constructs against each other in order to assess the accuracy of the measurement properties of the conceptual model using fit indices. The CFA analysis for the whole model is presented in Table 6.7. The initial model with refined measures failed to provide a good fit ( $\chi^2/df = 2.820$ , RMSEA = 0.087, SRMR = 0.0585, TLI = 0.846, CFI = 0.859). Table 6.7 shows the CFA model re-specification summary, which includes the justification associated with the deleted items before reaching the best model-fit of CFA. It also provides the iteration process and justification for model specification.

The criteria used to increase model fit were: 1) chi-square ( $\chi^2$ ), 2) normed chi-square (the ratio of the  $\chi^2$  to its degree of freedom 'df'), 3) the standardised root mean-square (SRMR), 4) the Tucker-Lewis Index (TLI), 5) the comparative fit index (CFI) and the 6) Root-Mean-Square Error of Approximation (RMSEA).

**Table 6.7 CFA Model Re-specification Summary**

Overall Fit Indices	Initial Model	Iteration						
		1	2	3	4	5	6	7
$\chi^2$	1920.656	1721.327	1512.883	1410.028	1296.566	1206.752	1077.241	946.809
<i>df</i>	681	644	608	573	439	506	474	443
$\chi^2/df$	2.820	2.673	2.488	2.461	2.406	2.385	2.273	2.137
RMSEA	0.087	0.084	0.079	0.078	0.077	0.076	0.073	0.069
SRMR	0.0901	0.0889	0.0856	0.0813	0.0689	0.0618	0.0587	0.0549
TLI	0.846	0.862	0.880	0.886	0.893	0.899	0.910	0.921
CFI	0.859	0.873	0.890	0.896	0.903	0.909	0.919	0.929
AIC	2118.656	1915.327	1702.883	1596.028	1478.566	1384.752	1252.241	1116.809
Iteration 1	QD1 and QD6 shared high standardised residual covariance with QG11 (2.038), QG10 (2.001), QG2 (3.345), QG1 (4.048), QD3 (2.052) and QD1 (5.483). QD1 also has a low standardised loading which is 0.401, QD1 was dropped.							
Iteration 2	QD2 share a large standardised residual covariance with QG11 (2.645), QG10 (3.311), QG2 (4.992) and QG1 (5.430). Besides, QD2 has high modification indices with QG1 and also low standardised loading which is 0.350. QD2 was dropped.							
Iteration 3	QG11 share a large residual covariance with QG2 (3.174), QC7 (2.119) and QE1 (2.120). QG11 also has a low standardised loading which is 0.366. QG11 was dropped.							
Iteration 4	QD3 share a large residual covariance with QC7 (2.746), QE4 (2.572), QE3 (2.221) and QC11 (2.750). QD3 was dropped.							
Iteration 5	QG10 has a low standardised loading which is 0.394 and share a large standardised residual covariance with QB6 (3.371), QB9 (3.056), QB4 (3.336), QG4 (3.248). QG11 was dropped.							
Iteration 6	QG1 has a large residual covariance with QI1 (2.032), Q13 (2.425), QG8 (2.305) and QG9 (2.133). Besides, QG2 also has large modification indices with QG2. QG1 was dropped.							
Iteration 7	QB7 share a large residual covariance with QB10 (2.068) and QB8 (2.358). Besides, QB7 share large modification indices with QB8. QB7 was dropped.							

In total, there were seven iterations in the CFA. After the final adjustment, the measurement model for this thesis retained 32 items with acceptable model-fit indices as presented in iteration 7 ( $\chi^2/df = 2.137$ , RMSEA = 0.069, SRMR = 0.0549, TLI = 0.921, CFI = 0.929) in Table 6.7. The AIC had decreased across the interactions providing support for iteration 7 as the most parsimonious measure. The squared multiple correlation for the 32 items all exceed 0.5 except for QG2 (0.481), QC7 (0.464) and QB5 (0.481). However, the standardised estimates for all the 32 items exceed 0.5 and critical ratio (CR) for all of them exceeds 1.96 which indicates significance (Hair et al. 2006). Previous studies have argued that one should not only aim to get a perfect fit but also consider the complexity of the model as well (Wee 2010). Holmes-Smith (2001) also argues that a fit that is too good in the CFA may indicate that the constructs are too similar. The full results of the best-fit CFA model and the standardised loading after the model re-specification are provided in Appendix 4. The key indices of TLI and CFI achieved a cut-off of above 0.9 (Bentler and Bonnet 1980),  $\chi^2/df$  is less than 3 (Bagozzi and Yi 1998), RMSEA is less than 0.08 (Brown and Cudeck 1993), therefore, no more re-specification of the measurement model was necessary.

## **6.7 Structural Equation Modelling (SEM)**

In the last section, it was shown that CFA analysis on the proposed strategic orientation model and the key indicators demonstrated that the model fits the data well. Now it is time to proceed to the results derived from the SEM analysis. SEM analysis advances in a two-step analysis of the measurement model and then the

structural model. The measurement model (analysed through CFA), was presented in the previous section. The measurement model shows the relationship between observed and unobserved variables and also identifies the pattern of loadings on a particular factor. The structural model comes after the measurement model where the covariance arrows are replaced with one-way arrows indicating direct relationships among variables (Anderson and Gerbing 1988, Holmes-Smith 2001, Joreskog and Sorbom 2006). This section will discuss results of the SEM from the assessment of the structural models.

### 6.7.1 Assessment of the Structural Model

SEM aims to simultaneously test the regression pathways while assessing the model for goodness-of-fit, using the indices specified in the last chapter. In this section, the results of the testing of this final measurement model will be presented. The SEM was run and the fit indices are presented in Table 6.8 (the full AMOS model is attached in Appendix 2, Part C, with the associated results).

**Table 6.8 Structural Model Fit Indices**

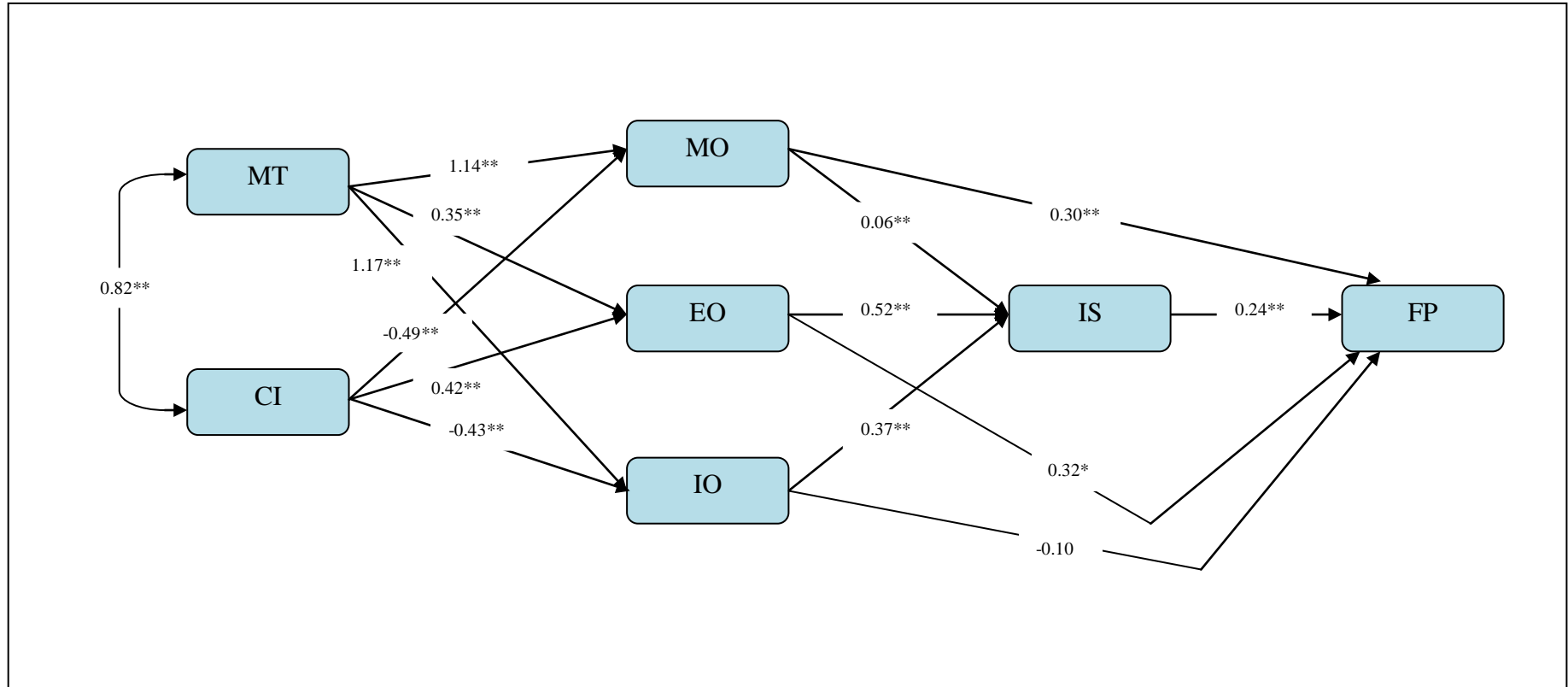
Model Fit Indices	Value
$\chi^2$	1030.733
$\chi^2/df$	2.291
SRMR	0.716
RMSEA	0.074
TLI	0.910
CFI	0.919

No model re-specification for this structural model was necessary, as all indices show the required level of significance. The ratio of  $\chi^2/df$  is within the acceptable range of 1-3 ( $\chi^2/df = 2.291$ ) (Carmines and McIver 1981). The value of SRMR (0.716) and RMSEA (0.074) is considered satisfactory. Brown and Cudeck (1993)

and Hu and Bentler (1999) suggest a value  $\leq 0.08$  for RMSEA and SRMR for the absolute fit measures. The incremental fit indices, Tucker-Lewis index (TLI) and comparative fit index (CFI), are above acceptable values of  $\geq 0.90$  (Bentler and Bonnet 1980, Bagozzi and Yi 1998). AFI was not reported as only one structural model was required. It can be concluded that the overall fit indices are good and the model fits the data for SMEs in Malaysia collected in this research.

Next, Figure 6.3 presents the final structural model after all these statistical procedures. The figure shows the relationships as proposed in the conceptual framework. The figure provides the standardised beta ( $\beta$ ) coefficient for each regression pathway indicating the impact of the relationships (Holmes-Smith 2001) and the significance of that relationship. The co-variance between market turbulence (MT) and competitive intensity (CI) is also presented.

Figure 6.3 Simplified Structural Model



\* $p > 0.05$ , \*\* $p = 0.01$

### 6.7.2 Result of Test of Goodness-of-fit of the Model

In assessing the structural paths *t*-value was applied together with the significance of the regression (beta coefficient). For the path to be considered statistically significant, *t*-value (C.R.) needs to be greater than +/- 1.96 at 5% significance level (or greater than +/- 1.645 at a 10% significance level or greater than +/- 2.575 at a 1% significance level). Table 6.9 below shows the parameter estimates, standard errors, critical ratios and the significance values for all the paths within the full model.

**Table 6.9 Parameter Estimates, Critical Ratios and Significance Value**

			Estimate	S.E.	C.R. ( <i>t</i> -value)	P
IO	←	MT	1.022	.144	7.114	***
EO	←	MT	.454	.131	3.456	***
MO	←	MT	.882	.122	7.240	***
IO	←	CI	-.323	.105	-3.073	.002
EO	←	CI	.428	.104	4.114	***
MO	←	CI	-.295	.083	-3.571	***
IS	←	MO	.074	.075	.976	.329
IS	←	EO	.356	.038	9.268	***
IS	←	IO	.338	.066	5.132	***
FP	←	IS	.227	.089	2.542	.011
FP	←	EO	.203	.052	3.894	***
FP	←	IO	-.087	.078	-1.108	.268
FP	←	MO	.323	.086	3.748	***

NOTE: \*\*\*=  $p < 0.000$

All paths were found to be significant (+/- 1.96 at 5% significant level), with the exception of market orientation ← innovation success and interaction orientation ← firm performance (highlighted in Table 6.9 above). The significant results provide evidence confirming the conceptual model proposed for this study. It was anticipated that all relationships within the model would be positive; however some negative pathways were also found. Competitive intensity was found to negatively impact on market orientation ( $\beta = -3.073$ ) and interaction orientation ( $\beta = -3.571$ ). Previous research had indicated that this path should be positive (Slater and Narver 1994); the meaning and implications of this converse result will be discussed in greater detail in the next



chapter. It must also be noted here that the relationship between market orientation and innovation success is not significant and this will be part of the discussion in the next chapter. The relationship between interaction orientation and firm performance is also not significant. The originators of the concept of interaction orientation, Ramani and Kumar (2008) examined and validated interaction orientation as a positive variable against customer-based relational performance and customer based profit performance but not directly on firm performance. As this study showed insignificant relationship between interaction orientation and firm performance, the implications of this finding and relevance of interaction orientation as a construct of strategic orientation will be discussed in the next chapter

Next, the squared multiple correlations ( $R^2$ ) are reported in the Table 6.10. The value of  $R^2$  indicates the variance accounted for by the variables in the model up until a specific variable. Of significance, the value of  $R^2$  for firm performance was 0.439, indicating that 43.9% of the variance in firm performance was accounted for by the variables tested within this study. In addition, the variance accounted for innovation success was 63.5% suggesting a strong association between the strategic orientation variables and innovation success. This result will be discussed within the context of the wider literature and Malaysian SMEs in the discussion chapter.

**Table 6.10 Squared Multiple Correlations ( $R^2$ )**

Construct	Estimate
Market Orientation	0.625
Interaction Orientation	0.559
Entrepreneurial Orientation	0.547
Innovation Success	0.635
Firm Performance	0.439

## **6.8 Results of Hypotheses Testing**

Since the measurement and structural part of structural equation modelling have been analysed, we will now move on to the results from the statistical analyses of the hypotheses. Altogether, there are three major hypotheses with 12 sub-hypotheses, covering the direct effect of strategic orientation on firm performance, the direct effect of the external environmental variables on strategic orientation components and the mediation effect of innovation success on the relation between strategic orientation and firm performance.

### **6.8.1 Hypothesis 1 (Direct Effect of Strategic Orientation)**

There are three hypotheses relating to the direct effect between the strategic orientation and firm performance. Results for each component of strategic orientation, viz. market orientation, entrepreneurial orientation and interaction orientation, are considered in the following sections.

#### ***Entrepreneurial Orientation and Firm Performance***

It was hypothesised that there would be a positive and significant relationship between entrepreneurial orientation and firm performance. This was supported in the current research ( $\beta$ ,  $t$ -value and  $p$ -value). With a  $t$ -value of 3.894, the present study provides evidence that the direct relationship between entrepreneurial orientation and firm performance is significant, thus supporting the hypothesis as well as the extant literature reporting the positive effect of entrepreneurial orientation on firm performance.

#### ***Market Orientation and Firm Performance***

It was hypothesised that 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 hypothesis of this study and the extant literature on the positive effect of market orientation on firm performance.

### ***Interaction Orientation and Firm Performance***

It was hypothesised that there would be a positive and significant relationship between interaction orientation and firm performance. Ramani and Kumar (2009) argue that interaction orientation has a direct effect on customer-based profit performance and customer-based relational performance. This study, however, examined the relationship between interaction orientation and firm performance. The present study showed a *t*-value of -1.108 implying that the relationship between interaction orientation and firm performance is not significant. This finding will be explored with relation to the available literature, the context and the reformation of the INTOR measure.

Table 6.11 summarises the results for Hypothesis 1 relating to the direct effect of strategic orientation components on firm performance.

**Table 6.11 Summary of Hypotheses Testing for H1**

Hypotheses	<i>t</i> -value	Supported
H1a: Entrepreneurial orientation will have a direct and positive effect on firm performance.	3.894	Yes
H1b: Market orientation will have a direct and positive effect on firm performance.	3.748	Yes
H1c: Interaction orientation will have a direct and positive effect on firm performance	-1.108	No

### **6.8.2 Hypothesis 2 (Direct Effect of External Environment)**

This thesis hypothesised that there is a direct effect of factors of external environment (market turbulence and competitive intensity) on strategic orientation. Apart from validating the hypotheses of the study, this finding also provides a new perspective on the construct of market turbulence and competitive intensity which have only been tested as a moderating and not a control variable of strategic orientation. The results of the analysis of market turbulence and competitive intensity on all three components of strategic orientation (market orientation, entrepreneurial orientation and interaction orientation) are discussed below.

#### ***Market Turbulence and Strategic Orientation***

Market turbulence was found to be a significant predictor for all three strategic orientations. The analysis reported *t*-value of 7.240 for market orientation), 3.456 for entrepreneurial orientation and 7.114 for interaction orientation, indicating that the hypotheses 2a, 2b and 2c are all valid.

#### ***Competitive Intensity and Strategic Orientation***

It was hypothesised that competitive intensity will have a direct positive effect on strategic orientation. However, the results of the analysis show that competitive intensity only has a direct positive effect on the entrepreneurial orientation construct (*t*-value = 4.114) and not on market orientation (*t*-value = -3.571) and interaction orientation (*t*-value = -3.073). This means that while the presence of competitive intensity leads to higher entrepreneurial orientation, it may lower the level of market orientation or interaction orientation adopted by a firm.

Table 6.12 shows the summary of results for Hypothesis 2 relating to the direct effect of external environment on the strategic orientation components.

**Table 6.12 Summary of Hypothesis Testing for H2**

Hypotheses	<i>t</i> -value	Supported
H2a: Market turbulence will have a direct and positive effect on market orientation construct.	7.240	Yes
H2b: Market turbulence will have a direct and positive impact on entrepreneurial orientation construct.	3.456	Yes
H2c: Market turbulence will have a direct and positive impact on interaction orientation construct.	7.114	Yes
H2d: Competitive intensity will have a direct and positive impact on market orientation construct.	-3.571	No
H2e: Competitive intensity will have a direct and positive impact on entrepreneurial orientation construct.	4.114	Yes
H2f: Competitive intensity will have a direct and positive impact on interaction orientation construct.	-3.073	No

### **6.8.3 Hypothesis 3 (Mediating effect of innovation success)**

Hypothesis 3 was designed to examine the mediation effect of innovation success on the relationship between strategic orientation and firm performance. This thesis used standardised regression weight derived from AMOS to examine the mediation effect of innovation success. Hair et al. (2006) suggest that in situations where the relationships are not clear, a series of steps should be taken to evaluate the mediation using structural equation modelling (AMOS) or any other general linear model (GLM) approach including multiple regression analysis. This method also is suggested as simple, efficient, informative and presentable (Awang 2012). Since the mediation effect of

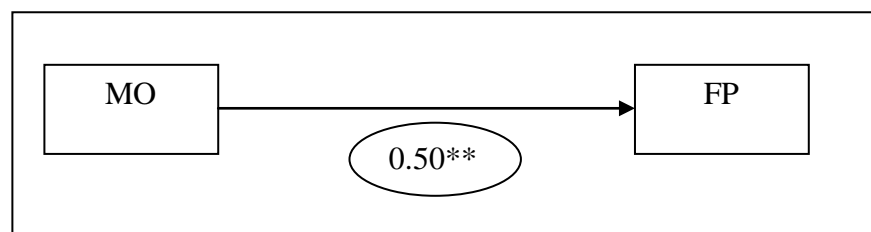
innovation success is quite complex involving three variables, the procedure undertaken to measure it will be explained in detail.

- 1) The direct effect of strategic orientation components and firm performance was analysed using AMOS and the output was recorded
- 2) The mediation effect of innovation success was included in the previous relationship and the output was recorded
- 3) The direct effect and indirect effect was calculated using a formula.
- 4) The mediation effect (partial, complete or no mediation) was determined by comparing the degree of direct effect, before and after the intervention of mediator construct.

#### **Mediation Effect: Market Orientation and Firm Performance**

It was hypothesised that there would be a mediation effect of innovation success between market orientation and firm performance. Prior to determining the mediation effect of innovation success, this thesis will analyse the direct effect of market orientation and firm performance. Table 6.13 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).

**Figure 6.4 Modelling the Direct Effect of Market Orientation on Firm Perform**



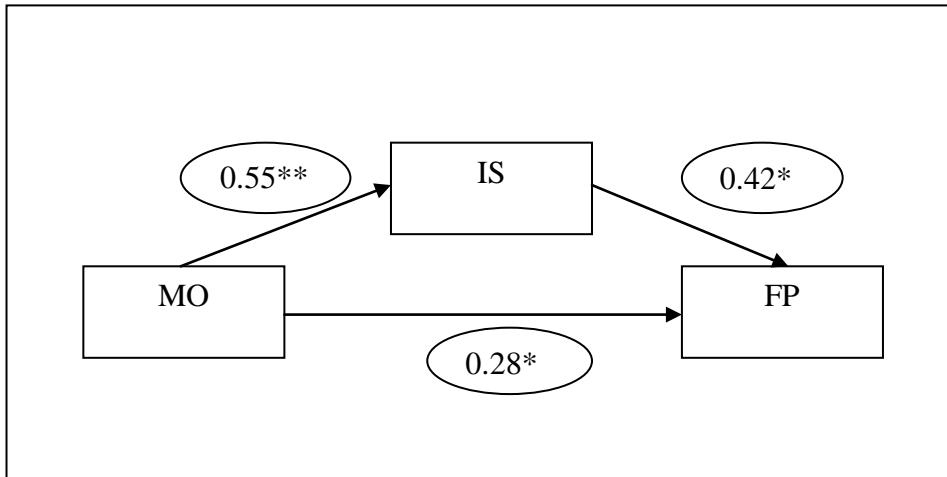
**Table 6.13 Output of Direct Effect**

**(Market Orientation → Firm Performance)**

	Unstandardised Estimates	Standardised Estimates	S.E.	C.R.	P	Label
MO ← FP	0.547	0.50	0.075	7.294	***	Significant

Next, the mediator construct is included in the model as shown in Figure 6.5. Table 6.14 shows the output of beta coefficient after the mediating construct of innovation success entered in the model.

**Figure 6.5 Modelling the Mediation Effect of Innovation Success on Market Orientation and Firm Performance**



**Table 6.14 Output of Innovation Success as the Mediation Effect**

**(Market Orientation → Firm Performance)**

	Unstandardised Estimates	Standardised Estimates	S.E.	C.R.	P	Label
IS ← MO	0.638	0.55	0.080	8.015	***	Significant
FP ← IS	0.387	0.42	0.065	5.960	***	Significant
FP ← MO	0.301	0.28	0.076	3.969	***	Significant

Then, the direct effect, the indirect effect and the total effect is calculated based on the output from Table 6.14.

Total effect: indirect effect + direct effect

Total effect:  $(MO \rightarrow IS) \times (IS \rightarrow FP) + (MO \rightarrow FP)$

Total effect:  $(0.55 \times 0.42) + (0.28)$

Total effect: 0.511 @ 51.10%

Variance accounted by indirect effect: indirect effect  $\div$  total effect

Variance accounted by indirect effect:  $(0.55 \times 0.42) \div 0.511$

Variance accounted by indirect effect: 0.452 @ 45.2%

Variance accounted by direct effect: direct effect  $\div$  total effect

Variance accounted by direct effect:  $0.28 \div 0.511$

Variance accounted by direct effect: 0.547 @ 54.7%

This shows that 54.7% of the variance of the direct effect between market orientation and firm performance is accounted for, while the variance of the indirect effect between market orientation and firm performance accounts for 45.2%. The variance of total effect is accounted at 51.1%. The variance indicates that the direct effect is more significant compared to the indirect effect and total effect. However, it is observed that the value of direct effect ( $MO \rightarrow FP$ ) is reduced when innovation success enters the model (from 0.50  $\rightarrow$  0.28). The type of mediation here is called 'partial mediation' since the direct effect of market orientation on firm performance is still significant after innovation success 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

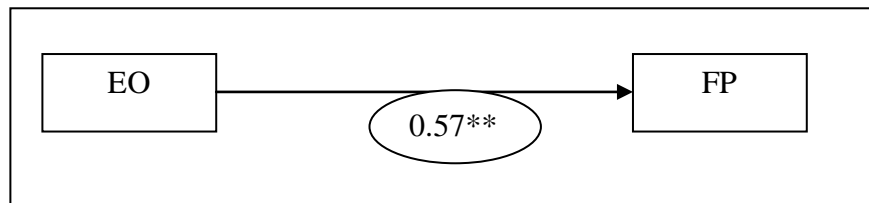


performance through innovation success. Thus, the result indicates that innovation success partially mediates the relationship between market orientation and firm performance.

***Mediation effect of Innovation Success on Entrepreneurial orientation and Firm Performance***

It was hypothesised that there would be a mediation effect of innovation success between entrepreneurial orientation and firm performance. First, the direct effect of market orientation and firm performance was derived as shown in Figure 6.6. Table 6.15 shows the result providing a beta coefficient of 0.57 for the direct effect of market orientation on firm performance and p-value is less than 0.001 levels (two-tailed).

**Figure 6.6 Modelling the Direct Effect of Market Orientation on Firm Performance**



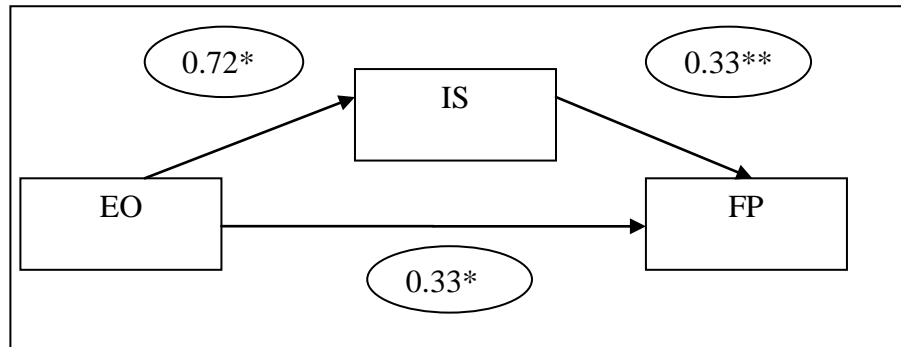
**(Entrepreneurial Orientation → Firm Performance)**

**Table 6.15 Output of Direct Effect**

	Unstandardised Estimates	Standardised Estimates	S.E.	C.R.	P	Label
EO ← FP	0.368	0.57	0.039	9.372	***	Significant

Next, the mediator construct is included in the model as shown in Figure 6.7. Table 6.16 shows the output of beta coefficient after the mediating construct of innovation success entered the model.

**Figure 6.7 Mediating Effect of Innovation Success on Entrepreneurial Orientation and Firm Performance**



**Table 6.16 Output of Innovation Success as the Mediation Effect**

	Unstandardised Estimates	Standardised Estimates	S.E.	C.R.	P	Label
IS ← EO	0.504	0.72	0.038	13.261	***	Significant
FP ← IS	0.306	0.33	0.079	3.859	***	Significant
FP ← EO	0.214	0.33	0.055	3.920	***	Significant

The direct effect, indirect effect and total effect was calculated from Table 6.16.

Total effect: indirect effect + direct effect

Total effect:  $(EO \rightarrow IS) \times (IS \rightarrow FP) + (EO \rightarrow FP)$

Total effect:  $(0.72 \times 0.33) + (0.33)$

Total effect: 0.567 @ 56.7%

Variance accounted by indirect effect: indirect effect ÷ total effect

Variance accounted by indirect effect:  $(0.72 \times 0.33) \div 0.567$

Variance accounted by indirect effect: 0.419 @ 41.9%

Variance accounted by direct effect: direct effect ÷ total effect

Variance accounted by direct effect:  $0.33 \div 0.567$

Variance accounted by direct effect: 0.582 @ 58.2%

The variance of the direct effect between entrepreneurial orientation and firm performance accounts for 58.2%, while the indirect effect between entrepreneurial orientation and firm performance accounts for 41.9% of the variance. The variance of total effect is accounted for 56.7%. It is observed that the value of direct effect (EO → FP) is reduced when innovation success enters the model (from 0.57 → 0.33). The direct effect of entrepreneurial orientation on firm performance is still significant after innovation success enters the model even though the beta coefficient for entrepreneurial orientation is reduced from 0.57 to 0.33, indicating a partial mediating effect. This means that entrepreneurial orientation has both a significant direct effect on firm performance and also significant indirect effect on firm performance through the mediator construct of innovation success. Thus, the results indicate that innovation success partially mediates the relationship between entrepreneurial orientation and firm performance and the hypothesis is accepted.

### ***Mediation Effect of Innovation Success on Interaction Orientation and Firm Performance***

It was hypothesised that there would be a mediation effect of innovation success between interaction orientation and firm performance. For calculating the mediation effect of the third variable, the direct effect between interaction orientation and firm performance needs to be significant. But as the testing of Hypothesis 1c showed that the direct effect of interaction orientation on firm performance was insignificant, the mediation effect of innovation success was not calculated. As Baron and Kenny (1986)

argue, if the direct relationship is not significant then the mediation effect cannot be calculated and the hypothesis (whatever it is) must be rejected.

Table 6.17 shows the summary of the results of hypothesis testing for Hypothesis 3 and each of its sub-hypotheses.

**Table 6.17 Summary of Hypothesis Testing for H3**

Hypotheses	Supported
H3a: Innovation success will mediate the relationship between entrepreneurial orientation and firm performance.	Yes
H3b: Innovation success will mediate the relationship between market orientation and firm performance.	Yes
H3c: Innovation success will mediate the relationship between interaction orientation and firm performance.	No

## 6.9 Summary

This chapter has described the analysis of the data conducted by using SEM–AMOS software and tested the validity of measurement dimensions used in the study. To summarise, the results for H1 show that entrepreneurial orientation and market orientation have a direct effect on firm performance, while interaction orientation is shown to be insignificant. The results for H2 show that market turbulence has a positive effect on all three components of strategic orientation, while competitive intensity has a positive effect on entrepreneurial orientation but negative effect market orientation and

interaction orientation. Lastly, the results for H3 show that innovation success was shown to have a partial mediation effect on the relationship of market orientation and entrepreneurial orientation to firm performance, but could not be calculated for interaction orientation as the primary relationship was shown to be insignificant in H1c. The implications of the finding for each hypothesis from the data analysis will be explained in the next chapter.

# Chapter 7 DISCUSSION

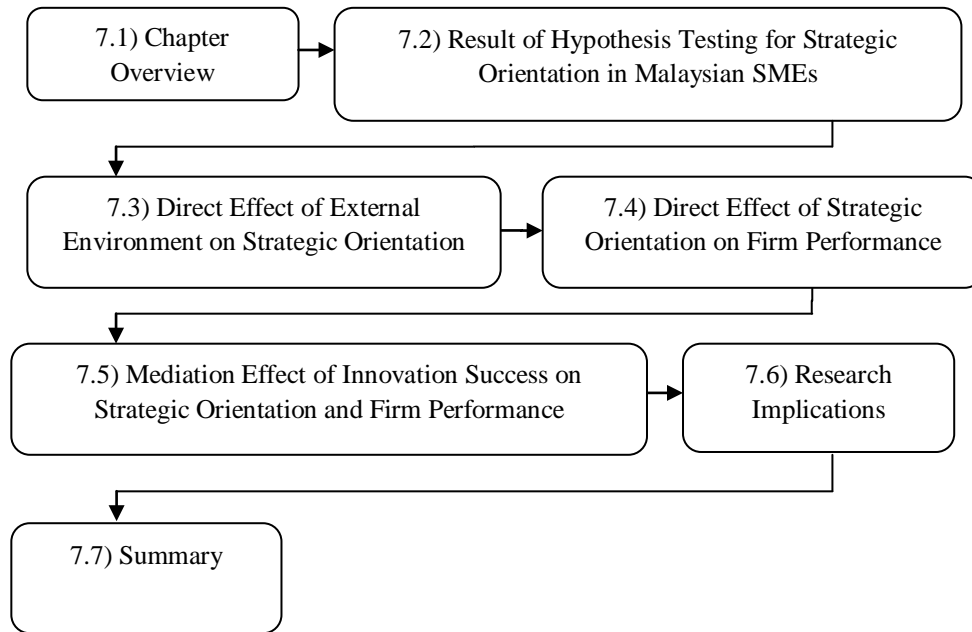
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## 7.1 Chapter Overview

This thesis developed a conceptual framework to measure how strategic orientation comprising of market, entrepreneurial and interaction orientation can be a driver of firm performance moderated by innovation success under the influence of external factors of market turbulence and competitive intensity. After the chapters outlining the conceptual models and hypotheses for the study, the data results for the research together with the analysis using structural equation modelling were discussed in the previous chapter.

This chapter will synthesise the findings from the field research and data analysis to engage in a critical discussion of the results of the study. Firstly, this chapter will discuss the results of the data analysis for each of the hypotheses posed in the research model. The hypotheses of the study belong to three broad categories, namely, the direct effect of strategic orientation components (market orientation, entrepreneurial orientation and interaction orientation) on firm performance, the mediation effect of innovation success on the relationship of strategic orientation between firm performance, and the direct effect of factors of external environment (market turbulence and competitive intensity) on strategic orientation. Secondly, this chapter will discuss the implications of the findings of this research for the theoretical literature on strategic orientation and firm performance. This will be followed by a discussion of the practical implications of the findings of this study for improving firm performance in Malaysian SMEs. Figure 7.1 shows the order in which these issues will be discussed.

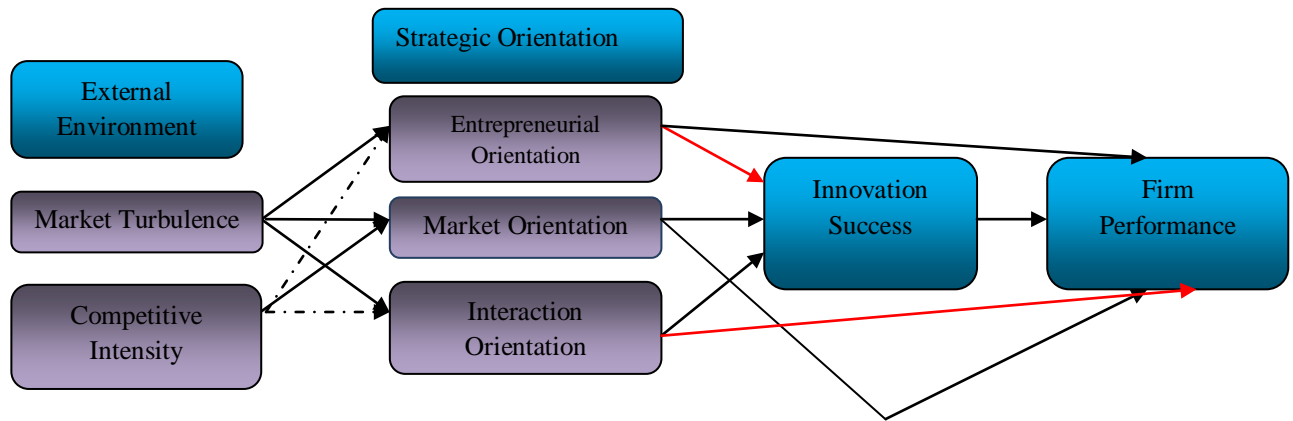
**Figure 7.1 Chapter Organisation**



## 7.2 Results of Hypotheses Testing for Strategic Orientation in Malaysian SMEs

This study developed a conceptual framework integrating three components of strategic orientation to test their effect on improving firm performance and applied this framework to research in Malaysian SMEs. The general thrust of the research model is that strategic orientation adopted in Malaysian SMEs will lead to superior firm performance through innovation success under the conditions of external environment of competitive intensity and market turbulence. As mentioned earlier, the conceptual model in Chapter 4 proposed three main hypotheses; the direct effect of strategic orientation on firm performance, the mediation effect of innovation success on this relationship and the direct effect of external environment on strategic orientation constructs. Figure 7.2 presents the final model of the interrelationships between the different variables established after analysing the evidence gathered in the study.

**Figure 7.2 Final Strategic Orientation Model**



Arrow Indicator

Positive: Black arrow  
 Insignificant: Red arrow  
 Negative: Dot arrow

1) The direct effect of external environment on constructs of strategic orientation

a. Competitive intensity

- i.  $CI \rightarrow EO$ : Competitive intensity has a positive effect on entrepreneurial orientation.
- ii.  $CI \rightarrow MO$ : Competitive intensity has a negative effect on market orientation.
- iii.  $CI \rightarrow IO$ : Competitive intensity has a negative effect on interaction orientation.

b. Market turbulence

- i.  $MT \rightarrow EO$ : Market turbulence has a positive effect on entrepreneurial orientation.
- ii.  $MT \rightarrow MO$ : Market turbulence has a positive effect on market orientation.
- iii.  $MT \rightarrow IO$ : Market turbulence has a positive effect on interaction orientation.



- 2) The direct effect of strategic orientation on firm performance
  - a. EO→FP: Entrepreneurial orientation has a direct and positive effect on firm performance.
  - b. MO→FP: Market orientation has a direct and positive effect on firm performance.
  - c. IO→FP: Interaction orientation does not have a direct effect on firm performance.
- 3) The mediating effect of innovation success on the relationship between strategic orientation and firm performance
  - a. EO→IS→FP: Innovation success mediates the relationship between entrepreneurial orientation and firm performance.
  - b. MO→IS→FP: Innovation success mediates the relationship between market orientation and firm performance.
  - c. IO→IS→FP: Innovation success may be resulted from interaction orientation, but as interaction orientation does not lead to firm performance, innovation success does not mediate the relationship.

Evidence from Chapter 6 showed that overall model-fit of the conceptual framework to the empirical context was satisfactory; however, as outlined above some of the proposed hypotheses were not supported by the data. Market orientation does not have any influence on innovation success (H3b) and interaction orientation does not have any influence on firm performance (H1c). It was also shown that competitive intensity negatively impacted on market orientation (H2e) and interaction orientation (H2f). As some of the hypotheses have been proved and others rejected in the empirical testing and data analysis, this chapter now proceeds to a critical discussion of the findings to understand the possible reasons for the findings and the implications they hold for the

actual context of strategic orientation and firm performance in Malaysian SMEs. The findings will be discussed in chronological order as they flow through the model. The discussion will start with the external environment constructs, which affect the strategic orientation components, which then affect the firm performance.

### **7.3 Direct Effect of External Environment on Strategic Orientation**

This thesis adopted market turbulence and competitive intensity as factors representing conditions in the external environment which may affect the success and operation of any businesses in the real world. Market turbulence is best described as the changes in customer preference, while competitive intensity is the extent to which the activities of competitors imitating or improving product offering causes pressure on the firm's business. These two components have been tested in the previous literature and been generally accepted to be suitable moderators of external environment for strategic orientation. This thesis, however, modified the effect of these two factors of external environment on strategic orientation from a moderating to a controlling relationship and hypothesised that these two will have a direct effect on strategic orientation components. As it was explained in Chapter 4, many studies using a moderating relationship have arrived at mixed results (Gray et al. 1999, Rose and Shoham 2002, Subramaniam and Gopalakrishna 2001). Hence, it was decided in this thesis to scale-up the effect of external environment on strategic orientation to create a more potent measurement for this relationship. Also, it was argued that this hypothesis reveals a more accurate picture of the real world, where conditions of market turbulence or competitive intensity do not just moderate strategic orientation but directly influence business owners to undertake actions and methods to remedy the situation. The next

section will discuss the findings of the direct effect of external environment components on strategic orientation components and what this means for Malaysian SMEs.

### **7.3.1 Market Turbulence and Entrepreneurial Orientation (H2b)**

Market turbulence was found to have a direct and positive effect on entrepreneurial orientation in this study. This is consistent with a study by Covin and Slevin (1989) which found that market turbulence (conceptualised as hostile or benign environment) has a direct effect on entrepreneurial orientation. In a hostile environment, entrepreneurs tend to be more proactive, innovative and competitive in order to capture the target market. The overall level of entrepreneurial orientation is higher in a hostile environment in comparison to a benign environment.

The positive relationship between the two in this thesis also supports this to show that market turbulence will have a direct positive effect on entrepreneurial orientation in Malaysian SMEs. When customer preferences are changing or there is instability in the market with changing products, entrepreneurs from Malaysian SMEs interviewed in this study, agree that they need to rise to the challenge by boosting their entrepreneurial skills. In the words of Covin and Slevin, such a hostile environment can cause Malaysian entrepreneurs to be more proactive and innovative as they react to customer preferences, set their strategies to cope with such changes and drive their SME towards better performance.

This thesis has argued that market turbulence has a direct positive effect on entrepreneurial orientation, and this is significantly different from other studies where market turbulence has generally been conceptualised as a moderating variable. Also, most studies on the issue have examined entrepreneurial orientation in relation to other control variables. For instance, Lee and Lim (2009) relate the direct effect of cultural

components of an organisation (dynamism, munificence, complexity, industry and organisation characteristic) on entrepreneurial orientation, while Zhang (2008) argues that the internal locus of control, innovation and generalised self-efficacy of a firm has a direct effect on entrepreneurial orientation. These studies use the internal characteristics of a firm as control variables of their capacity to actualise entrepreneurial orientation. On the other hand, this study is not concerned so much with how entrepreneurial orientation is formed in any firm by its internal dynamics but how an existing quotient of entrepreneurial orientation may be affected by the external environment.

### **7.3.2 Market Turbulence and Market Orientation (H2a)**

According to Kirca et al. (2005), market turbulence is one of the most investigated moderators for market orientation apart from competitive intensity and technological turbulence. However, mixed results have been reported in the literature about the moderation effect of market turbulence on market orientation. Previous studies by Harris (2001) and Pulendran et al. (2000) show that market turbulence moderated market orientation, but studies by Slater and Narver (1994) and Greenley (1995) found the opposite effect showing an insignificant relationship. Many other studies have subsequently supported this to argue that the relationship between market orientation and market turbulence is not significant (Gray et al. 1999, Rose and Shoham 2002, Subramaniam and Gopalakrishna 2001). As a result, this thesis did not measure the moderating influence of market turbulence but rather its direct effect on market orientation.

This thesis conceptualised the effect of market turbulence on market orientation as changes of customer preferences and its consequences on the marketing operation of a business. The results show that market turbulence has a significant direct effect on market orientation. The implication of this finding for the research problem at hand is

that market turbulence is not to be neglected and must be considered in strategies of market orientation adopted by Malaysian SMEs. This means that factors of market turbulence need to be controlled in order to boost market orientation of the firm so that it can maintain or improve its performance. This could mean taking measures to keep up with changing customer preferences and adverse market conditions.

In addition, it can be argued that the empirical evidence of positive direct relationship between market turbulence and market orientation also deepened the significance of this construct as a control variable. In the existing literature, market orientation has mostly been tested with four control variables of size, profit orientation, location and age of the firm (Fottler, 1987; Blair and Boal, 1991; Zallocco and Joseph, 1991). These control variables relate to the internal characteristics of the firm, but this thesis suggests that a factor of external environment like market turbulence can also be a control variable to market orientation.

### **7.3.3 Market Turbulence and Interaction Orientation (H2c)**

The results for H2c suggest that market turbulence is a significant and positive determinant of interaction orientation. As mentioned previously in the literature review (Refer to Section 2.4.2), the determinants of interaction orientation can be categorised into three types: management-level, firm-level and industry-level characteristics. This thesis found that market turbulence had a direct effect on interaction orientation especially at the firm and management level. At the firm-level, market turbulence can exert some influence on product offerings in changing market conditions that can have an influence on trademark and patent protection. At the management-level, market turbulence due to instability of customer preferences can influence the approach and efficiency of the management in meeting these challenges.

The direct effect of market turbulence on interaction orientation means that Malaysian SMEs understand that changing customer preferences or product offerings under market turbulence requires them to adopt strategies and actions that improve their interaction orientation to improve their customer value. At the firm-level, Malaysian SMEs need to calibrate their product offerings carefully in tune with market demands. At the management-level, Malaysian SMEs need to ensure that their managers adopt the best practices in customer service to adapt to changing customer preferences.

This finding is quite significant for the literature. The construct of interaction orientation has recently been proposed by Ramani and Kumar (2008) with a convincing rationale backing their customer interaction-based notion of strategic orientation, but it has not been tested or validated in any empirical study till now. The relationship between market turbulence and interaction orientation shown in this study, establishes interaction orientation as a significant construct.

#### **7.3.4 Competitive Intensity and Entrepreneurial Orientation (H2e)**

Competitive intensity was found to have a positive direct effect on entrepreneurial orientation. This means that when there is greater threat of competition from similar firms in the market, entrepreneurs will take actions and make strategies to counter these challenges to improve their firm performance. The feedback from Malaysian SMEs validating this relation implies that these entrepreneurs realise the need to improve their own approach to business when facing competition.

The construct of entrepreneurial orientation is well-established and has been tested against other independent constructs for moderation or dependence, but there has been no investigation about the relation between competitive intensity and entrepreneurial orientation. This is perhaps because competitive intensity conceptualised as the degree

of competition in the industry has always been linked with market orientation whereas entrepreneurial orientation referring to the sum of strategy-making process has often investigated against internal factors such as the size of the firms and technological intensity (Rauch et al. 2009). Therefore, entrepreneurial orientation has not been studied in alignment with a market-oriented factor like competitive intensity and the finding of this study adds a new dimension to the strategic orientation literature.

The positive relationship between competitive intensity and entrepreneurial orientation could also be explained by the sample for this current study. It can be argued that SMEs from the service industry need constant effort from entrepreneurs to stay ahead of the competition and offer services that satisfy the customer's wants. For that reason, competitive intensity and entrepreneurial orientation are strongly related for service sector SMEs and the relation between the two should actually be seen as mutually confirming each other. While strong entrepreneurial orientation could bring about competitive intensity and aggressiveness toward competitor's action (Lumpkin and Dess 1996), competitive intensity could also stimulate entrepreneurial orientation in a firm. Therefore, this finding provides a new avenue for further investigation on the relationship between competitive intensity and entrepreneurial orientation that has yet to be fully explored.

### **7.3.5 Competitive Intensity and Market Orientation (H2d)**

This study found that competitive intensity has a significant but negative influence on market orientation, so hypothesis 2d was rejected. This means that when there is more competitive intensity experienced by the firm, the market orientation will be lower. In other words, when the industry is in a competitive phase, the firm's commitment to adopt the best practices in marketing tends to be lower.

Given this negative evidence for the hypothesis, the implications of this finding for the study need to be interpreted with some caution. The assumption behind the hypothesis was that competitive intensity in the market will encourage firms to adopt strategies to boost their market orientation. The feedback from the respondents, however, showed the contrary as Malaysian SMEs retracted their efforts in market orientation when faced with competitive intensity. This could mean that in conditions of competitive intensity, Malaysian entrepreneurs perhaps see any efforts towards market orientation as futile or ineffective.

Competitive intensity has never been tested as a control variable directly effecting market orientation but is regularly tested as a moderating variable. Previous studies testing competitive intensity in a moderating relationship with market orientation have, however, found mixed results—while Kirca et al. (2005) found this relationship to be insignificant, some studies have shown that it was positive and significant (Bhuyan 1998, Diamantopoulos and Hart 1993, Harris 2001, Kumar et al. 1998). This thesis used competitive intensity as a control variable in order to avoid these inconclusive results.

The testing of the direct relationship between competitive intensity and market orientation also provides a new dimension to the strategic orientation literature. The negative effect of competitive intensity on market orientation corroborates the arguments against the relevance of competitive intensity made by some scholars. For example, Sørensen (2009) argues that competition within the industry may lead to poor firm performance and Jaworski and Kohli (1993) explain that higher competitive intensity will give customers more options leading to lesser market dominance of the firm and reduced sales. While these scholars have not carried out any research to validate their ideas, this research provides empirical evidence that not only supports but



presents a more nuanced version of this negative relationship between competitive intensity and firm performance by arguing that competitive intensity will drive down the level of market orientation finally resulting in poorer firm performance.

### **7.3.6 Competitive Intensity and Interaction Orientation (H2f)**

Competitive intensity was found to have a significant influence on interaction orientation, however, just like the effect of competitive intensity on the market orientation construct, the relationship here was also found to be negative. Since market and interaction orientation are somewhat similar in their focus on the customer and market, it seems plausible that interaction orientation also shows similar traits to market orientation and is negatively related with competitive intensity like market orientation. Although there are significant differences in their overall focus, interaction orientation and market orientation share their emphasis on adding superior customer value.

This implies that Malaysian SMEs tend to retract from their emphasis on customer service and interaction when there is strong competition. The higher the competitive intensity experienced by the firm, the lower its interaction orientation or the sum of actions that it undertakes within the rubric of customer service. This situation perhaps occurs because when there is competitive intensity in the market customers will have more choices and preferences to turn to for acquiring a certain service. Only tangible changes in their product offerings and price points can retain or attract customers in a competitive market, and merely improving the quality of service through interaction orientation will just be seen as window-dressing and rejected by customers. Due to this, entrepreneurs may feel that any action taken towards improving their customer service and interaction may not be enough to satisfy the customer.

Interaction orientation is a new concept introduced by Ramani and Kumar (2008) to reflect the importance of customer service in today's interactive and service-oriented economy. This study adds to the literature on this relatively new concept which has only been tested so far by in the original study by Ramani and Kumar. Ramani and Kumar (2008) subsumed market orientation within interaction orientation and tested competitive intensity for its moderation effect. This thesis, however, uses interaction and market orientation as separate constructs, one focussing on customer service and the other on market conditions. Also, in this thesis interaction orientation has been tested in a direct instead of moderating relationship with competitive intensity.

The negative effect on interaction orientation and consequently firm performance can be due to quite a few reasons. Although there are significant differences in their overall focus, interaction orientation and market orientation share their emphasis on adding superior customer value. Since market and interaction orientation are somewhat similar in their focus on the customer and market, it seems plausible that interaction orientation also shows similar traits to market orientation and is negatively related with competitive intensity like market orientation.

In summary, previous studies argue that external environment acts as a moderating influence on strategic orientation, but this thesis chose to scale up the measurement of this relationship and proposed that factors in external environment have a direct effect as control variables on strategic orientation. Following this hypothesis, market turbulence was found to have a direct effect on all three types of strategic orientation investigated here, but competitive intensity only had a direct influence on entrepreneurial orientation and is negatively related to market and interaction orientation. This means that in a competitive environment only entrepreneurial orientation is positively affected, whereas firms downscale their efforts in marketing

operations and customer service focus leading to lesser market orientation and interaction orientation. The possible reason for this is that in a competitive environment, improving customer value through market orientation and interaction orientation may not necessarily help to retain or attract customers. In a competitive environment, firms need to take tangible steps in terms of actual product offerings or lowered price-point to compete with other firms. In such a situation, strategies focussing on production and sales delivering competitive goods at lower price points are more important than additional services like attractive marketing or better customer value or service. Besides, specialisation and customisation required in improving customer service can incur extra costs and require time to deliver results.

Conversely, it also means that when market orientation and interaction are no longer advantageous to SMEs facing competitive intensity, entrepreneurial orientation needs to play a bigger role in order to ensure the survival and success of the firms. In an environment of competitive intensity, where competitors try to imitate or improve the product offerings, the role of entrepreneur is very crucial. The entrepreneur needs to be aware of their competitor's action and needs to take actions to be a step ahead of them.

#### **7.4 Direct Effect of Strategic Orientation on Firm Performance**

The discussion in this section is concerned with the direct effects of the three components of strategic orientation components (entrepreneurial orientation, market orientation and interaction orientation) on firm performance of Malaysian SMEs.

##### **7.4.1 Entrepreneurial Orientation and Firm Performance (H1a)**

Entrepreneurial orientation was found to have a direct and positive effect on firm performance. This means that entrepreneurial orientation can support superior firm performance in Malaysian SMEs. Entrepreneurial orientation here refers to the extent to

which the entrepreneur of the firm invests efforts in dealing with existing business conditions and possesses a right mix of entrepreneurial orientation characteristics. These include characteristics such as 1) innovativeness (in terms of new ideas, novelty, experimentation, creative processes), 2) proactiveness (acting in anticipation of future problems, needs or changes), 3) risk taking (in terms of venturing into the unknown, committing a relatively large portion of assets or borrowing heavily), 4) autonomy (independent action of an individual or a team) and 5) competitive aggressiveness (firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position). The participants in this study from Malaysian SMEs agree that firms can stay ahead of their competitors and attract customers if the entrepreneur has such an orientation. It may be argued that entrepreneurial orientation has even more relevance as a contributor to SMEs in the service industry because the product sold to the customers in this sector are intangible services which are produced and delivered within the firm and their quality depends upon the vigilance and effort put in by the entrepreneur rather than the quality of the product determined by the production apparatus in the manufacturing or agriculture sector.

This finding in this thesis supports the research done on entrepreneurial orientation by Covin and Slevin (1986), Zahra (1991), Lumpkin and Dess (2001) and Rauch et al. (2009) who find that it is a positive factor in improving firm performance. Rauch et al. (2009) argue that entrepreneurial orientation has received worldwide acceptance for the richness of its conceptual meaning and the relevance of the construct to actual firm performance. While there is substantial research on entrepreneurial orientation, except for a study by Poon et al. (2006) who examined entrepreneurial orientation as a mediator on firm performance, there is no existing research on entrepreneurial

orientation in Malaysian SMEs. This study has incorporated entrepreneurial orientation as an independent variable with direct effect on firm performance.

#### **7.4.2 Market Orientation and Firm Performance (H1b)**

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 service industry realise the value of market orientation to firm performance. Arguably, market orientation is particularly important for SMEs in the service industry. As Gray and Hooley (2002) argue, the relationship between market orientation and firm performance is stronger for service sector firms than firms in the manufacturing sector. Although the success of goods produced in the manufacturing or agriculture sector benefit from good marketing, their success in the market is determined more by their substantive quality and utility as a product. On the other hand, the product of a service sector i.e. the particular service it provides is produced at the very site of custom and depends on the extent to which they are able to capture the customer attention there and then. Service-sector SMEs depend most heavily on marketing to provide service that tap into customer preferences and use appropriate marketing to attract customers. It has been estimated that 73% of SMEs in service sector were affected by the economic downturn in Malaysia, but firms with market orientation capabilities were able to escape some of the worst after-effects of the economic downturn (Abdullah and Beal 2003).

This finding confirms previous studies which have shown a significant direct effect of market orientation on firm performance (Deshpande and Farley 1998a, Slater and Narver 2000, Cano et al. 2004). But the research on this issue in international studies on market orientation is more focussed on developed countries than developing countries

(Cano et al. 2004) and there is very limited research on market orientation in Malaysian SMEs. This thesis gives empirical evidence to support the significance of market orientation, particularly for SMEs in the service industry, who need to pay attention to improve their service delivery system to make sure that the services meet the customer's demand. If the owners or entrepreneurs of the firm are able to capture the problem and take action at the delivery stage, they will be able to retain their customers.

#### **7.4.3 Interaction Orientation and Firm Performance (H1c)**

Interaction orientation was not found to be a significant determinant of firm performance. The originators of this concept argue that interaction orientation has a significant effect on customer-based relational performance and customer-based profit performance (Ramani and Kumar 2008), leading to improvement in performance with increased return-on-sales and return-on-assets. However, the result for Malaysian SMEs from this research showed inconclusive evidence for the effect of interaction orientation on firm performance.

The non-significance of interaction orientation, however, needs to be explained with some qualifications. The insignificant result for interaction orientation does not necessarily mean that it is completely irrelevant to firm performance. Although participants in this study are doubtful about any direct effect of interaction orientation on firm performance, interaction orientation focussed on improving customer service and capitalising on customer relationship could deliver some long-term and indirect results on firm performance, which these participants are not cognisant of. It could also be that interaction orientation cannot be modelled simultaneously with market orientation and entrepreneurial orientation. As stated earlier, Ramani and Kumar (2008) who originated the concept found positive evidence for interaction orientation when they studied it alone as a factor behind firm performance. Unlike the other concepts in

strategic orientation, interaction orientation has not been tested for rigour to the same extent and more research is generally needed in this area. Further research on interaction orientation and firm performance is needed to test the validity of the construct alone and in cohesion with other constructs of strategic orientation.

Its originators Ramani and Kumar (2008) also proposed an INTOR measure that carries the same meaning as the construct of interaction orientation but is supposed to simplify the measurement of the construct. This research tested the psychometric properties of INTOR and it was found it did not meet specified standards and as a result it was altered from four dimensions with 12 items to a single dimension with five items after exploratory factor analysis and preliminary confirmatory factor analysis. More research needs to be carried out on this INTOR measure to stabilise the measure and develop a scale that synchronises the most optimum measurement of interaction orientation.

In summary, as noted earlier, a significant contribution of this research was to incorporate the relatively new concept of interaction orientation as a construct of strategic orientation. This thesis had hoped to find significant results for this new concept, as its originators Ramani and Kumar (2008) had promoted it as a vital construct to capture forces that can boost firm performance in today's interconnected and interactive market focussed on customer service and information availability. However, this empirical study has found no evidence to demonstrate that interaction orientation has a direct positive effect on firm performance. On the other hand, market orientation and entrepreneurial orientation which have been consistently tested and validated in previous studies were both proven to have a direct positive effect on firm performance for Malaysian SMEs.

## **7.5 Mediation Effect of Innovation Success on Strategic Orientation and Firm Performance**

Innovation is an instrument that can be used by entrepreneurs in manipulating opportunities for diverse business operations; and entrepreneurs must be deliberate and make informed choices about the sources or ideas of innovation (Drucker 1999). In this thesis, innovation success or the extent to which a new product, concept or brand/line extension is hypothesised to act as a mediator in the relationship between strategic orientation and firm performance. This approach is premised on the belief that any attempt to improve a strategic orientation should lead to some kind of improvement in its existing way of doing business leading to better performance. The current research follows Baker and Sinkula (2009) who integrated innovation success as a mediator between market orientation/ entrepreneurial orientation and firm performance. In this thesis, innovation success is tested on a larger scale in concert with three different constructs of strategic orientation. The following sections will discuss the mediation effect of innovation success on the relationship between each component of strategic orientation and firm performance.

### **7.5.1 Innovation Success: Entrepreneurial Orientation and Firm Performance (H3b)**

It was found that innovation success has a significant effect as a mediator on the relationship between entrepreneurial orientation and firm performance. Awang et al. (2009) found that innovativeness is associated with entrepreneurial orientation and firm performance among SMEs in Malaysia. The evidence from Malaysian SMEs proves that when these firms undertake actions to improve the overall approach towards business as proactive entrepreneurs this will lead to innovation success in form of improved goods or services, which can then lead to superior firm performance.



A previous study by Baker and Sinkula (2009) found that there is a significant mediation effect of innovation success on entrepreneurial orientation with firm performance. They argue that firms with proactive entrepreneurs are more clued in with the demands of their business and adopt best practices or continually work to improve the output of the firm which will then lead to innovation success. This is applicable here in the current study as well, since Malaysian entrepreneurs realise that when they adopt a proactive stance they can deliver innovation success.

### **7.5.2 Innovation Success: Market Orientation and Firm Performance (H3a)**

Innovation success was found to significantly mediate the relationship between market orientation and firm performance. The mediation effect of innovation success between market orientation and firm performance needs to be explained a bit further. The hypothesis posits that when a firm adopts market orientation it will achieve innovation success 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. Therefore, this thesis argues that innovation success mediates and enhances the relationship between market orientation and firm performance.

The positive result for this hypothesis means that adoption of market orientation by Malaysian SMEs will lead to innovation success in strategies of product, process or marketing to match customer preferences which will then lead to superior firm performance. As customer preferences change rapidly, Malaysian SMEs that adopt market orientation become capable of offering innovative products or services to their customers and succeed in the market.

The finding confirms a previous study by Baker and Sinkula (2009) who found innovation success to have a positive mediating effect on market orientation and firm performance. As Day (1994) argues, market-oriented firms are capable of responding to customer's need with new products and services. But in spite of the fact that market orientation is one of the oldest and most longstanding concepts in the strategic orientation literature, Baker and Sinkula (2009) are the only scholars who have proposed the mediating relationship of innovation success to market orientation/ firm performance relationship and studied it in some depth. More research needs to be undertaken to gather evidence to further validate this relationship between market orientation, innovation success and firm performance.

### **7.5.3 Innovation Success: Interaction Orientation and Firm Performance (H3c)**

As argued earlier in the chapter, interaction orientation did not have a significant direct effect on firm performance, as a result the mediation effect of innovation success on this relationship could not be measured. The rules of mediation outlined by Baron and Kenny (1986) state that there must be a significant direct effect between the two independent variables to test the effect of a moderator. However, in spite of this the relationship between innovation success and interaction orientation needs some additional clarification. Interaction orientation is also conceptualised as customer-centric orientation between the firm and customers (Sheth et al. 2000) and is different from firm-level strategic orientation such as market orientation and entrepreneurial orientation. While firm-level strategic orientation such as market orientation and entrepreneurial orientation contribute to business-level performance like return-on-sales and return-on-assets (Noble et al. 2002), customer-centric orientation like interaction orientation could contribute to customer-centric improvements (Jayachandran et al. 2005). But this may not necessarily translate into increased sales or productivity, and

this could be the reason why interaction orientation could lead to innovation success without resulting in firm performance. Perhaps, instead of acting as a mediator as it has been treated here, innovation success is actually the outcome or consequence of interaction orientation. Further research should be carried out to understand the implications of this issue.

In summary, the findings in this study show that the mediating effect of innovation success holds true for market orientation and entrepreneurial orientation to a certain extent but not for interaction orientation. The mediation effect of innovation success on interaction orientation was not tested since there is no direct relationship between interaction orientation and firm performance. Although the two independent variables of firm performance and interaction orientation are not related, it could perhaps be the case that interaction orientation has a direct effect on innovation success but the respondents were not cognisant of any final effect on firm performance. Baker and Sinkula (2009) are the only scholars who have proposed the mediating relationship of innovation success to market orientation and entrepreneurial orientation with firm performance relationship and studied it in some depth. More research needs to be undertaken to gather evidence to further validate this relationship between strategic orientation, innovation success and firm performance.

## **7.6 Research Implications**

The sections above detailed the findings relating to the three broad categories of findings, namely, the direct effect of factors of external environment (market turbulence and competitive intensity) on strategic orientation, the direct effect of components of strategic orientation (entrepreneurial orientation, market orientation and interaction orientation) on firm performance and the mediating effect of innovation success on the

relationship between strategic orientations and firm performance. The discussion here in this section will bring together all the findings and attempt to create a holistic overview of the implications from the testing of the conceptual model. This section will discuss the significance of the findings and the implications of this research 1) for the literature on strategic orientation and firm performance of SMEs 2) for practical context of Malaysian SMEs.

### **7.6.1 Implications for Theory and Literature on Strategic Orientation**

Although this study is conducted in Malaysia, some general implications can be derived for theoretical literature on this topic that are not localised to the context of the study. From a theoretical perspective, this research provides an understanding of how firms can gain superior performance with the proposed components of strategic orientation mediated through innovation success under the direct influence of the external environment.

This thesis validates existing studies which argue that market orientation and entrepreneurial orientation can enhance firm performance (Gatingnon and Xuereb 1997, Zhang 2008, Rauch et al. 2009, Kirca et al. 2005). Interaction orientation is a relatively new construct of strategic orientation said to effect firm performance by contributing to customer-based profit performance and customer-based relational performance (Ramani and Kumar 2008). However, this was not completely supported as there was inconclusive evidence to show a tangible relationship between interaction orientation and firm performance. More research on this topic is needed to better understand the association between interaction orientation and firm performance. .

The mediation effect of innovation success on the relationship between market orientation and firm performance as well as entrepreneurial orientation and firm

performance was supported. This is also consistent with a major study conducted by Baker and Sinkula (2009) who argue that market orientation and entrepreneurial orientation have a positive effect on firm performance when it is mediated by innovation success. But Baker and Sinkula (2009) are the only scholars who have proposed the mediating relationship of innovation success to market orientation and entrepreneurial orientation with firm performance relationship and studied it in some depth. More research needs to be undertaken to gather evidence to further validate this relationship between strategic orientation, innovation success and firm performance.

On the other hand, the mediation effect of innovation success on interaction orientation could not be tested because interaction orientation was not found to have any effect on firm performance. Even so it could be possible that interaction orientation leads to innovation success. Previous findings on interaction orientation show that interaction orientation can lead to customer-based profit performance and customer-based relational performance. But this may not necessarily translate into increased sales or productivity, and this could be the reason why there was inconclusive evidence to prove that interaction orientation has a positive effect on firm performance. However, future studies should be carrying out to further validate the relationship between interaction orientation and innovation success.

This study has also highlighted the effect of external environment on strategic orientation. Market turbulence was found to have a direct positive effect on all three constructs of interaction orientation. On the other hand, the evidence in this study showed varying effects of competitive intensity on strategic orientation where competitive intensity had a positive effect on entrepreneurial orientation, but it adversely affects market orientation and interaction orientation. Marketing literature generally supports the relationship between market orientation and firm performance.

But despite this general consensus, a study like Dickson (1996) has suggested that the market orientation paradigm is not dynamic enough to provide a sustainable competitive advantage. A study by Covin and Slevin (1989) suggest that entrepreneurial orientation and firm performance relationship is higher in hostile environments. Similarly, a study by Dess et al. (1997) argues that entrepreneurial orientation is more relevant in uncertain or turbulent environments. Thus, Gonzalez-Benito et al. (2009, p. 506) summarised the relationship between entrepreneurial orientation and firm performance as being characterised by *“high competitive intensity, a lack of readily exploitable market opportunities, great competitive market and product-related uncertainties and general vulnerability to influence by factors external to and uncontrollable by the firm”*.

While previous studies have employed the external environment as a moderating variable many of these have delivered inconclusive results and this study argued that it is better examined as a control variable of strategic orientation. But the study does not totally deny the possibility or efficacy of a moderating relationship; instead it suggests that a researcher use market turbulence and competitive intensity as a moderator or a control variable depending on the context of his research.

### **7.6.2 Implications for Practical Operations in Service Sector Malaysian SMEs**

Each dimension of the overall conceptual model used in this thesis can be interpreted into practical guidelines about the internal actions and external factors that SMEs need to focus on to achieve superior firm performance. The findings from the research relate to the actual case of service sector SMEs in Malaysia, but can also be held to pose significant implications for other SMEs in the country as well as SMEs in other developing countries.

As entrepreneurial orientation was generally found to be positively related to all other variables in the conceptual model, it has emerged as the most significant dimension of strategic orientation. This finding could provide a roadmap for the order in which strategic orientations need to be applied in any firm. For SMEs in the service industry, entrepreneurial orientation can play a major role in determining the survival and success of the firms. After entrepreneurial orientation is established, firms need to understand and establish market orientation to adopt the best marketing techniques that are able to counter challenges of changing customer preferences and product offerings from competitors. As mentioned previously, the unit of analysis for entrepreneurial orientation is team-based which comprises of proactiveness, innovativeness and risk-taking. These attributes are suggested to be effective among the high-context culture such as Malaysia, Thailand or Indonesia. It is also interesting to acknowledge that for a collectivism country like Malaysia, entrepreneurial orientation is important within the organisation since the employer/employee relationship is perceived as a family link where trust between employer and employee is paramount. As a result, proactiveness took place when the trust is there. Also, Malaysia is classified as low uncertainty avoidance which is a more relaxed society and does not really feel threatened by innovation. Here it is suggested that innovativeness in the entrepreneurial orientation construct does not play a significant role and needs to be enhanced by innovation success or the physical innovation in order for firms to be successful.”

Although interaction orientation, which is focussed on improving customer service and interaction, was not shown to have an effect on firm performance directly, it may still prove to be important for the long-term success of any firm in establishing a profitable customer relationship. The inconclusive evidence here in this research may not necessarily mean that interaction orientation as a construct is irrelevant but that its effect

on firm performance may be made redundant during the actual process of service delivery when there is a lack of commitment from the staff during the interaction process to activate interaction orientation in good faith. This problem may be solved with a training of the staff and managers but training programs have a certain gestation period before they can yield any result (Denison 1990). Also, efforts to initiate interaction orientation could incur expenses that would be deleterious to the business when interaction orientation is not properly instrumentalised and rather than creating a profitable relationship this could lead to potential drawbacks for firms. As Lim (1995) argues, there is not much evidence to prove that a fundamental relationship between innovation in organisational culture and short-term firm performance.

The direct effect of external environment on strategic orientation holds some implications for how Malaysian SMEs need to counter challenges posed by shifting conditions in their environment. Firms need to gather information about the conditions in the external environment to figure out which strategic orientations can work best in the situation. The practical implications of this result needs to be interpreted with some caution as different environments demand different orientations to ensure the success and survival of the firm. Competitive intensity was found to have a positive effect on entrepreneurial orientation but a negative effect on market orientation and interaction orientation. As a consequence, entrepreneurial orientation needs to play a major role in determining the success of firms. On the other hand, market turbulence was found to have a direct effect on all three constructs of strategic orientation. When experiencing conditions of market turbulence, SMEs need to pay attention on all aspects of their strategic orientation. They need to adopt strategies in market orientation with the appropriate marketing efforts and entrepreneurial orientation where the entrepreneur adopts a proactive stance to counter challenges of changing products and customer



preferences in the market. Even if interaction orientation was not found to relate positively to firm performance, Malaysian SMEs can take steps towards interaction orientation to improve customer value that can then help counter market turbulence.

The theoretical model also made use of innovation success as a mediator of firm performance to understand if firms should pursue innovation in products and services. Here, the study showed positive result for innovation success as a partial mediator on the effect of entrepreneurial orientation and market orientation on firm performance. In practical terms, this means that SMEs need to adopt innovative marketing strategies to better tap into customer demands and entrepreneurs need to assume a proactive approach to create services or products offering advantages over existing services or products offered by other firms. Although interaction orientation was found to be insignificant on firm performance, it may however have some relation with innovation success. This means that innovative customer interaction and service strategies must be adopted, but a cautious eye must be kept to ensure that these innovation successes translate into real gains for the firm. As interaction orientation was not found to have direct effect on firm performance, costs and efforts invested in such endeavours must be cautiously monitored to ensure that any innovation success resulting from there is not merely a formal exercise but actually results in increased sales or customers.

## **7.7 Summary**

This chapter has presented a critical discussion of the findings in this research derived from the testing of the hypotheses in Chapter 6. While there was evidence showing positive effect of market orientation and entrepreneurial orientation on firm performance, there was no conclusive evidence to prove that interaction orientation can lead to firm performance. Innovation success was shown to have a partial mediation

effect as a moderator on both market orientation and entrepreneurial orientation to firm performance. Given the lack of any tangible link of interaction orientation on the final goal of firm performance, innovation success was not tested as a moderator for this relationship. With regard to factors of external environment, market turbulence was shown to have a positive effect on all components of strategic orientation, while competitive intensity was just positively related with entrepreneurial orientation only.

The implications of the findings were also outlined in detail. In terms of the implications for theoretical literature, the findings were consistent with previous studies that have argued market and entrepreneurial orientation to have an effect on firm performance. However, there was no evidence to support the effect of interaction orientation, which is a relatively new concept that has only been tested in a study by Ramani and Kumar (2008) and more studies are needed to validate the concept as it seems to be a conceptually and theoretically sound model. The results of the hypotheses were also drawn further to propose practical steps for Malaysian SMEs to improve their performance. It was suggested that SMEs adopt the right marketing techniques and a proactive stance by entrepreneurs as market orientation and entrepreneurial orientation were both found to lead to superior firm performance. While all these different strategic orientations can lead to superior firm performance under conditions of market turbulence, firms focus on entrepreneurial orientation and overlook other two strategic orientations when facing competitive intensity. To conclude, strategic orientation can contribute to firm performance but firms need to know the right combination of factors suited to the right environment to achieve superior firm performance.

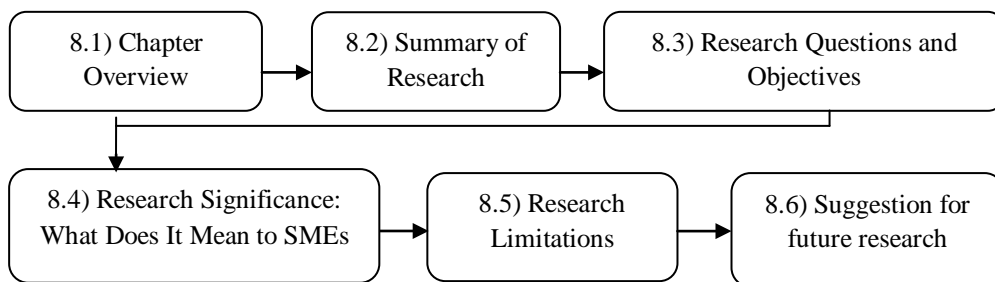
# Chapter 8 CONCLUSION

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## 8.1 Chapter Overview

This chapter reviews the research undertaken in this thesis and attempts to tie the threads together to present a conclusion to the thesis. It revisits all the key stages in this study to present a summary of the overall research. It will explain how the results for hypotheses tested answer the research questions guiding this study. This will be followed by a broader discussion about the significance of what has been achieved in this research and what this means for SMEs. Having highlighted the objectives achieved by the study and their significance, the chapter will also make a note of the limitations in this study and end with some suggestion for future research. Figure 8.1 shows the organisation of the chapter and the order in which the issues are discussed.

**Figure 8.1 Chapter organisation**



## 8.2 Summary of Research

This study began with the research problem and identified the concept of strategic orientation as its focus. A conceptual framework linking strategic orientation with superior firm performance was developed. The conceptualised model for this thesis was composed of three components—the direct effect of each strategic orientation on firm

performance, the mediating effect of innovation success on the relationship between strategic orientation and firm performance, the controlling effect of market turbulence and competitive intensity on strategic orientation components. Appropriate measurement scales were chosen to test the relationships in the conceptual model from a literature review and a survey questionnaire was developed to incorporate all the questions.

The survey questionnaires were collected by a few research assistants across SMEs in all states of Malaysia after a first round of mail out survey questionnaire generated a low response rate. Prior to analysis of the data for hypothesis testing, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) was conducted to determine the validity and reliability of the data and goodness-of-fit of the model. The data was then categorised and analysed using structural equation modelling (SEM) on AMOS software. The findings related to each hypothesis was specified and the rationale for each result was discussed along with their implications for the theory and literature on strategic orientation and the practical operations of Malaysian SMEs.

### **8.3 Research Questions and Research Objectives**

This section will discuss how the research undertaken in this study and its findings relate to the research questions and objectives listed at the outset. This study had proposed three research questions as follows:

- 1) Does the strategic orientation components (market orientation, entrepreneurial orientation and interaction orientation) effect on firm performance?

Research question 1 was answered in the findings of H1, which showed that market orientation and entrepreneurial orientation have a direct and positive effect on firm

performance, however, the effect of interaction orientation on firm performance was found to be insignificant.

- 2) Does the external environment of market turbulence and competitive intensity have a direct effect on strategic orientation?

Research question 2 was answered in H2 where the findings showed that market turbulence has a direct and positive effect on all three constructs of strategic orientation, while competitive intensity was found out to have a direct positive effect on entrepreneurial orientation and a negative effect on market orientation and interaction orientation.

- 3) Does innovation success mediate the relationship between strategic orientation components and firm performance?

Research question 3 was answered in the results for H3. The results showed that innovation success acts as the partial mediator to market orientation → firm performance relationship and entrepreneurial orientation → firm performance relationship. However, since the direct effect of interaction orientation → firm performance relationship is not significant, the mediation effect of innovation success on this relationship could not be tested.

Apart from research questions, this thesis also has taken steps to fulfil the objectives outlined at the outset of the thesis. Briefly, Objective 1 was achieved by synthesising the current literature in strategic orientation for a research model applicable for Malaysian SMEs. Objective 2 to examine the direct and positive effects of strategic orientation on firm performance of Malaysian SMEs in the service industry was accomplished. Objective 3 to examine the mediation effect of innovation success on the

relationship between strategic orientation and firm performance was also achieved. Objective 4 set out to examine the extent to which market turbulence and competitive intensity act as control variables affecting the relationship between strategic orientation and firm performance was achieved. Objective 5 was achieved with the recommendations generated from the findings of the study to improve Malaysian SMEs.

#### **8.4 Research Significance: What Does It Mean For SMEs**

This research was carried out in Malaysia. The study attempted to identify strategies and actions that can help Malaysian SMEs achieve superior performance. While any business owner naturally takes action for the betterment of their business, this research can help Malaysian SMEs hone their practices in these areas and formalise their approach to these orientations. The different constructs of strategic orientation are chosen to reflect one significant aspect of managing business in any SME and taken together all of them combine to create a holistic form of strategic orientation. As a result, this study provides a more comprehensive study of the impact of strategic orientation as whole over existing studies that study it in a fragmented way by concentrating on one dimension of strategic orientation.

As the results show entrepreneurial orientation in a positive relationship with all the other constructs in the model, it has been identified as the most significant strategic orientation. Of course, interaction orientation was proven to have no effect on firm performance for Malaysian SMEs, but even market orientation was found to play a reduced role in conditions of competitive intensity. Therefore, it appears that entrepreneurial orientation plays the most significant role for Malaysian SMEs. Entrepreneurial orientation comes from within the company, from the owner or entrepreneur and top management. The characteristics of proactiveness, innovativeness,

risk-taking, autonomy and competitive aggressiveness of the leadership in the company can help it to capitalise on the opportunities in a challenging business world. A firm with higher market orientation is actually a firm with a good top level manager who has also acquired a high level of entrepreneurial orientation discussed in the last section. Therefore, at a certain point entrepreneurial orientation and market orientation overlap with each other and firms need to have both orientations in order to achieve superior firm performance. It has been argued that entrepreneurial orientation-inspired innovation is more than adaptation or reaction to market trends and it is “*aimed at the rejuvenation, renewal and redefinition of organizations, their market or industries*” (Covin and Miles 1999, p. 59). Market orientation is derived from the organisational culture within a firm directed towards winning over and retaining customers with best marketing practices and as a result it depends extensively on the proactiveness and creativity of the entrepreneur.

Although, interaction orientation was not shown to have any significant effect on firm performance, it still carries some significant merit on its own as a practice and may even have an effect on innovation success by delivering improved and innovative forms of customer service and relationship management. Firms must invest in interaction orientation to the extent that they help maintain good relationships with customers leading to substantive financial gains in terms of good sales.

Innovation success as conceptualised by this thesis as the success of a firm in launching a wholly new product, concept, brand and line extensions or customer service improvements (Baker and Sinkula 2009). As a mediating variable, innovation success was found to exercise a partial effect on the significant strategic orientations of market and entrepreneurial orientation. External environment of market turbulence and

competitive intensity were found to exert influence in some interesting patterns. While market turbulence or changes in customer preference was found to drive up all three strategic orientations, competitive intensity was found to adversely affect market orientation and interaction orientation. This could mean that instead of amplifying strategic orientation, in exceptional circumstances of competitive intensity, firms find it more profitable to reduce strategic orientation in these areas. The positive effect of competitive intensity might sound feasible in the theory, but firms find it too risky to practice market and interaction orientation under conditions of competitive intensity in the real world.

All this suggests that firms must adopt a flexible and varied mix of strategic orientations according to their needs and the external conditions they operate in. As Zhang (2008) suggests, firms must take a discerning approach where they decide the level and type of strategic orientation to adopt according to different circumstances. As Zhang (2008, p. 35) argues, *“it would be naive to suggest that a one-strategy fits all circumstances is suitable for every organization”*.

## **8.5 Limitations of Research**

As with any research there some limitations in this study and this section attempts to identify them. These limitations are as follows:

1) There are limitations about the objectivity of data gathered from survey questionnaire methods. Although this thesis took all the precautionary steps to reduce the possibility of response bias and applied the procedural remedies proposed by Podsakoff et al. (2003), there may still be some bias in the responses generated from the survey.



2) This study focussed on the situation of the service sector SMEs in Malaysia. The specificity of its focus could be considered a positive as well as a limitation. It means that the results from the study are perhaps not generalisable for SMEs in the other sectors in Malaysia. Also, Malaysia is a developing country, where the dimensions of organisational culture and beliefs are localised and distinct from a global business culture. This means that the results derived here in this study may be influenced by specific national and organisational culture dimensions in Malaysia and not applicable to other national or cultural contexts

3) Although the literature suggests that there is global applicability of market orientation and entrepreneurial orientation, the construct of interaction orientation is still in its nascent stage and has not been widely accepted or used. Also, the concept of interaction orientation was coined to capture strategies focussed on customer service in hyper-interactive service-based businesses, so the applicability of such a concept to a less advanced market like Malaysia dominated by traditional customer practices is debatable.

4) The sample of this thesis consisted of owners/managers/ supervisors from service sector SMEs listed in the SME Corp Malaysia website. The extent to which the results of the study can be generalised for other SMEs in the service sector not registered with the website is debatable.

5) Structural equation modelling on AMOS software was used as the statistical tool for this study. Although AMOS is well known for its efficiency, the size of the data set (n=344) may have reduced the power of the statistical test.

6) Most importantly, the current study was based on the owner/entrepreneur's perception of their firm performance relative to their competitors and the degree of

strategic orientation adopted by their firms. Thus, the data obtained was totally based on the owner/entrepreneur's perceptions and the result may have been very different if the data was based on the secondary data recorded for firm performance.

## **8.6 Suggestions for Future Research**

As the last section pointed out there are quite a few limitations in this study and some directions for future research could be derived from within these limitations before progressing onto some more general avenues for future research. As this study based its findings on perceptions of owner/ entrepreneur about strategic orientation, future research in this area should consider a longitudinal study where firms are asked to operationalize certain orientations over a period of time and then the firm performance is measured before and after such a trial period. Such a longitudinal study with diachronic measurement of firm performance will provide more objective as well as substantive data about the actual effect of specific strategic orientations. Future research also should compare the variables (market turbulence and competitive intensity) as moderators with the alternate model (market turbulence and competitive intensity) as the antecedent variable. Another option is a comparative study of SMEs in the service and manufacturing sector that can help to identify and compare the utility of different strategic orientations in these different sectors. This could also provide more general picture of the utility of strategic orientation for the SME sector at large.

Other avenues of future research in the area of strategic orientation and firm performance, relate to some of the inconclusive or contestable findings encountered in the study. As there was no evidence to suggest the significance of interaction orientation to firm performance, more work needs to be done to ascertain the validity of this concept as it has been tested in only one study before this. It is also possible that

market/ entrepreneurial orientation are not compatible with interaction orientation, so a study should focus on the relationship between interaction orientation and firm performance in isolation.

Future studies should also consider the effect of interaction orientation on innovation success. Even if interaction orientation does not directly deliver superior firm performance, it may still lead to innovation success in terms of improved customer and service value. It can also be asked how this result of innovation success from interaction orientation fails to translate itself into the final result of firm performance and actions may be proposed to remedy this.

As the constructs of external environment, competitive intensity and market turbulence, which have only been used as moderating variables before this, were shown to have direct controlling effect in this study, some more studies in the future using such an approach are needed to further support this finding. Interestingly, contrary to the assumption of the conceptual model in this study, competitive intensity was shown have a direct negative effect on market and interaction orientation. This relationship can be explored further in future research to better understand the ramifications. However, overall this research has shown that Malaysian SMEs practising strategic orientation, do reap benefits in the form of improved firm performance and with this the study has achieved the objective that it set at the beginning.

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# **Appendix 1**

## **(Survey)**

## **Part A: Survey Questionnaire (English Version)**

## **Participants Involved in Research**

### **You are invited to participate**

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You are invited to participate in a research project entitled ‘The Relationship between Strategic Orientation and Firm Performance’. This project is being conducted under the supervision of Professor John Breen from the Centre for Tourism and Services Research at Victoria University.

### **Project explanation**

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The aim of this project is to develop a clear understanding of the relationship between strategic activities and superior firm performance among Small and Medium Sized Enterprise (SME) operators in Malaysia.

### **What will I be asked to do?**

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Participants will be asked to respond to a set of questions about their marketing strategies, entrepreneurial capacity, and the individual interaction between the firm and customers. The questionnaire will take around 10 minutes to complete.

### **What will I gain from participating?**

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You will be contributing to the development of an improved understanding of the strategic activities of a firm and their relationships with firm performance.

### **How will the information I give be used?**

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Your information will not be identifiable to specific SMEs, and will only be used in aggregate for statistical purposes.

### **What are the potential risks of participating in this project?**

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There are no risks involved in participating in this project.

### **How will this project be conducted?**

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Data will be collected through the attached questionnaire from publicly available business directory provided by Malaysian SME Info Portal. This data will be analysed to identify the relationships between strategic activities and firm performance.

### **Who is conducting the study?**

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The study is being carried out by Victoria University; The Principal Researcher is Professor John Breen [john.breen@vu.edu.au](mailto:john.breen@vu.edu.au) telephone (03) 9919 4641). Any queries about your participation in this project may be directed to the Principal Researcher listed above. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone (03) 9919 4781.



# SURVEY



**VICTORIA  
UNIVERSITY**

**A NEW  
SCHOOL OF  
THOUGHT**

## FIRM PERFORMANCE AMONG MALAYSIAN SMALL AND MEDIUM ENTERPRISES

This survey is voluntary to participate. All information will be treated in strictest confidence and your participation will remain anonymous

### WHAT IS THIS SURVEY ABOUT?

Small and medium sized enterprises play a significant role in a country's economy. In Malaysia, the establishment of the Ministry of Entrepreneur Development in 1995 clearly shows the importance the government places upon the issue of entrepreneur development and SMEs in general. Therefore, ensuring the survival and high level performance of the Malaysian SMEs is crucial. The research intends to gain insight into factors that contribute to the performance of Malaysian SMEs and to evaluate the usefulness of government incentives for Malaysian SMEs.

### WHO SHOULD FILL IN THIS QUESTIONNAIRE?

The survey is intended to be completed by the owner or CEO of the firm.

### WHAT DO YOU DO?

Most questions simply require you to choose an answer from a list of options and then tick (✓) the answer that corresponds to your choice. In some instances we require you to provide opinions and reasons for your answers.

### FURTHER INFORMATION

For more information, please contact Professor John Breen (Phone: +613 99194641 or email [John.Breen@vu.edu.au](mailto:John.Breen@vu.edu.au)) and Dr. Alexander Josiassen (Phone: +613 99195946 or email [Alexander.Josiassen@vu.edu.au](mailto:Alexander.Josiassen@vu.edu.au)) or WM.Nazdrol WM.Nasir (Mobile: +614 23909290; Australia; +60179658404; Malaysia or email [wmnazdrol.wmnasir@live.vu.edu.au](mailto:wmnazdrol.wmnasir@live.vu.edu.au))

*Respondent ID (for researcher's usage only)*

## QUESTIONNAIRE INSTRUCTIONS

This questionnaire is organised under nine key headings: respondent profile, marketing strategy, customer approach strategy, entrepreneurial skill, innovation level, government incentive, other factors, firm performance, and firm profile

*Confidentiality is assured at ALL times.  
Participation in this research is voluntary.*

### SECTION 1: RESPONDENT PROFILE

Q1. What is your age group?

< 20     20-29     30-39     40-49     50-59     60 above

Q2. What is your gender?

Male     Female

Q3. What is your education level?

Primary school     High school     Degree     Master degree     PhD     Others, please specify\_\_\_\_\_

Q4. What is your race?

Malay     Chinese     Indian     Others, please specify\_\_\_\_\_

Q5. What is your position in the business organization?

Owner     CEO     Others, please specify\_\_\_\_\_

Q6. Do you have any formal training in running this business organization?

Management     Technical     Both     None     Others, please specify\_\_\_\_\_

### SECTION 2: MARKETING STRATEGY

**Please select your level of agreement with the following statement using the scale below, 1 is strongly disagree (SD) and 7 is strongly agree (SA)**

	SD						SA
	1	2	3	4	5	6	7
Q1. We continually monitor customers and competitors to find new ways to improve customer satisfaction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2. We freely communicate information about our successful and unsuccessful customer experiences with our staffs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Q8. This firm encourages customers to share opinions of its product or services with other customers

Q9. This firm encourages customers to participate interactively in designing products and services

Q10. This firm has an excellent idea of what each individual customer has been contributing to its profits

Q11. This firm predicts what each individual customer will contribute to its profit in the future

Q12. This firm computes the revenue generated as a result of every marketing action directed at an individual customer

#### **SECTION 4: ENTREPRENEURIAL SKILL**

**Please select your level of agreement with the following statement using the scale below, where 1 is strongly disagree (SD) and 7 is strongly agree (SA)**

	<b>SD</b>						<b>SA</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Q1. We have launched many new products/services on the market during the last five years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q2. The changes introduced in our product/services are usually important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q3. We usually beat our competitors in developing innovative Actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q4. We usually adopt an aggressive attitude towards our Competitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q5. We are tend to carry out risky projects when they involve profitable opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Q6. When uncertainty is high, we adopt a brave and aggressive attitude to exploit possible opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

## SECTION 5: INNOVATION LEVEL

Please select your level of agreement with the following statement using the scale below, where 1 is low and 7 is high

	LOW			HIGH			
	1	2	3	4	5	6	7
Q1. The rate of new innovation success rate in our firm relative to direct competitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2. The rate of differentiation between your innovations and your direct competitor's innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q3. The degree to which you beat your direct competitors to the market with innovations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q4. The rate of new innovation relative to your direct competitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SECTION 6: GOVERNMENT INCENTIVES

Please select your level of agreement with the following statement using the scale below, where 1 is strongly disagree (SD) and 7 is strongly agree (SA)

	SD				SA		
	1	2	3	4	5	6	7
Q1. The government incentives are important to support the survival and development of the firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2. The government incentives will help the firm to achieved high level performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q3. There are difficulties in assessing government incentives and other forms of financial assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q4. Which incentives are more important for high level performance?

Financial     Non-financial     Both

Q5. How can the government improve the incentives offered to SME firms?

---

## SECTION 7: OTHER FACTORS

Please select your level of agreement with the following statement using the scale below, where 1 is strongly disagree (SD) and 7 is strongly agree (SA)

	SD						SA
	1	2	3	4	5	6	7
Q1. In our kind of business, customer's product preference change quite a bit over time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2. Our customers tend to look for new products all the time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q3. Sometimes our customers are very price-sensitive, but other occasions, price is relatively unimportant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q4. There is demand for our products and services from customers who never bought them before	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q5. New customers tend to have product-related needs that are different from those of our existing customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q6. We cater to many of the same customers that we used to in the past	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q7. Competition in our industry is quite intense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q8. There are many sales promotion campaign in our industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q9. Anything that one competitor can offer, others can match readily	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q10. Price competition is a common practice our industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q11. One hears of a new competitive move almost every day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q12. Our competitors are relatively weak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q13. The number of customers who initiated communications with the firm this year (expressed as a percentage of the total number of customers that the firm caters to) is \_\_\_\_\_% (Enter percentage rounded off to the nearest whole number in the space provided; e.g 10)

**SECTION 8: FIRM PERFORMANCE**

Please select your level of agreement with the following statement using the scale below, 1 is much lower (ML) and 7 is much higher (MH)

	ML							MH	
	1	2	3	4	5	6	7		
Q1. Over the last 3 years, relative to major competitors, our company's overall sales revenue has been.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2. Over the last 3 years, relative to major competitors, our company's overall return on investment has been.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q3. Over the last 3 years, relative to major competitors, our company's overall return on assets has been.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*\*If your company has been operated less than 3 years, please assumed your company's latest performance*

**SECTION 9: FIRM PROFILE**

Q1. How many people has this firm employed? (full time employees)  
 1-5     6-20     21-35     36-50     Over 50 \_\_\_\_\_

Q2. How many years has this firm been in business?  
 < 1     1-5     6-10     11-15     16-20     Over 20

Q2. Where is the location of this firm?  
 KEDAH  KELANTAN  PERLIS  PENANG  PERAK  TERENGGANU  
 SABAH  SARAWAK  PAHANG  LABUAN  MELAKA  NEGERI SEMBILAN  
 JOHOR  PUTRAJAYA  KUALA LUMPUR

Q3. Is your firm a member of any business organization?  
 Yes     No

Q4. What is your firm's industry sub group?

---

**Thank you for your participation in this survey.  
Please return this questionnaire in the enclosed return envelope. Thank you**





## **Part B: Survey Questionnaire (Malay Version)**

## **Maklumat Mengenai Kajian Ini**

### **Anda dijemput untuk menyertai kajian ini**

---

Anda dijemput untuk menyertai kajian yang bertajuk '*The Relationship between Strategic Orientation and Firm Performance*'. Kajian ini dijalankan oleh Profesor John Breen dari *Centre for Tourism and Services Research* di Victoria University.

### **Tujuan Kajian**

---

Tujuan kajian ini adalah untuk memahami tentang hubungkait diantara aktiviti strategic (strategic orientation) dan prestasi syarikat di kalangan Industri Kecil dan Sederhana (IKS) yang terlibat dalam sektor perkhidmatan (*service sector*) di Malaysia.

### **Apakah Yang Anda Perlu Lakukan?**

---

Anda dipohon untuk menjawab soalan kaji selidik terhadap strategi pemasaran, strategi keusahawanan dan juga strategi perkhidmatan pelanggan di syarikat anda. Kaji selidik ini akan mengambil masa selama 10 minit untuk disiapkan.

### **Apakah Sumbangan Anda?**

---

Anda akan menyumbang terhadap perkembangan dalam bidang aktiviti strategic dan kesanya terhadap prestasi syarikat (IKS) yang merupakan antara faktor penting dalam penjana ekonomi negara.

### **Bagaimanakah Maklumat Yang Diberi Akan Digunakan?**

---

Maklumat yang diberikan tidak akan mencerminkan syarikat anda secara terperinci tetapi hanya digunakan untuk kegunaan statistik sahaja.

### **Apakah Risiko Yang Mungkin Terlibat Dalam Penglibatan Kajian Ini?**

---

Tiada sebarang risiko yang terlibat dalam kajian ini

### **Bagaimanakah Projek Ini Dijalankan?**

---

Soalan kaji selidik ini diedarkan kepada syarikat-syarikat (IKS) yang tersenarai dalam laman web SME Info Portal. Data ini akan digunakan untuk mengenalpasti hubungan diantara aktiviti strategic dan prestasi syarikat di Malaysia.

### **Siapakah yang Menguruskan Kajian Ini?**

---

Kajian ini dijalankan oleh Profesor John Breen [john.breen@vu.edu.au](mailto:john.breen@vu.edu.au), telefon (03) 9919 4641) daripada Victoria University, Melbourne, Australia. Sebarang pertanyaan mengenai kajian ini boleh diajukan kepada Profesor John Breen seperti yang tertera

# KAJI SELIDIK



VICTORIA  
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THOUGHT

## PRESTASI SYARIKAT DI KALANGAN INDUSTRI KECIL DAN SEDERHANA (IKS) DI MALAYSIA

### APAKAH TUJUAN KAJI SELIDIK INI?

Industri Kecil dan Sederhana (IKS) memainkan peranan penting dalam ekonomi sesebuah negara. Di Malaysia, penubuhan Kementerian Pembangunan Usahawan pada tahun 1995 dengan jelas menunjukkan adanya usaha-usaha daripada kerajaan dalam memberi penekanan terhadap hal ehwal berkaitan pembangunan usahawan dan IKS. Justeru itu, ia merupakan perkara penting bagi memastikan mutu dan prestasi yang tinggi di kalangan IKS di Malaysia. Kajian ini bertujuan untuk memahami secara mendalam mengenai faktor-faktor yang menyumbang kepada prestasi IKS di Malaysia. Kajian ini juga bertujuan untuk mengenal pasti keberkesanan insentif-insentif yang disediakan oleh kerajaan di kalangan IKS di Malaysia.

### SIAPAKAH YANG SESUAI UNTUK MENYERTAI SOAL SELIDIK INI?

Soal selidik ini adalah untuk disertai oleh pemilik syarikat atau Ketua Pegawai Eksekutif (CEO) syarikat yang berkenaan.

### APAKAH YANG ANDA PERLU LAKUKAN?

Kebanyakan soalan memerlukan anda untuk memilih satu jawapan dari senarai pilihan jawapan dengan menanda (✓) pada pilihan yang bersesuaian dengan anda. Bagi soalan-soalan tertentu, anda diminta untuk memberi pendapat dan alasan bagi jawapan yang dipilih.

### UNTUK MAKLUMAT LANJUT

Untuk maklumat lanjut, sila hubungi Profesor John Breen (Tel: +613 99194641 atau emel ke [John.Breen@vu.edu.au](mailto:John.Breen@vu.edu.au)) serta Dr. Alexander Josiassen (Tel: +613 99195946 atau emel ke [Alexander.Josiassen@vu.edu.au](mailto:Alexander.Josiassen@vu.edu.au)) atau juga WM.Nazdrol WM.Nasir (Tel: +614 23909290; Australia; +60179658404; Malaysia atau emel ke [wmnazdrol.wmnasir@live.vu.edu.au](mailto:wmnazdrol.wmnasir@live.vu.edu.au))

*IDPeserta (untuk kegunaan penyelidik sahaja)*



- Q4. Kami memberi lebih tumpuan terhadap pelanggan kami berbanding tumpuan untuk bersaing dengan pesaing kami.
- Q5. Kami membuat tinjauan di kalangan pengguna mengenai kualiti produk/perkhidmatan kami sekurang-kurangnya setahun sekali.
- Q6. Objektif utama syarikat kami adalah berdasarkan kepuasan pelanggan.
- Q7. Kami mempunyai cara yang sistematik dan teratur dalam mengukur tahap kepuasan pelanggan kami.
- Q8. Kami mempunyai rutin yang tetap dan teratur dalam mengukur perkhidmatan pelanggan yang disediakan.
- Q9. Kami percaya bahawa syarikat ini wujud kerana adanya pelanggan kami yang setia.
- Q10. Maklumat mengenai kepuasan pelanggan akan dimaklumkan kepada setiap bahagian dalam syarikat ini secara berterusan.

### BAHAGIAN 3: STRATEGI PENDEKATAN PELANGGAN

Sila pilih tahap persetujuan anda bagi kenyataan yang berdasarkan skala di bawah; 1 mewakili tahap Tidak Setuju (TS) dan 7 mewakili tahap Sangat Setuju (SS).

- |   | TS                       |                          |                          |                          |                          |                          |                          | SS                       |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|   | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |                          |
| Q1. Kami percaya bahawa setiap pelanggan tidak akan berpuashati dengan produk/perkhidmatan kami jika tiada sebarang pembaruan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q2. Kami sentiasa mengenal pasti dan mendapatkan pelanggan baru secara individu   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q3. Kami percaya bahawa setiap respon pelanggan terhadap strategi pemasaran kami haruslah diberi perhatian yang sewajarnya.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q4. Kami menganalisis setiap transaksi para pelanggan kami bagi meramal transaksi pelanggan tersebut pada masa hadapan.       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q5. Kami mempunyai satu sistem khas dalam merekod setiap transaksi jual-beli dikalangan pelanggan kami.                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q6. Semua pekerja kami yang berurusan dengan pelanggan sentiasa mempunyai akses terhadap maklumat transaksi setiap pelanggan. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q7. Kami menggalakkan para pelanggan untuk berkongsi pendapat tentang produk/ perkhidmatan kami dengan syarikat kami.         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



Q2. Kadar perbezaan di antara inovasi syarikat anda dan inovasi pesaing terdekat anda.

Q3. Kadar syarikat anda mendahului pesaing terdekat dengan inovasi-inovasi baru dalam pasaran.

Q4. Kadar inovasi yang baru jika dibandingkan dengan pesaing terdekat anda.

## BAHAGIAN 6: INSENTIF KERAJAAN

Sila pilih tahap persetujuan anda bagi kenyataan yang berdasarkan skala di bawah; 1 mewakili tahap Tidak Setuju (TS) dan 7 mewakili tahap Sangat Setuju (SS).

TS						SS
1	2	3	4	5	6	7

Q1. Insentif kerajaan sangat penting bagi menyokong syarikat untuk lebih maju dan berdaya saing.

Q2. Insentif kerajaan akan membantu syarikat untuk mencapai tahap prestasi yang lebih tinggi.

Q3. Terdapat kesukaran dalam mendapatkan insentif kerajaan dan lain-lain bentuk bantuan kewangan.

Q4. Insentif yang mana adalah lebih penting untuk tahap prestasi yang tinggi?

Kewangan  Bukan kewangan  Kedua-dua

Q5. Bagaimana kerajaan boleh mempertingkatkan insentif yang ditawarkan kepada syarikat-syarikat IKS?

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## BAHAGIAN 7: FAKTOR-FAKTOR LAIN

Sila pilih tahap persetujuan anda bagi kenyataan yang berdasarkan skala di bawah; 1 mewakili tahap Tidak Setuju (TS) dan 7 mewakili tahap Sangat Setuju (SS).

	TS						SS
	1	2	3	4	5	6	7
Q1. Dalam jenis perniagaan yang kami lakukan, pemilihan produk dikalangan menggunakan berubah pada tempoh-tempoh tertentu.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q2. Pelanggan kami biasanya cenderung untuk mendapatkan produk-produk baru.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q3. Ada juga pelanggan kami sangat teliti dengan harga, tetapi bagi kebanyakannya, harga adalah tidak begitu penting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q4. Terdapat permintaan terhadap produk/ perkhidmatan daripada pelanggan yang belum pernah mencubanya sebelum ini.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q5. Pelanggan baru cenderung mendapatkan produk berdasarkan 'keperluan', berbeza dengan pelanggan yang sedia ada yang ingin mendapatkan produk berdasarkan 'kehendak' mereka.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q6. Kami dapat memenuhi keperluan pelanggan tetap kami seperti yang kami lakukan sejak dahulu lagi.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q7. Persaingan dalam industry ini adalah sangat sengit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q8. Terdapat banyak kempen promosi jualan dalam industri ini.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q9. Jika terdapat idea baru yang ditawarkan dalam industri ini, syarikat-syarikat lain dapat menyaingi dengan capat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q10. Persaingan harga adalah perkara biasa dalam industri ini.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q11. Idea-idea baru dan bernas dalam muncul hamper setiap hari dalam industri ini.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q12. Pesaing-pesaing kami agak lemah.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q13. Jumlah pelanggan yang mempunyai komunikasi dengan syarikat pada tahun ini (mewakili jumlah keseluruhan pelanggan syarikat) adalah _____% (Masukkan peratus yang telah dibundarkan kepada nombor bulat di ruang yang disediakan; cth. 10), sila anggarkan							



## BAHAGIAN 8: PRESTASI SYARIKAT

Sila pilih tahap persetujuan anda bagi kenyataan yang berdasarkan skala di bawah; 1 mewakili tahap Paling Rendah (PR) dan 7 mewakili tahap Paling Tinggi (PT).

	PR							PT
	1	2	3	4	5	6	7	
Q1. Sepanjang 3 tahun yang lalu, jika dibandingkan dengan pesaing utama, hasil jualan keseluruhan syarikat adalah...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Q2. Sepanjang 3 tahun yang lalu, dibandingkan dengan pesaing utama, keuntungan atas pelaburan syarikat kami adalah...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Q3. Sepanjang 3 tahun yang lalu, dibandingkan dengan pesaing utama, keuntungan atas aset syarikat kami adalah...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

\*Jika syarikat anda telah beroperasi kurang dari 3 tahun, sila anggap prestasi syarikat adalah yang terkini

## BAHAGIAN J: PROFIL SYARIKAT

Q1. Dimanakah lokasi syarikat ini?

- KEDAH  KELANTAN  PERLIS  PENANG  PERAK  TERENGGANU  
 SABAH  SARAWAK  PAHANG  LABUAN  MELAKA  NEGERI SEMBILAN  
 JOHOR  PUTRAJAYA  KUALA LUMPUR

Q2. Berapakah jumlah pekerja sepenuh masa di syarikat ini sekarang?

- 1-5 org.  6-20 org.  21-35 org.  36-50 org.  Melebihi 50 org. (silanyatakan) \_\_\_\_\_

Q3. Berapa lamakah syarikat ini telah beroperasi?

- < 1th.  1-5th.  6-10th.  11-15th.  16-20th.  Melebihi 20th. (silanyatakan) \_\_\_\_\_

Q4. Adakah syarikat anda berdaftar di bawah mana-mana persatuan perniagaan? (cth. SME Corp., MARA)

- Ya  Tidak

Q5. Jika ya, silan yatakan

- SME Corp.  MARA  Lain-lair (sila nyatakan) \_\_\_\_\_

**Terima kasih kerana menyertai kaji selidik ini.  
Sila kembalikan borang soal selidik ini di dalam sampul surat balas yang disertakan.**



## **Part C: Coding Sheet**

Code No.	Ques. No.	Description	Values	Measure
QB1	Sec.B.q1	Continuously monitor customers and competitors	7-point	Scale
QB2	Sec.B.q2	Freely communicate information about our successful and unsuccessful customer experience	7-point	Scale
QB3	Sec.B.q3	Strategy for competitive advantage is based on our understanding of customer's need	7-point	Scale
QB4	Sec.B.q4	We are more customer focused than our competitors	7-point	Scale
QB5	Sec.B.q5	Conduct survey regularly to assess the quality of the products and services	7-point	Scale
QB6	Sec.B.q6	Business objectives are driven primarily by customer satisfaction	7-point	Scale
QB7	Sec.B.q7	Measure customer satisfaction systematically and frequently	7-point	Scale
QB8	Sec.B.q8	Have routine or regular measures of customer service	7-point	Scale
QB9	Sec.B.q9	This business exists primarily to serve customers	7-point	Scale
QB10	Sec.B.q10	Data on customer satisfaction are disseminated at all levels in this business	7-point	Scale
QC1	Sec.C.q1	Customer cannot be satisfied with the same set of products and services	7-point	Scale
QC2	Sec.C.q2	Consciously seeks to identify and acquire new customers individually	7-point	Scale
QC3	Sec.C.q3	Customers reactions to marketing action should be observed at the individual level	7-point	Scale
QC4	Sec.C.q4	Analyses past customer transactions at the individual level to predict future transaction	7-point	Scale
QC5	Sec.C.q5	Firm has systems in place that record each customer's transaction	7-point	Scale
QC6	Sec.C.q7	Staff have access to information about the transaction of individual customers	7-point	Scale
QC7	Sec.C.q8	Firm encourage customers to give feedback about its product and services	7-point	Scale
QC8	Sec.C.q9	Firm encourage customers to share opinions of its product and services	7-point	Scale
QC9	Sec.C.q10	Firm encourage customers to participate interactively in designing product and services	7-point	Scale
QC10	Sec.C.q11	Firm has excellent idea of the contribution of each customers	7-point	Scale
QC11	Sec.C.q12	Firms can predicts the contribution of each customers	7-point	Scale
QC12	Sec.C.q13	Firm computes the revenue generated at an individual customers	7-point	Scale
QD1	Sec.D.q1	Launched many new products/services	7-point	Scale
QD2	Sec.D.q2	The changes introduced in the product are usually important	7-point	Scale
QD3	Sec.D.q3	Usually beat the competitors in developing innovative actions	7-point	Scale
QD4	Sec.D.q4	Usually adopt an aggressive attitude towards the competitors	7-point	Scale
QD5	Sec.D.q5	Tend to carry out risky projects when involve profitable profits	7-point	Scale
QD6	Sec.D.q6	When uncertainty is high, we adopt a brave and aggressive attitude	7-point	Scale
QE1	Sec.E.q1	The rate of new innovation success relative to direct competitors	7-point	Scale

QE2	Sec.E.q2	The rate of differentiation between your innovation and your competitor's direction	7-point	Scale
QE3	Sec.E.q3	The degree to which you beat your direct competitors to the market with innovations	7-point	Scale
QE4	Sec.E.q4	The rate of new innovation relative to your direct competitors	7-point	Scale
QF1	Sec.F.q1	The government incentives are important to support the survival and development of the firm	7-point	Scale
QF2	Sec.F.q2	The government incentives will help the firm in achieving high level performance	7-point	Scale
QF3	Sec.F.q3	There are difficulties in assessing government incentives	7-point	Scale
QF4	Sec.F.q4	Which incentives are more important for high-level performance	3-point	Ordinal
QG1	Sec.G.q1	Customer's product preference change quite a bit over time	7-point	Scale
QG2	Sec.G.q2	Customers tend to look for new products all the time	7-point	Scale
QG3	Sec.G.q3	Customers are very price-sensitive, but other occasions, price is relatively unimportant	7-point	Scale
QG4	Sec.G.q4	There is demand for our products and services from customers who never brought them	7-point	Scale
QG5	Sec.G.q5	New customers tend to have product-related needs that are different from our existing customers	7-point	Scale
QG6	Sec.G.q6	Cater to many of the same customers that we used to in the past	7-point	Scale
QG7	Sec.G.q7	Competition in our industry is quite intense	7-point	Scale
QG8	Sec.G.q8	There are many sales promotion campaign in our industry	7-point	Scale
QG9	Sec.G.q9	Anything that one competitor can offer, others can match readily	7-point	Scale
QG10	Sec.G.q10	Price competition is a common practice in our industry	7-point	Scale
QG11	Sec.G.q11	One hears of a new competitive move almost every day	7-point	Scale
QG12	Sec.G.q12	Our competitors are relatively weak	7-point	Scale
QH1	Sec.H.q1	The number of customers who initiated communications with the firm this year	10-point	Ordinal
QI1	Sec.I.q1	Over the last 3 years, relative to major competitors, our company's overall sales revenue has been...	7-point	Scale
QI2	Sec.I.q2	Over the last 3 years, relative to major competitors, our company's overall return on investment has been...	7-point	Scale
QI3	Sec.I.q3	Over the last 3 years, relative to major competitors, our company's overall return on assets has been...	7-point	Scale

*\*Section 6 (Government Incentives) and Section 7, Question 13 was not included in the analysis due to the revision of conceptual framework.*

## **Part D: 20 Items MARKOR Scale**

1.	In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.
2.	In this business unit, we do a lot of in-house market research.
3.	We are slow to detect changes in our customer's product preferences. (R)
4.	We poll end users at least once a year to assess the quality of our products and services
5.	We are slow to detect fundamental shifts in our industry (e.g. competition, technology, regulation)
6.	We periodically review the likely effect of changes in our business environment (e.g. regulation) on customers.
7.	We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
8.	Marketing personnel in our business unit spend time discussing customers future needs with other functional departments.
9.	When something important happens to a major customer or market, the whole business unit knows about it in a short period.
10	Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
11.	When one department finds out something important about competitors, it is slow to alert other departments. (R)
12	It takes us forever to decide how to respond to our competitors' price changes. (R)
13	For one reason or another we tend to ignore changes in our customers' product or service needs. (R)
14	We periodically review our product development effort to ensure that they are in line with what customers want.
15	Several departments get together periodically to plan a response to change taking place in our business environment.
16	If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.
17	The activities of the different departments in this business unit are well coordinated.
18	Customer complaints fall on deaf ears in this business unit. (R)
19	Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. (R)
20	When we find customers would like us to modify a product or service, the departments involved make concerted efforts to do so.

Source: Kohli et al. (1993)

# **Appendix 2**

## **(Analysis)**



## **Part A: Exploratory Factor Analysis**

## Exploratory Factor Analysis Output

This thesis has conducted an exploratory factor analysis (EFA) in order to make sure that the items are tapping into the same construct. This thesis follows Coakes and Steed (1999) in determining the significance of factor analysis such as 1) Kaiser-Meyer-Olkin measure of sampling adequacy (KMO-MSA), 2) Communalities, 3) Total variance explained, 4) Scree plotting, and 5) Components matrix. The EFA was conducted on the entire construct in this thesis i.e. market orientation, entrepreneurial orientation, interaction orientation, market turbulence, competitive intensity, innovation success and firm performance. Table 5.3 shows the summary of exploratory factor analysis results which highlight the construct of interaction orientation. The original construct of interaction orientation consist of four dimensions but the EFA result shows that interaction orientation consist of two dimensions instead of four dimensions. The detailed result of EFA is reported in this section including the EFA result of interaction orientation.

### A. Market Orientation Construct

#### *Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA)*

KMO was greater than 0.6, and Bartlett's Test was significant. Consequently, factorability was inferred as shown in Table A1.

**Table A1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.932
Bartlett's Test of Sphericity	Approx. Chi-Square	2217.287
	Df	45
	Sig.	.000

#### *Communalities*

There were no exceptions, as all variables scored above the threshold of 0.5. The criterion for communality was fulfilled as shown in Table A2.

**Table A2: Communalities**

Indicator	Initial	Extraction
SMEAN(QB1_MONITOR)	1.000	.755
SMEAN(QB2_EXPERIENCE)	1.000	.762
SMEAN(QB3_UNDERSTANDING)	1.000	.748
SMEAN(QB4_FOCUS)	1.000	.791
SMEAN(QB5_SURVEY)	1.000	.547
SMEAN(QB6_CUSTOMER_SATISFACTION)	1.000	.712

SMEAN(QB7_SYSTEMATIC)	1.000	.670
SMEAN(QB8_ROUTINE)	1.000	.700
SMEAN(QB9_LOYALTY)	1.000	.676
SMEAN(QB10_DATA)	1.000	.654

*Total Variance Explained*

One factor had an Eigenvalue above 1.0 and this explained by 70.014% of the variance as shown in Table A3

**Table A3: Total Variance Explained**

Component	Total	% of Variance	Cumulative %
1	7.014	70.140	70.140

*Scree Plotting*

Factor 1 with an Eigenvalue of 7.014; explained 70.140% of the variance.

*Component Matrix*

As ten (10) pure indicators with loadings of more than 0.3 in one factor were found in Table A4, rotation was not necessary.

**Table A4: Component Matrix**

Indicator	Component
QB1_MONITOR)	.869
QB2_EXPERIENCE)	.873
QB3_UNDERSTANDING)	.865
QB4_FOCUS)	.889
QB5_SURVEY)	.739
SMEAN(QB6_CUSTOMER_SATISFACTION)	.844
SMEAN(QB7_SYSTEMATIC)	.818
SMEAN(QB8_ROUTINE)	.837
SMEAN(QB9_LOYALTY)	.822
SMEAN(QB10_DATA)	.808

**B. Entrepreneurial Orientation Construct**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA)

KMO was greater than 0.6, and Bartlett's Test was significant. Consequently, factorability was inferred as shown in Table B1.

**Table B1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.835
Bartlett's Test of Sphericity	Approx. Chi-Square	1250.762
	Df	15
	Sig.	.000

Communalities

There were no exceptions, as all variables scored above the threshold of 0.5. The criterion for communality was fulfilled as shown in Table B2.

**Table B2: Communalities**

Indicator	Initial	Extraction
QD1_NEW_PRODUCT	1.000	.624
QD2_IMPROVEMENT	1.000	.592
QD3_INNOVATION_ACTION	1.000	.724
QD4_AGGRESSIVE	1.000	.756
QD5_RISK_PROFITABILITY	1.000	.790
QD6_RISK_OPPORTUNITY	1.000	.783

Total Variance Explained

One factor had an Eigenvalue above 1.0 and this explained by 70.014% of the variance as shown in Table B3

**Table B3: Total Variance Explained**

Component	Total	% of Variance	Cumulative %
1	4.269	71.151	71.151

Scree Plotting

Factor 1 with an Eigenvalue of 4.269; explained 71.151% of the variance.

Component Matrix

As six (6) pure indicators with loadings of more than 0.3 in one factor were found in Table B4, rotation was not necessary.

**Table B4: Component Matrix**

Indicator	Component
QD1_NEW_PRODUCT	.790
QD2_IMPROVEMENT	.769
QD3_INNOVATION_ACTION	.851
QD4_AGGRESIVE	.869
QD5_RISK_PROFITABILITY	.889
QD6_RISK_OPPORTUNITY	.885

### C. Interaction Orientation Construct

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA)

KMO was greater than 0.6, and Bartlett's Test was significant. Consequently, factorability was inferred as shown in Table C1.

**Table C1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	2019.617
	Df	66
	Sig.	.000

Communalities

There were no exceptions, as all variables scored above the threshold of 0.5. The criterion for communality was fulfilled as shown in Table C2.

**Table C2: Communalities**

Indicator	Initial	Extraction
QC1_SAME_PRODUCT	1.000	.515
QC2_INDIVIDUAL_CUSTOMER	1.000	.664
QC3_CUSTOMER_REACTION	1.000	.638
QC4_ANALYSIS	1.000	.725
QC5_SYSTEM	1.000	.841

QC6_ACCESS	1.000	.807
QC7_FEEDBACK	1.000	.570
QC8_CUSTOMER_SHARING	1.000	.610
QC9_CUSTOMER_PARTICIPATION	1.000	.701
QC10_IDEA	1.000	.737
QC11_PREDICT	1.000	.741
QC12_COMPUTE	1.000	.647

Total Variance Explained

Two factors had an Eigenvalue above 1.0 and this explained by 57.826% and 10.467% of the variance as shown in Table C3

**Table C3: Total Variance Explained**

Component	Total	% of Variance	Cumulative %
1	6.939	57.826	57.826
2	1.256	10.467	68.292

Scree Plotting

Factor 1 with an Eigenvalue of 6.939; explained 57.826% of the variance and Factor 2 with an Eigenvalue of 10.467%.

Component Matrix

Nine (9) pure indicators with loadings of more than 0.3 were found in factor 1 and three (3) pure indicators with loadings of more than 0.3 were found in factor 2 after the rotation was applied. Since the original construct of interaction orientation supposed to be four dimensions, this thesis has to further verified the interaction orientation construct using the preliminary CFA analysis (refer to Section 5.5.2.1).

**Table C4: Rotated Component Matrix**

Indicator	Component	
	1	2
QC1_SAME_PRODUCT	<b>.703</b>	.145
QC2_INDIVIDUAL_CUSTOMER	<b>.700</b>	.416
QC3_CUSTOMER_REACTION	<b>.700</b>	.384
QC4_ANALYSIS	.510	<b>.682</b>
QC5_SYSTEM	.235	<b>.887</b>
QC6_ACCESS	.165	<b>.883</b>
QC7_FEEDBACK	<b>.663</b>	.362

QC8_CUSTOMER_SHARING	<b>.769</b>	.138
QC9_CUSTOMER_PARTICIPATION	<b>.813</b>	.197
QC10_IDEA	<b>.819</b>	.256
QC11_PREDICT	<b>.803</b>	.310
QC12_COMPUTE	<b>-.764</b>	-.252

#### **D. Market Turbulence Orientation Construct**

##### Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA)

KMO was greater than 0.6, and Bartlett's Test was significant. Consequently, factorability was inferred as shown in Table D1.

**Table D1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.878
Bartlett's Test of Sphericity	Approx. Chi-Square	887.290
	Df	15
	Sig.	.000

##### Communalities

There were no exceptions, as all variables scored above the threshold of 0.5. The criterion for communality was fulfilled as shown in Table D2.

**Table D2: Communalities**

Indicator	Initial	Extraction
QG1_CUSTOMER_PREFERENCE	1.000	.624
QG2_NEW_PRODUCT	1.000	.638
QG3_PRICE	1.000	.716
QG4_DEMAND	1.000	.726
QG5_PRODUCT_NEEDS	1.000	.732
QG6_SATISFY_CUSTOMER	1.000	.666

##### Total Variance Explained

One factor had an Eigenvalue above 1.0 and this explained by 70.014% of the variance as shown in Table D3

**Table D3: Total Variance Explained**

Component	Total	% of Variance	Cumulative %
1	4.103	68.386	68.386

Scree Plotting

Factor 1 with an Eigenvalue of 4.103; explained 68.386% of the variance.

Component Matrix

As six (6) pure indicators with loadings of more than 0.3 in one factor were found in Table D4, rotation was not necessary.

**Table D4: Component Matrix**

Indicator	Component
	1
QG1_CUSTOMER_PREFERENCE	.790
QG2_NEW_PRODUCT	.799
QG3_PRICE	.846
QG4_DEMAND	.852
QG5_PRODUCT_NEEDS	.856
QG6_SATISFY_CUSTOMER	.816

**E. Competitive Intensity Construct**Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA)

KMO was greater than 0.6, and Bartlett's Test was significant. Consequently, factorability was inferred as shown in Table E1.

**Table E1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.818
Bartlett's Test of Sphericity	Approx. Chi-Square	541.638
	Df	10
	Sig.	.000

Communalities



There were no exceptions, as all variables scored above the threshold of 0.5. The criterion for communality was fulfilled as shown in Table E2.

**Table E2: Communalities**

Indicator	Initial	Extraction
QG7_COMPETITION	1.000	.726
QG8_PROMOTION	1.000	.779
QG9_IDEA_CHANCE	1.000	.673
QG10_PRICE_COMPETITION	1.000	.472
QG11_COMPETITIVE_MOVE	1.000	.522

Total Variance Explained

One factor had an Eigenvalue above 1.0 and this explained by 63.45% of the variance as shown in Table E3

**Table E3: Total Variance Explained**

Component	Total	% of Variance	Cumulative %
1	4.103	63.45	63.45

Scree Plotting

Factor 1 with an Eigenvalue of 4.103; explained 63.45% of the variance.

Component Matrix

As five (5) pure indicators with loadings of more than 0.3 in one factor were found in Table E4, rotation was not necessary.

**Table E4: Component Matrix**

Indicator	Component
	1
QG7_COMPETITION	.852
QG8_PROMOTION	.882
QG9_IDEA_CHANCE	.821
QG10_PRICE_COMPETITION	.687
QG11_COMPETITIVE_MOVE	.723

**F. Innovation Success Construct**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA)

KMO was greater than 0.6, and Bartlett's Test was significant. Consequently, factorability was inferred as shown in Table F1.

**Table F1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843
Bartlett's Test of Sphericity	Approx. Chi-Square	880.156
	Df	6
	Sig.	.000

Communalities

There were no exceptions, as all variables scored above the threshold of 0.5. The criterion for communality was fulfilled as shown in Table F2.

**Table F2: Communalities**

Indicator	Initial	Extraction
QE1_INNOVATION_SUCCESS	1.000	.807
QE2_INNOVATION_RATE	1.000	.869
QE3_INNOVATION_COMPETITOR	1.000	.857
QE4_INNOVATION_NEW	1.000	.867

Total Variance Explained

One factor had an Eigenvalue above 1.0 and this explained by 85.0% of the variance as shown in Table F3

**Table F3: Total Variance Explained**

Component	Total	% of Variance	Cumulative %
1	3.400	85.00	85.00

Scree Plotting

Factor 1 with an Eigenvalue of 3.4; explained 85.00% of the variance.

Component Matrix

As five (4) pure indicators with loadings of more than 0.3 in one factor were found in Table F4, rotation was not necessary.

**Table F4: Component Matrix**

Indicator	Component
	1
QE1_INNOVATION_SUCCESS	.899
QE2_INNOVATION_RATE	.932
QE3_INNOVATION_COMPETITOR	.926
QE4_INNOVATION_NEW	.931

**G. Firm Performance Construct***Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA)*

KMO was greater than 0.6, and Bartlett's Test was significant. Consequently, factorability was inferred as shown in Table G1.

**Table G1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.768
Bartlett's Test of Sphericity	Approx. Chi-Square	596.256
	Df	3
	Sig.	.000

*Communalities*

There were no exceptions, as all variables scored above the threshold of 0.5. The criterion for communality was fulfilled as shown in Table G2.

**Table G2: Communalities**

Indicator	Initial	Extraction
QI1_PERFORMANCE_SALES_REVENUE	1.000	.891
QI2_PERFORMANCE_RETURN_INVEST	1.000	.882
QI3_PERFORMANCE_RETURN_ASSETS	1.000	.879

*Total Variance Explained*

One factor had an Eigenvalue above 1.0 and this explained by 88.394% of the variance as shown in Table G3

**Table G3: Total Variance Explained**

Component	Total	% of Variance	Cumulative %
1	2.652	88.394	88.394

Scree Plotting

Factor 1 with an Eigenvalue of 2.652; explained 88.394% of the variance.

Component Matrix

As five (3) pure indicators with loadings of more than 0.3 in one factor were found in Table F4, rotation was not necessary.

**Table F4: Component Matrix**

Indicator	Component
	1
QI1_PERFORMANCE_SALES_REVENUE	.944
QI2_PERFORMANCE_RETURN_INVEST	.939
QI3_PERFORMANCE_RETURN_ASSETS	.937

## **Part B: Confirmatory Factor Analysis**

The process of CFA involves a few steps. The steps are discussed as follows;

Step1: Preliminary CFA for INTOR construct

Prior to CFA, this study has conducted preliminary CFA for INTOR construct as a result of EFA (refer to Section 5.5.2.1). The assessment of goodness of fit is discussed in Section 4.10.3.1 and model re-specification is discussed as Section 5.5.21. Briefly, the goodness of fit is summarised as Table 2.1B.

**Table 2.1B: Summary of Fit Statistics**

Name	Abbreviation	Levels-Good fit	Notes
Chi Square	$\chi^2$	P < 0.05	Joreskog (1969)
Normed Chi Square	$\chi^2/df$	1.0 < $\chi^2/df$ < 3.0	Carmines and McIver (1981)
Standard Root Mean Square Residual	SRMR	SRMR < 0.08	Hu and Bentler (1995)
Root Mean Square Error of Approximation	RMSEA	RMSEA < 0.08	Browne and Cudeck (1993)
Tucker Lewis Index	TLI	TLI > 0.95	Bentler (1992)
Comparative Fit Index	CFI	CFI >	Bentler (1992)

The model re-specification is summarised as follows;

- 1) The Modification Indices (MI) is examined. MI is the degree of chi-square is expected to decrease if a particular parameter is set free and the model is re-estimated. As the result, it is necessary to delete or correlate the items with the largest MI followed by the second largest and so on in order to get a fit chi-square. However, before withdraw the item with largest MI; this thesis checked the standardised residual.
- 2) Standardised residual: large positive residual indicates the degree of model underestimation of covariance between two variables while large negative residual indicates the degree of model overestimation between two variables. In case of problematic item identified, this thesis also follows Holmes-Smith (2001) suggests deleting items that are not contributing to the model. Deleting the items also will increase the model parsimony (Holmes-Smith 2001).

As a result, INTOR construct had 5 iterations and removed 6 items from the original construct. The model was found to fit well ( $\chi^2/df = 1.251$ , RMSEA = 0.027, SRMR = 0.0161, TLI = 0.981, CFI = 0.991). Each of the iteration was discussed in Table 5.5: The model of INTOR construct re-specification summary.

Step 2: CFA for the whole model

After the completion of Step 1, this study proceeds with the CFA for the whole strategic orientation model. At all stages the model re-specification as summarised above and the fit indices in Table 2.1B was followed. Next, the output of AMOS software is presented and discussed.

FIGURE 2B: CONFIRMATORY FACTOR ANALYSIS (FIT MODEL)

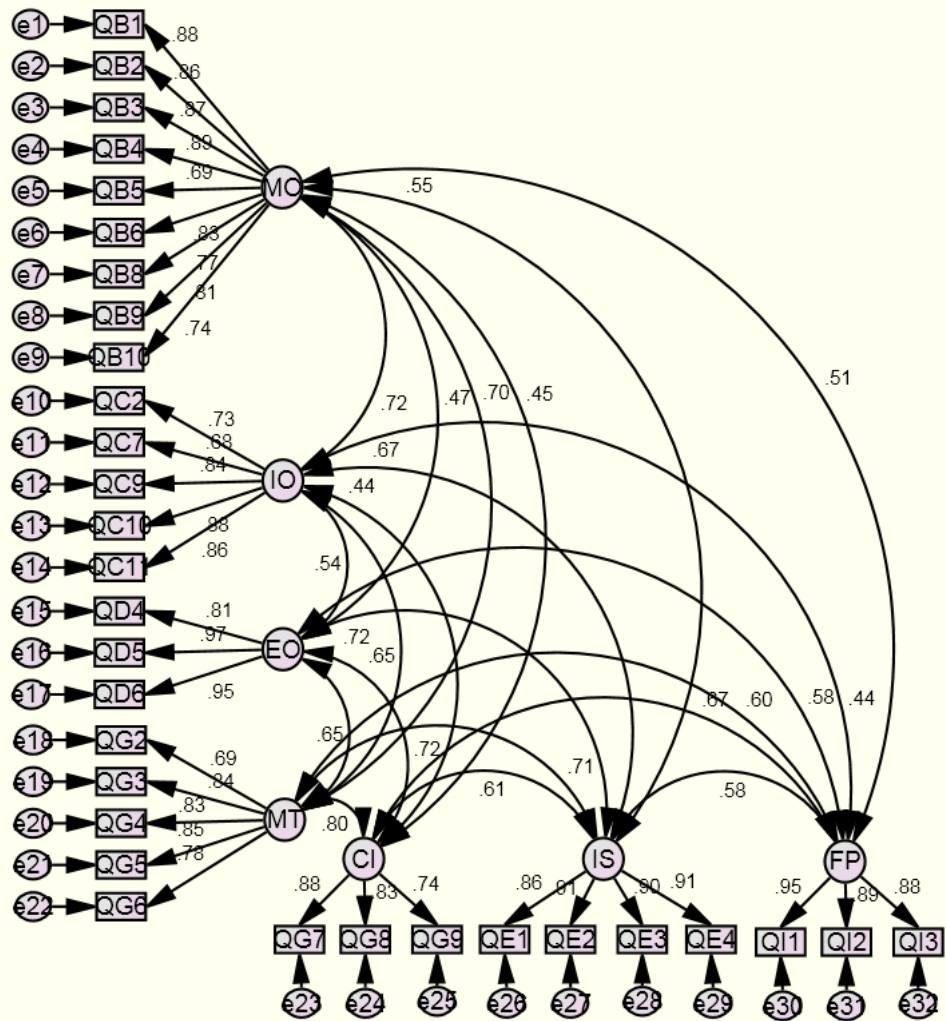


Figure 2B shows the best-fit CFA model which retained 32 items. The best-fit CFA retained all items for interaction orientation (IO) (after the adjustment in Step 1), innovation success (IS) and firm performance (FP). Table 6.7 (Chapter 6) summarised 7 iterations that has been made prior achieving the best-fit model. The initial model failed to provide a good fit ( $\chi^2/df = 2.820$ , RMSEA = 0.087, SRMR = 0.0585, TLI = 0.846, CFI = 0.859). After all the 7 iterations, the AMOS outputs produce the results as follows;

## CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	85	946.809	443	<b>.000</b>	<b>2.137</b>
Saturated model	528	.000	0		
Independence model	32	7625.451	496	.000	15.374

## Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.876	.861	.930	<b>.921</b>	<b>.929</b>
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

## RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	<b>.069</b>	.063	.075	.000
Independence model	.246	.241	.251	.000

## Standardized RMR = .0551

The result from the AMOS software output shows that all fit-indices above are fulfilled the levels of good fit in Table 2.1B. The significance of best-fit CFA model is also reflected by the regression weight, the standardised regression weight and the square multiple correlations as shown in Table 2.2B below. The standardised estimates and multiple square correlations more than 0.5 for every item, credit ratio (C.R.) more than +/- 1.96 and p-value is significant at 0.001 levels (two-tailed) indicate the level of significance (Hair et al. 2006).

**Table 2.2B: Regression Weight, Standardised Regression Weight**

			Estimate	Standardised Estimates	S.E.	C.R.	Multiple Square Correlation	P
QB9_LOYALTY	←	Market Orientation	1.097	.811	.084	13.037	.657	***
QB8_ROUTINE	←	Market Orientation	.972	.775	.078	12.389	.600	***
QB6_CUSTOMER SATISFACTION	←	Market Orientation	1.058	.834	.079	13.466	.696	***
QB5_SURVEY	←	Market Orientation	.906	.694	.083	10.961	.481	***
QB4_FOCUS	←	Market Orientation	1.263	.894	.087	14.591	.800	***
QB3_UNDERSTANDING	←	Market Orientation	1.124	.873	.079	14.194	.762	***
QB2_EXPERIENCE	←	Market Orientation	1.070	.864	.076	14.025	.747	***
QB1_MONITOR	←	Market Orientation	1.100	.875	.077	14.234	.766	***
QC11_PREDICT	←	Interaction Orientation	1.000	.865			.748	

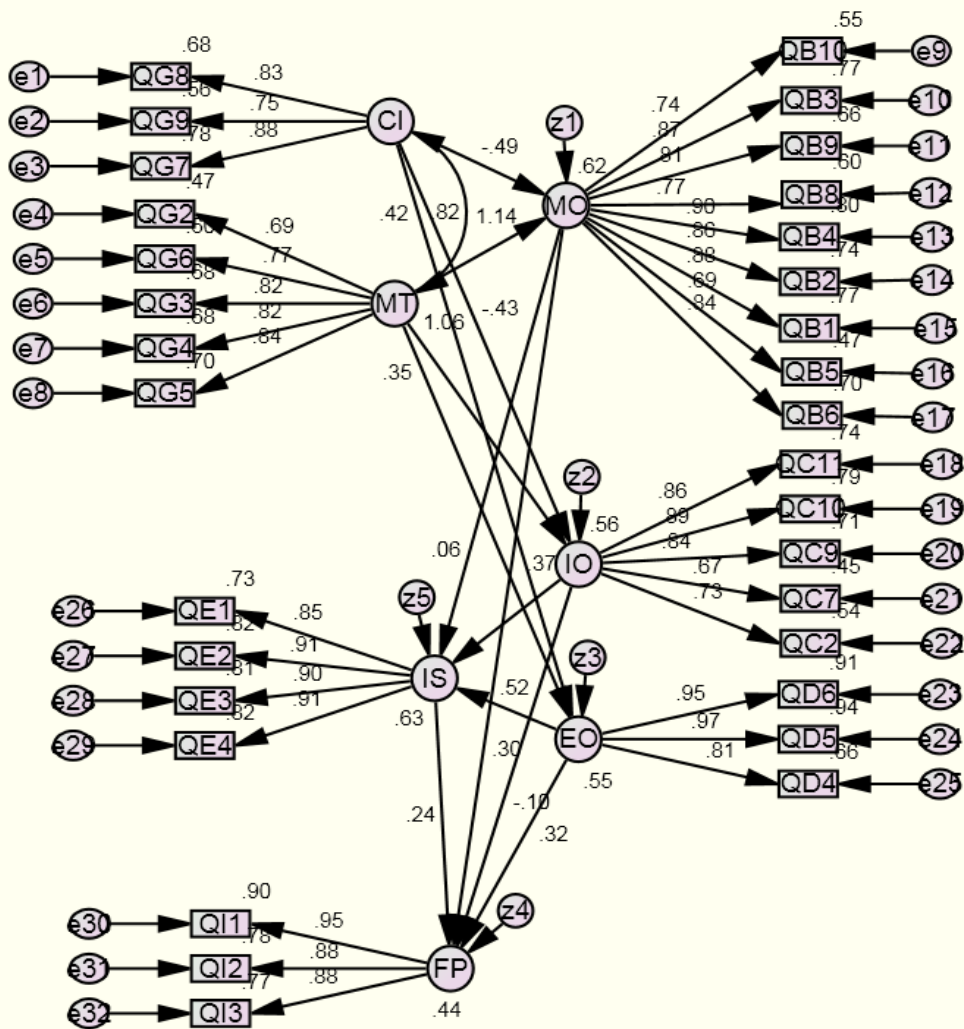


			Estimate	Standardised Estimates	S.E.	C.R.	Multiple Square Correlation	P
QC10_IDEA	←	Interaction Orientation	1.018	.879	.057	17.986	.773	***
QC9_CUSTOMER_PARTICIPATION	←	Interaction Orientation	1.006	.842	.060	16.681	.709	***
QC7_FEEDBACK	←	Interaction Orientation	.802	.682	.067	12.012	.464	***
QC2_INDIVIDUAL_CUSTOMER	←	Interaction Orientation	.825	.734	.062	13.372	.538	***
QD6_RISK_OPPORTUNITY	←	Entrepreneurial Orientation	1.000	.953			.908	
QD5_RISK_PROFITABILITY	←	Entrepreneurial Orientation	1.022	.970	.030	33.750	.941	***
QD4_AGGRESIVE	←	Entrepreneurial Orientation	.841	.813	.044	19.223	.662	***
QG6_SATISFY_CUSTOMER	←	Market Turbulence	1.000	.775			.601	
QG5_PRODUCT_NEEDS	←	Market Turbulence	1.131	.848	.079	14.254	.718	***
QG4_DEMAND	←	Market Turbulence	1.094	.835	.078	13.980	.696	***
QG3_PRICE	←	Market Turbulence	1.092	.841	.077	14.119	.708	***
QG2_NEW_PRODUCT	←	Market Turbulence	.958	.694	.086	11.178	.481	***
QB10_DATA	←	Market Orientation	1.000	.743			.552	
QG8_PROMOTION	←	Competitive Intensity	1.307	.832	.102	12.845	.693	***
QG9_IDEA_CHANCE	←	Competitive Intensity	1.000	.745			.554	
QG7_COMPETITION	←	Competitive Intensity	1.395	.884	.102	13.611	.782	***
QE2_INNOVATION_RATE	←	Innovation Success	1.030	.908	.046	22.283	.825	***
QE3_INNOVATION_COMPETITOR	←	Innovation Success	1.000	.905			.818	
QE1_INNOVATION_SUCCESS	←	Innovation Success	1.006	.856	.052	19.336	.733	***
QE4_INNOVATION_NEW	←	Innovation Success	1.028	.910	.046	22.378	.828	***
QI2_PERFORMANCE_RETURN_INVESTMENT	←	Firm Performance	1.039	.888	.053	19.666	.788	***
QI3_PERFORMANCE_RETURN_ASSETS	←	Firm Performance	1.000	.881			.775	
QI1_PERFORMANCE_SALES_REVENUE	←	Firm Performance	1.083	.948	.049	22.172	.899	***

## **Part C: Structural Equation Modelling**

This study proceeds with SEM (structural model) after the measurement model (CFA) satisfy all the fit indices. The structural model comes after the measurement model where the convenience arrows are being replaced with one-way arrows, indicating the direct relationship among variables (Holmes-Smith 2001). Section 6.7 (Chapter 6) discussed the SEM and the assessment of the structural model. No model re-specification was necessary for the structural model as all indices show the required level of significance as presented in Table 2.1B above. Figure 2C shows the AMOS output for the structural model. The simplified AMOS output for the structural model is shown in Figure 6.3 (Chapter 6) and also attached below.

FIGURE 2C: STRUCTURAL EQUATION MODELING



The AMOS output of structural model is shown below;

**CMIN**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	78	1030.733	450	<b>.000</b>	<b>2.291</b>
Saturated model	528	.000	0		
Independence model	32	7625.451	496	.000	15.374

**Baseline Comparisons**

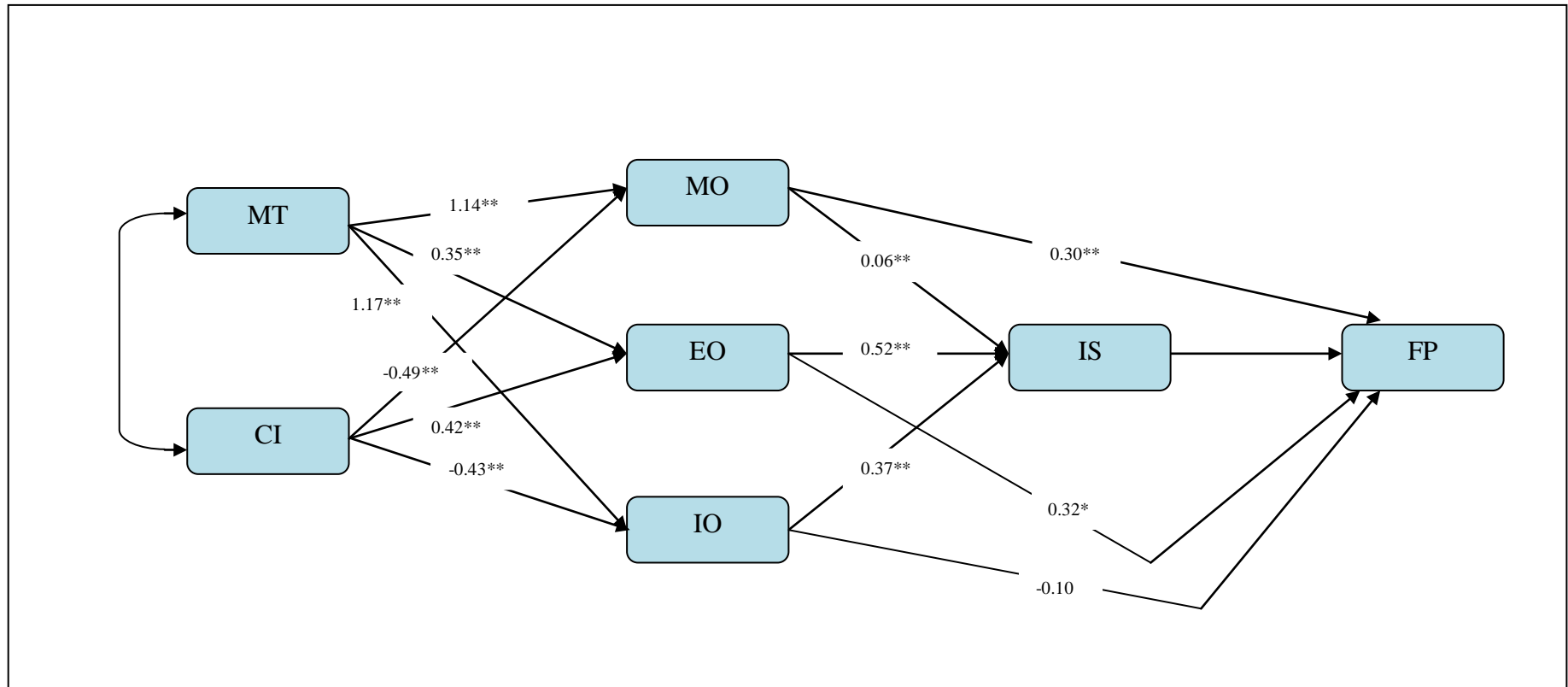
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.865	.851	.919	<b>.910</b>	<b>.919</b>
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

**RMSEA**

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	<b>.074</b>	.068	.080	.000
Independence model	.246	.241	.251	.000

**Standardized RMR = .0716**

Figure 6.3: Simplified Structural Model



\* $p > 0.05$ , \*\* $p = 0.01$

## **Part D: Multivariate Normality**

As discussed in Section 5.6.4, 5.6.5 and 5.6.6, this study used a method by Bryne (2010) to assess the normality distribution of the data. It is suggested that the normalised estimate of multivariate kurtosis (c.r) value need to be less than 5.00 in order to be normally distributed. The c.r. value for CFA model is 4.174 and the c.r. value for the structural model is 4.971 which indicate the data are normally distributed.

#### Assessment of normality (CFA model)

Variable	min	max	skew	c.r.	kurtosis	c.r.
QG8_PROMOTION	1.000	7.000	-.238	-1.502	-.710	-2.240
QG9_IDEA_CHANCE	2.000	7.000	.028	.179	-.563	-1.778
QG11_COMPETITIVE_MOVE	1.000	7.000	.110	.696	-.221	-.696
QG3_PRICE	3.000	7.000	-.174	-1.099	-.732	-2.311
QG4_DEMAND	3.000	7.000	.016	.102	-1.015	-3.202
QG5_PRODUCT_NEEDS	3.000	7.000	-.054	-.340	-.927	-2.925
QE4_INNOVATION_NEW	2.000	7.000	.088	.553	-.080	-.253
QE1_INNOVATION_SUCCESS	2.000	7.000	-.104	-.657	.092	.292
QE2_INNOVATION_RATE	2.000	7.000	-.013	-.083	.027	.086
QE3_INNOVATION_COMPETITOR	2.000	7.000	-.038	-.239	.120	.380
QC11_PREDICT	2.000	7.000	-.068	-.431	-.545	-1.719
QC9_CUSTOMER_PARTICIPATION	2.000	7.000	-.244	-1.538	-.471	-1.488
QC10_IDEA	2.000	7.000	-.007	-.046	-.573	-1.807
QD4_AGGRESIVE	1.000	7.000	-.042	-.266	-.740	-2.337
QD5_RISK_PROFITABILITY	1.000	7.000	-.185	-1.169	-.347	-1.095
QD6_RISK_OPPORTUNITY	1.000	7.000	-.220	-1.390	-.335	-1.057
QB7_SYSTEMATIC	3.000	7.000	-.095	-.601	-.694	-2.190
QB8_ROUTINE	3.000	7.000	-.161	-1.017	-.700	-2.210
QB1_MONITOR	4.000	7.000	-.433	-2.735	-.702	-2.217
QB2_EXPERIENCE	4.000	7.000	-.272	-1.714	-.848	-2.678
QB4_FOCUS	3.000	7.000	-.474	-2.989	-.605	-1.908
Multivariate					16.784	4.174

### Assessment of normality (structural model)

Variable	Min	Max	skew	c.r.	kurtosis	c.r.
QI1_PERFORMANCE_ SALES_REVENUE	3.000	7.000	.320	2.017	-.755	-2.382
QI3_PERFORMANCE_ RETURN_ASSETS	3.000	7.000	.163	1.028	-1.022	-3.225
QE4_INNOVATION_ NEW	2.000	7.000	.088	.553	-.080	-.253
QI2_PERFORMANCE_ RETURN_INVESTMENT	3.000	7.000	.101	.635	-.774	-2.442
QE1_INNOVATION_ SUCCESS	2.000	7.000	-.104	-.657	.092	.292
QE2_INNOVATION_ RATE	2.000	7.000	-.013	-.083	.027	.086
QE3_INNOVATION_ COMPETITOR	2.000	7.000	-.038	-.239	.120	.380
QC11_PREDICT	2.000	7.000	-.068	-.431	-.545	-1.719
QC10_IDEA_1	2.000	7.000	-.007	-.046	-.573	-1.807
QC9_CUSTOMER_ PARTICIPATION	2.000	7.000	-.244	-1.538	-.471	-1.488
QD6_RISK_ OPPORTUNITY	1.000	7.000	-.220	-1.390	-.335	-1.057
QD5_RISK_ PROFITABILITY	1.000	7.000	-.185	-1.169	-.347	-1.095
QD4_AGGRESIVE	1.000	7.000	-.042	-.266	-.740	-2.337
QB8_ROUTINE	3.000	7.000	-.161	-1.017	-.700	-2.210
QB7_SYSTEMATIC	3.000	7.000	-.095	-.601	-.694	-2.190
QB4_FOCUS	3.000	7.000	-.474	-2.989	-.605	-1.908
QB2_EXPERIENCE	4.000	7.000	-.272	-1.714	-.848	-2.678
QB1_MONITOR	4.000	7.000	-.433	-2.735	-.702	-2.217
QG8_PROMOTION	1.000	7.000	-.238	-1.502	-.710	-2.240
QG9_IDEA_CHANCE	2.000	7.000	.028	.179	-.563	-1.778
QG11_COMPETITIVE_ MOVE	1.000	7.000	.110	.696	-.221	-.696
QG3_PRICE	3.000	7.000	-.174	-1.099	-.732	-2.311
QG4_DEMAND	3.000	7.000	.016	.102	-1.015	-3.202
QG5_PRODUCT_ NEEDS	3.000	7.000	-.054	-.340	-.927	-2.925
Multivariate					22.719	4.971



# **Appendix 3**

## **(Statistics on Malaysian SMEs)**

## **Part A: Distribution of Malaysian SMEs**

### Distribution of SMEs in the Manufacturing Sector

Sectors	Number of Establishment	SMEs	Proportion of SMEs (per cent)%
Textile and apparel	3,419	3,319	18.2
Food and beverages	2,949	2,749	15.2
Metal and metal products	2,919	2,709	14.8
Wood and wood products	2,776	2,582	14.1
Paper, printing, publishing	1,288	1,195	6.5
Machinery and engineering	1,249	1,135	6.2
Plastic products	1,121	988	5.4
Electrical and electronics	907	543	3.0
Non-metallic mineral products	893	803	4.4
Other (jewellery)	733	666	3.6
Petrochemical and chemical	712	526	2.9
Transport equipment	507	433	2.4
Rubber and rubber products	482	366	2.0
Palm oil and palm oil products	434	155	0.8
Leather	67	65	0.4
Total	20, 455	18,271	100.0

Source: SMIDEC 2004

### Distribution of SMEs in the Services Sector

Sectors	Number of Establishment	SMEs	Proportion of SMEs (per cent)%
Education and Health	8,558	8,438	4.5
Professional services	5,548	4,840	2.6
Selected services	4,146	3,844	2.1
Transportation and communication	3,908	3,473	1.9
Computer industry services	283	186	0.1
Wholesale and Retail Trade	170,046	165,640	88.8
Telecommunication	38	7	0
Total	192,527	186,428	100

Source: Malaysian Department of Statistics, *Census 2000*.

## **Part B: Types of Incentives Provided by Public Sector to SMEs**

Tax incentives	Grant assistance	Loans, Credit & Equity Participation	Infrastructure & Supporting Services
1) Pioneer Status 2) Investment Tax Allowance (ITA) 3) Reinvestment Allowance (RA) 4) Double deduction of expenses incurred on brand advertising, export promotion, export credit insurance premiums and research & development	1) Industrial Technical Assistance Fund (ITAF) 2) Skill upgrading program 3) Technology acquisition fund (TAF) 4) Commercialization of Research & Development Fund (CRDF) 5) E-Commerce Grant 6) Factory Auditing Scheme	1) Minimum Lending Guidelines for SMEs 2) Government-Funded Financing Facilities 3) Credit Guarantees for SME Borrowers 4) Equity Financing and Venture Capital	1) Infrastructure Development Grant 2) Supporting Services: <ul style="list-style-type: none"> <li>• Technical and business advisory</li> <li>• clinics and briefings</li> <li>• Information dissemination and promoting awareness</li> <li>• Product displays and business matching</li> <li>• Promotion of exports by SMEs</li> </ul>

Source: Saleh&Ndubisi, (2006); SME Corp. Malaysia, (2002) and SMIDP (2001-2005)