

**THE RELATIONSHIPS BETWEEN
ENTREPRENEURIAL ATTITUDE ORIENTATION,
MARKET ORIENTATION, ENTREPRENEURIAL
COMPETENCIES, COMPETITIVE INTELLIGENCE
AND INNOVATIVE PERFORMANCE**

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UNIVERSITI SAINS MALAYSIA

2015

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AND INNOVATIVE PERFORMANCE**

by

AINUL MOHSEIN BINTI ABDUL MOHSIN

**Thesis submitted in fulfilment of the requirements
for the degree of
Doctor of Philosophy**

September 2015

DEDICATIONS

This thesis is dedicated to:

The sake of Allah, my Creator and my Master,

My great teacher and messenger, Mohammed (SAW) (May Allah bless and grant him), who taught us the purpose of life,

My parents i.e. my father who never stops giving in countless ways, my mother who always tests my patience , (But... I still love you heaps!)

My beloved nieces and nephews: whom I can't force myself to stop loving,

To my teachers for the knowledge and wisdoms,

My friends who encourage and morally support me, (You know who you are!)

All the people in my life who touch my heart,

I dedicate this research to them.

ACKNOWLEDGEMENTS

In the name of Allah, the Most Gracious and the Most Merciful.

Alhamdulillah, foremost, all praises to Allah for the strengths and His blessing in completing this thesis. I would like to express my sincere gratitude to my supervisor Associate Professor Dr. Hasliza Abdul Halim for the continuous support for my PhD study, for her patience, motivation, enthusiasm, and immense knowledge. Her guidance helped me in my research and writing of this thesis. Her pleasant personality makes my PhD journey enjoyable and doable. I could not have imagined having a better supervisor for my PhD study.

Besides my supervisor, I would like to thank my co-supervisor Associate Professor Dr. Noor Hazlina Ahmad for her insightful comments. My sincere thanks also go to Professor T. Ramayah for his hard questions, guidance and encouragement. I am also thankful to the exam committee members for their comments. My sincerest thanks go to the Examination Chair, Professor Dr. Balakrishnan Muniandy for his encouragement and support of my efforts.

My gratitude and appreciation to my fellow mates at Universiti Sains Malaysia for the stimulating discussions, for the sleepless nights we were working together, and for all the fun we have had in the past years. I also like to acknowledge the Malaysian Ministry of Higher Education for their assistance, to able me to continue this journey under the 'MyBrain15 Programme'.

Last but not the least; I would like to thank my parents: Haji Abdul Mohsin Mohamed and Aida Ibrahim for their love, support and understanding. Dad, you are the best supporter and study mate a daughter can have.

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LIST OF ABBREVIATIONS

CI	Competitive Intelligence
SME	Small Medium Enterprises
EAO	Entrepreneurial Attitude Orientation
NfA	Need for Achievement
LoC	Locus of Control
Innov	Innovativeness
MO	Market Orientation
CUSOrient	Customer Orientation
COMOrient	Competitor Orientation
EC	Entrepreneurial Competencies
IP	Innovative Performance

LIST OF KEY TERMS

Competitive Intelligence	CI is an ongoing, systematic evaluation of the external environment for opportunities, threats and developments that could have an impact on the organisation and influence reactive decision-making (Strauss & du Toit, 2010) and follows specific steps from acquiring raw information to producing intelligence for decision makers in deciding action (Roitner, 2008).
Small Medium Enterprises	SME enterprise is classified as micro, small or medium will depends on the two criteria, i.e. full-time employees and annual sales turnover as per the definition by the National SME Development Council.
Entrepreneurial Attitude Orientation	EAO is a model that measure the entrepreneurial attitude based on the concepts of needs for achievements, locus of control, self-esteem and innovation. The EAO approach also inculcates three components which are: affect, cognition and conation to the four subscales (Robinson et al., 1991).
Market Orientation	An organisational culture that creates efficient and effective behaviours for the creation of superior values for buyers and increase the superiority business performance. It composed of three behavioural parts which are customer orientation, competitor orientation and inter-functional coordination (Narver & Slater, 1990).
Entrepreneurial Competencies	Entrepreneurial competencies are the total ability package of an entrepreneur to perform the job role successfully which includes entrepreneurial, managerial responsibility, and technical functional role (Man et al., 2002).
Innovative Performance	Involves the actions to improve the products, processes, procedures that increase the significance, usefulness and performance of the products, processes or procedures (Pinho, 2008; Damanpour, 1996). This study only looks at the incremental innovation because the scope of the study is limited to SMEs.

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LIST OF PUBLICATIONS

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- 1)
Developing the Entrepreneurial Attitude Orientation, Strategic Competency Behaviour and Competitive Intelligence in the Innovation-led Economy.
ISBN 978-967-11542
ASEAN Entrepreneurship Conference AEC 2012
Kuala, Lumpur, Malaysia
5-6 November 2012
Organised by: MASMED Universiti Teknologi MARA & Ministry of Education, Malaysia

- 2)
Delving into the Issues of Entrepreneurial Attitude Orientation and Market Orientation Among the SMEs - A Conceptual Paper.
ISBN 978-16299-31074
International Congress on Interdisciplinary Business and Social Science 2012
Jakarta, Indonesia
1-2 December 2012
Organised by: JIBES School of Informatics Management and Computing, Jakarta Indonesia.

- 3)
Competitive Intelligence among SMEs: Assessing the Role of Entrepreneurial Attitude Orientation on Innovation Performance.
ISBN 978-605-64002-6-1
13th EBES Conference
5-7 June 2014
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- 4)
Leveraging on Entrepreneurial Competencies and Innovative Performance: Is Competitive Intelligence a Missing Link.
e-ISBN 978-983-2078-93-7 Conference Proceedings Citation Index - Thomson Reuters
Knowledge Management International Conference 2014
12-15 August 2014
Langkawi, Malaysia
Organised by: College of Arts & Sciences, Universiti Utara Malaysia and Rangsit University, Thailand.

Publications:

- 1)

Abdul-Mohsin, Ainul Mohsein, Abdul-Halim, Hasliza, & Ahmad, Noor Hazlina. (2012).

Delving into the Issues of Entrepreneurial Attitude Orientation and Market Orientation among the SMEs - A Conceptual Paper.

Procedia-Social and Behavioral Sciences, 65, 731-736. Scopus

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Competitive intelligence among SMEs: Assessing the role of entrepreneurial attitude orientation on innovation performance.

In M. H. Bilgin, H. Danis, E. Demir & C. K. M. Lau (Eds.), *Innovation, Finance, and the Economy. Proceedings of the 13th Eurasia Business and Economics Society Conference Series: Eurasian Studies in Business and Economics* (Vol. 1): pg 15-22 Springer.

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In F. Baharom, Y. Yusof, SAm et al.(Eds.), *Proceeding of Knowledge, Management International Conference (KMICE) 2014* (Vols.1 & 2): 285-290 CPCI Thomson Reuters

HUBUNGAN ANTARA SIKAP ORIENTASI KEUSAHAWANAN, ORIENTASI PEMASARAN, KOMPETENSI KEUSAHAWANAN, KEPINTARAN PERSAINGAN DAN PRESTASI INOVATIF

ABSTRAK

Malaysia bercita-cita untuk mencapai status negara maju yang berdaya saing dan berasaskan ekonomi inovasi. Malaysia telah mengambil beberapa langkah untuk membangunkan masyarakat yang berpengetahuan intensif dan inovatif. Menurut Program Transformasi Ekonomi, sektor swasta akan menerajui dalam membina ekonomi negara. Walau bagaimanapun, 97.3% daripada jumlah organisasi yang ditubuhkan di Malaysia adalah IKS dan mereka menyumbang hanya 32.5% kepada Keluaran Dalam Negara Kasar. Untuk membetulkan ketidakseimbangan ini, kerajaan beriltizam untuk membantu IKS melalui program-program pembangunan dan pembiayaan. Walaupun dengan mengambil tindakan afirmatif, masih banyak IKS gagal bertahan. Kegagalan untuk bertahan boleh dikaitkan dengan ketidakupayaan untuk menggunakan sumber yang ada secara berkesan. IKS didapati kurang berinovasi dalam perniagaan mereka. Kemungkinan besar, pihak IKS perlu juga mempertimbangkan faktor lain. Penyelidikan telah menunjukkan bahawa IKS di Malaysia banyak terlibat dengan orientasi pasaran. Orientasi pasaran mempunyai korelasi positif dengan prestasi inovatif; dan kepintaran persaingan adalah alat yang penting dalam menghasilkan inovasi. Tambahan pula, risikan pasaran adalah subset kepada kepintaran persaingan (KP). Selain daripada itu, kompetensi kepintaran persaingan adalah hampir sama dengan kompetensi keusahawanan yang mempunyai hubungan positif dengan sikap keusahawanan. Merujuk kepada pendapat di atas, tujuan kajian ini adalah untuk mengkaji hubungan antara kelima-lima variabel dalaman ini. Teori dan konsep asas untuk rangka kerja ini adalah Teori Berasaskan Sumber, Konsep Keupayaan Dinamik dan Konsep Kecekapan Keusahawanan. Pengumpulan data kajian telah dijalankan dengan mengedarkan soalan selidik kepada 1000 Ketua Pegawai Eksekutif IKS. Analisis deskriptif dan pemodelan persamaan struktur telah dijalankan untuk menguji kesemua hipotesis kajian ini. Secara

umum, kompetensi keusahawanan mempengaruhi kepintaran persaingan tetapi hanya kompetensi tertentu yang mempunyai pengaruh yang besar ke atas KP. Keputusan kajian menunjukkan bahawa KP adalah pengantara kepada hubungan antara kompetensi keusahawanan yang khusus dan prestasi inovatif. Kompetensi khusus ini yang mendorong kepada inovasi. Orientasi pasaran disahkan sebagai penentu kompetensi keusahawanan. Dua konstruk orientasi sikap keusahawanan; lokus kawalan dan inovasi didapati mempunyai perhubungan bererti dengan kompetensi khusus ini. Kajian ini memberi sumbangan teori dan praktikal, khususnya dalam mengenal pasti faktor-faktor penting yang mempengaruhi amalan KP dalam meningkatkan inovasi dan kesannya ke atas prestasi inovatif. Pendek kata, ia memberi petunjuk yang berguna untuk usahawan dan pembuat dasar tentang kepentingan KP, kompetensi keusahawanan, orientasi pasaran dan orientasi sikap keusahawanan dalam membangunkan dan meningkatkan prestasi inovatif.

THE RELATIONSHIPS BETWEEN ENTREPRENEURIAL ATTITUDE ORIENTATION, MARKET ORIENTATION, ENTREPRENEURIAL COMPETENCIES, COMPETITIVE INTELLIGENCE AND INNOVATIVE PERFORMANCE

ABSTRACT

Malaysia aspires to attain the status of a fully developed nation that is competitive and built on innovation-based economy. Several steps are taken by the Malaysian Government to develop a knowledge-intensive and innovative society. According to the Economic Transformation Programme, the private sector shall lead in building the nation's economy. However, 97.3% of the total established businesses in Malaysia are SMEs and they contribute to only 32.5% of the country's Gross Domestic Product. To correct this imbalance, the government is committed to support the SMEs via development programmes and funding. Despite all these affirmative action, many SMEs still fail to sustain. This failure to sustain is attributed to the inability to utilise available resources effectively. Perhaps there is another factor that the SMEs need to consider. Research has shown that Malaysian SMEs are heavily involved in market orientation. Market orientation is found to have a positive correlation to innovative performance; and competitive intelligence is a critical tool for innovation. Furthermore, market intelligence is a subset of competitive intelligence (CI). Besides that, the CI competencies are very comparable to the entrepreneurial competencies which are also positively related to the entrepreneurs' attitude. In view of the above, the purpose of this study is to examine the interrelationship of these five internal variables. The underpinning theory and concepts for this framework are Resource-based Theory, Dynamic Capabilities Concept and Entrepreneurial Competency Concept. The data collection was conducted by self-administrated questionnaire which were distributed to 1000 SME CEOs. Descriptive analysis and structural equation modelling were conducted to test all the hypotheses of this study. In general, entrepreneurial competencies influenced competitive intelligence but particularly only specific competencies have significant influence on CI. The findings also

indicates that CI mediates the relationship between specific entrepreneurial competencies and innovative performance. These specific competencies motivate innovativeness. Market orientation is confirmed as a determinant of entrepreneurial competencies. Two constructs of entrepreneurial attitude orientation; locus of control and innovativeness are found to have significant relationships to these competencies. This study make both theoretical and practical contributions, especially in identifying the significant factors that influence the practice of CI in enhancing innovativeness and its impact on innovative performance. In short, it provides useful pointers to entrepreneurs and policy makers on the importance of CI, entrepreneurial competencies, market orientation and entrepreneurial attitude orientation in developing and enhancing innovative performance.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Since independence 57 years ago, Malaysia has made significant progress to become a fast growing developing nation. Bolstered by a relatively stable political environment, much stride was made in the economic and social spheres. The country now prides itself with robust industrialisation to further propel its economy that was once heavily dependent on mining and agriculture. In 1991, the idea of realising a fully developed nation status, a nation that is entirely competitive, dynamic, robust, and resilient by the year 2020, was mooted (Economic Planning Unit, 2001). This vision, dubbed Vision 2020, is predicated on the assumption that the country will invest in, among other things, policies, and programs to unleash the innovative power of the economy's engines of growth. This is so because innovation, and hence the emergence of an innovation-based economy, is crucial to the competitiveness, dynamism, robustness, and resilience of the country (Guha, 2011). An Innovation Economy denotes an economy that emulsifies knowledge, technology, entrepreneurship and innovation in order to accelerate productivity, which is the heart of economic growth (Janeway, 2012; Nelson & Winter, 2002; Schumpeter, 1943). In order to compete with other developed countries and achieve developed country status as enshrined in Vision 2020, it is imperative that Malaysia take steps to develop a more knowledge-intensive and innovation-driven economy.

Towards this end, the government of Malaysia of late has embarked on a new economic strategy known as the Economic Transformation Program (ETP)

(PEMANDU, 2010). Specifically, the ETP seeks to transform Malaysia into a high-income nation, a prerequisite of a fully developed nation. One of the most significant and vital factors of the ETP is the leadership of the private sector in building the nation's economy. In contrast, the government acts as the catalyst in policy making and high-impact funding. The plan is for the private sector to fork 92% of the nation's economic investment from 2010 to 2020, where approximately 73% would be domestic direct-investment and 27% foreign direct-investment (PEMANDU, 2010).

An interesting fact disclosed by the Department of Statistics Malaysia is that 97.3% or 645,136 of the total established businesses in Malaysia are SMEs and only 2.7% are categorised as large organisations (Jabatan Perangkaan Malaysia, 2012). As a major investing sector, the importance of the SMEs in the transformation of Malaysia has been duly recognised by the government. In the Third Industrial Master Plan 2006-2020 (IMP3), for instance, special focus was given to them by the government with their needs being addressed (MITI, 2006). The SMEs provide 57.5% of the nation's employment (National SME Development Council, 2014) despite having 97.3% of the total number of business establishments in Malaysia. In terms of Gross Domestic Product (GDP), they contribute a meagre 1/3 or 32.5% (Star Business, 2013).

In Malaysia, the definition of SME revolves around two criteria, namely the number of people employed by the entity or the amount of revenue generated. Prior to 1st of January 2014, an entity is considered a SME if its annual sales turnover does not exceed RM25 million or if the number of employees does not exceed 150 people. Due to changes in the world economic landscape, especially triggered by price inflation, structural shifts and changing business plans, the definition of SMEs has been revised accordingly. The new definition has the impact of including even more organisations

into its fold. This revision, which was effective 1st January 2014, is described in Table 1.1 below.

Table 1.1
SME Definition Effective 1 Jan 2014

Classification	Manufacturing	Services and Other Sectors
Micro	Sales turnover of less than RM300,000 or employees less than 5	Sales turnover less than RM300,000 or employees less than 5
Small	Sales turnover from RM300,000 but less than RM 15 mil or employees from 5 but less than 75	Sales turnover from RM300,000 but less than RM 3 mil or employees from 5 but less than 30
Medium	Sales turnover from RM15 mil but not exceeding RM50 mil or employees from 75 but not exceeding 200	Sales turnover from RM3 mil but not exceeding RM20 mil or employees from 30 but not exceeding 75

Notes: Source from SMECorp Malaysia (2013)

1.2 The Progress of Malaysian SMEs as Compared to those of Developed Nations

In recent years, the number of businesses in the SME sector has escalated in accordance to global development. A census conducted by the Department of Statistics Malaysia in 2011 established that 89.23% (591,883 establishments) of the SMEs are in the services sector, 5.98% in the manufacturing sector, 3.34% in the construction sector, 1.33% in the agricultural sector and only 0.063% in the mining sector (Jabatan Perangkaan Malaysia, 2012; National SME Development Council, 2014). Most of those in the services sector are involved in wholesaling, retailing, hospitality and food and beverages businesses.

In 2013, the performance of Malaysian SMEs was promising as indicated by many positive indicators such as increase in sales, increase in new orders, introduction of new products, business expansions within the country and even expansion to other countries (National SME Development Council, 2014). Despite this and the

proliferation of SME establishments, SMEs generally are facing many challenges ranging from high cost of raw materials, shortage of skilled workers, low productivity and rising overhead costs, barrier to global sourcing, financing and credit issues, no accessibility to latest technology tools, high regulatory costs and lack of managerial capabilities (Mohd Aris, 2007; Muhammad -Mohd Zylkifli, Abdul Kamal, Mohd Rushdan, & Zakiah Hassan, 2010; National SME Development Council, 2014; Samad, 2007).

In order to address these challenges and to concurrently elevate SME competitiveness to be at par with those of developed nations, the Malaysian government has embarked on a commitment to support the SMEs via learning and development programmes, funding, matching grants, and outreach programmes. Examples of these undertakings include the modernisation of SME traditional sundry shop businesses (TUKAR), modernisation of automotive workshops (ATOM), growth of premium outlets, high performing Bumiputera programme (TERAS) and exemption of some costly business regulation fees for SMEs with five or less employees (PEMANDU, 2010). In addition, the government has stepped in to steer the economy away from being labour intensive to a more capital, knowledge and technology based that has the ability to innovate, design and develop new products and processes. This has the impact of making the SME sector more resilient (Tan, C.F et al. 2011).

A total of RM220 billion worth of funding were disbursed to 524,000 SMEs as of March 2010 (The EPU, 2010) and this figure did not include the cost of training and other development programmes. In the first quarter of 2014, the SMEs continued to receive external financing from financial institutions with 94% approval rate (National SME Development Council, 2014). Nevertheless, despite all these

assistances many SMEs still fail to sustain (Ahmad, Abdul Halim, & Mohamed-Zainal, 2010). Perhaps there are other factors that the SMEs need to consider in order to better grasp the reasons for their failure and their incapability to contribute sufficiently to the development of the Malaysian economy.

1.2.1 Transition into Becoming a High Income Status Nation

Like Malaysia, many other nations aspire to be a high-income nation. A study of thirteen countries that sustained a 7% yearly growth since 1947 noted that only six were able to achieve high income status. This accomplishment was driven by a revamping of the countries' SMEs. In five of these countries, namely Hong Kong, Singapore, Japan, Taiwan and the Republic of Korea, the SMEs contribute significantly to the respective countries' GDPs. In contrast, Malaysia, which started off at the same starting point as Taiwan and the Republic of Korea, has lagged behind these two countries in the past decades. The Republic of Korea, for instance, has shown tremendous progress due to the rapid emergence of a technology, knowledge and innovation led-economy that fosters entrepreneurship and infrastructure enhancement (Shukran, Sultana, & Rahman, 2011).

Another noteworthy factor is that the Republic of Korea invests heavily in innovation capability by leveraging on its competitive intelligence (Kim & Ha, 2010). The concept of competitive intelligence (CI) is not new but has typically been neglected by many organisations, particularly SMEs. By engaging in CI, the Republic of Korea has successfully transformed itself into a high-income advanced economy and the world's 11th largest economy by 1995 (International Monetary Fund, 2014). More pertinently, 99.8% of businesses in the Republic of Korea are SMEs and they provide the population with 87.5% of employment. The Korean SMEs also contribute

to more than 50% of the national GDP in 2011(Asian Development Bank, 2014; Guha, 2011).

The experiences of the other five countries have similarly shown a hike in the SME contribution to their GDPs from 2012 to 2014. For example Hong Kong SME GDP contribution is at 58% (Chen, 2012), Singapore at 50% (Singapore Government, 2013), Japan at 55.3% (Hafeez, Shariff, & Mad Lazim, 2013) and Taiwan at 85% (Ur-Rahman, 2013). The ranking of these five countries on the Global Competitive Index Report for year 2014-2015 are as follows: Singapore was ranked second, Japan sixth, Hong Kong seventh, Taiwan fourteenth, and South Korea twenty-sixth (World Economic Forum, 2014). On the Global Innovative Index 2014, Singapore was ranked seventh, Hong Kong tenth, South Korea sixteenth and Japan twenty-one (Cornell University, INSEAD, & World Intellectual Property Organization, 2014). Malaysia was ranked twentieth on the 2014-2015 Global Competitiveness Index and thirty-third on the 2014 Global Innovative Index. From these rankings it is clear that Malaysia needs to explore new strategies to be at par with others. The rankings are consistent with the findings of Che-Ha and Mohd-Said (2012) on the lack of empirical evidences of innovation activities being carried out by SMEs in Malaysia. In another study, Malaysian SMEs are shown to be unsuccessful in utilising their resources effectively, especially those relating to technical efficiency. (Ahmad & Singh, 2012).

It is evident that Malaysia needs a lot of catching up to do before it is able to compete with others. The SMEs are still lacking in competitiveness and innovativeness. A survey on SME competitiveness by Dhurakij Pundit University Research Centre (DPURC) in 2012 of five ASEAN countries, namely Malaysia, Vietnam, Indonesia, Philippines and Thailand, ranks Malaysia fourth among the five.

In the previous year (2011), Malaysia was leading the other four countries (Thongtep, 2012). Figure 1.1 exhibits the ranking.

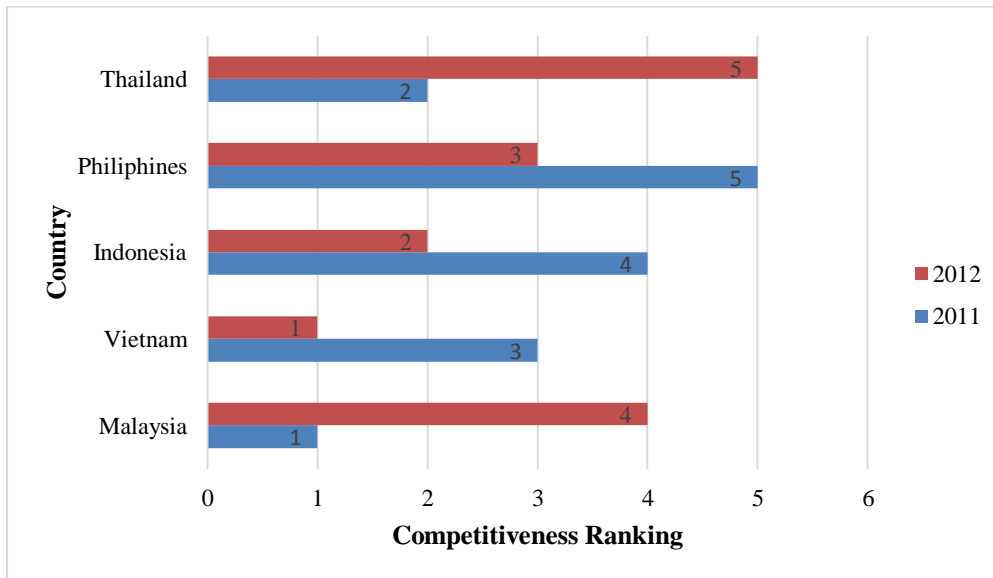


Figure 1.1: The Competitiveness Ranking Survey from 2011 to 2012

In this era of globalisation, the survival of Malaysian SMEs depends highly on the organisations' innovativeness, creativity, technology, knowledge and entrepreneurship. The study by Bilton and Cummings (2010) indicate that highly innovative SMEs tend to grow quicker than non-innovative ones. Hence, Malaysian entrepreneurs must be bold enough to reinvent themselves and make themselves more relevant to the needs of the times less they will face the possibility of being ousted from the market. As the experience of the Republic of Korea shows, Malaysian SMEs should prioritise their strategies to become more competitive and innovative. They should also be more vigilant of what the SMEs in developed countries (such as the Republic of Korea and Singapore) are doing and be prepared to emulate them.

In addition to the Asian experience, Malaysia can also look to the European Union (EU) for inspiration. In the EU, 98% or 20.7 million of the total business establishments are SMEs. The SMEs provide 87 million jobs and contribute to 67% of the total EU employment today. Their contribution to the GDP is more than two thirds (Ecorys, 2012). Reacting to the uncertainty of the financial world market and rapid globalisation, the EU has developed the European Cluster Excellence Scoreboard (ECES) to safeguard the SME sector. The role of ECES is to study and understand the drivers of SME success in order to attain world class SME cluster (National SME Development Council, 2012a). For instance, since the 1990's, France is one of the countries in the world that support its SME expansion by providing intervention programmes, such as the Competitive Intelligence (CI) programme (Larivet, 2009). This programme heightens the awareness of the SMEs on the importance of essential skills in developing CI practices and the benefits to be derived from it. Consequently, France and Belgium made the decision to include SMEs in their economic policies and CI is part of the national agenda. This has made France and Belgium unique as compared to other countries. In contrast, most countries have yet to focus on CI as part of their strategy to enhance innovation. They only implement general plans involving scientific and technological information or knowledge management when planning their economic agenda (Bergeron, 2000).

The path taken by France has been arduous. When it started fanning CI to the entrepreneurs some 20 years ago, there were many objections and criticisms. Evidently the authorities did not sufficiently consider the entrepreneurs' attitude towards and their understanding of CI methods and processes (Smith & Kossou, 2008). It took France many years to re-educate the SMEs on CI, not the least being their misconception that CI was economic espionage (Larivet & Brouard, 2012). This

point highlights an interesting question on entrepreneurial attitude towards and perception of CI since little attention has been paid to this topic. According to Ahmad, Ramayah, Wilson, and Kummerow (2010), the studies on SMEs have typically been classified into two categories - external and internal. External studies focus on the role of governments in helping SMEs, particularly in creating the necessary environment that is conducive to their success, while internal studies are those that focus on organisational or individual variables like resource and managerial or planning competencies that influence business success.

The present study looks at entrepreneurial attitude orientation (EAO), market orientation (MO), entrepreneurial competencies (EC) and their relationships to competitive intelligence (CI) and innovative performance (IP). It is thus an internal study. Stokes and Blackburn (2002) suggested the unit of analysis to be the business owner if research is to be conducted on business innovation success. Business owners are the decision makers, hence it is important to examine their business orientation, competencies and attitudes and how these impact organisation performance. Markman (2007) and Beaver and Jennings (2005) argued that entrepreneurs who have the right knowledge, competency and attitude will formulate strategies to maximise business success.

1.2.2 Competitive Intelligence

Competitive Intelligence (CI) has been established in European countries as well as some Asian countries as a mechanism to enhance the innovative performance of SMEs. It is defined as an ongoing and systematic evaluation of the external environment for opportunities, threats and developments that could have an impact on the organisation and influence reactive decision-making (Strauss & du Toit, 2010). It

entails the following of specific steps from the acquisition of raw information to the production of intelligence for decision makers (Roitner, 2008). In the past, CI and business intelligence (BI) were often used interchangeably because BI was the old term for CI and was used in knowledge management to describe the product of knowledge management activities (McGonagle & Vella, 2012). Over the years, CI has emerged as an important area within BI where the emphasis is on understanding and measuring an organisation's external competitive environment (Zheng, Fader, & Padmanabhan, 2012). Unlike BI that focuses on structured information, CI's emphasis is on unstructured information (Bose, 2008). CI has also evolved into a systemic application discipline (Bartes, 2010). As such, it is not only a product but also a process. Regardless of size, organisations normally establish systems to safeguard their internal environment by scanning the surrounding. However, they often miss to accurately assess the external environment (Herring, 1992).

The purpose of CI is to reduce environmental uncertainty and improve management decisions. It is a method by which an organisation aims to obtain strategies advantage by gathering actionable information about the factors that affect the business environment and apply the information to the planning process and decision-making in order to improve the organisation's performance (Saayman et al., 2008).

CI can assist the business in many ways, from the creation of new concepts, products, opportunities, markets, and positioning and the launching of new products, processes or services, to the generation of new ideas, the tracking of trends, mergers and acquisitions and the formulation of strategies (Wadie, 2011). A study conducted in the scientific township of Isfahan, Iran on the effect of CI on innovativeness indicates that the use of CI leads to innovation and ensures the survival of the

organisation (Hussein, Farzaneh, & Amiri, 2011). This finding is corroborated by the study of small establishments in Canada that also shows a clear relationship between CI usage and innovative performance (Tanev & Bailetti, 2008). In addition to the effect on innovation, scholars of marketing have noted the importance of CI in shaping strategic decisions, the creation of new products and the building of the organisation (Jaworski, Macinnis, & Kohli, 2002).

Bisson (2010), in his article, remarked that French SMEs are increasingly dynamic in applying CI and getting connected to the globalised economy. For this reason, CI has a strong foothold in the EU. It has proven to be an important source of innovativeness and organisations are willing to invest heavily in this area (Priporas, Gatsoris, & Zacharis, 2005).

Previous research on Malaysian SMEs has primarily focused on the external factor of governmental assistance and support in developing the growth of the SMEs (Saleh & Ndubisi, 2006). Too few studies were attempted to uncover and understand the internal factors that would influence the undertaking of CI by Malaysian SMEs. Factors such as attitudes, competencies, strategies, and managerial or planning skills were neglected (Carrier, 2007). This situation has made the investigation into the said internal factors covering market orientation (MO), entrepreneurial attitude (EAO) and entrepreneurial competencies (EC) all the more timely and necessary.

According to Othman and Hamedon (2011), Malaysian SMEs do practice market orientation (MO). They scan for customer information and less on the socioeconomic condition, but there is little evidence that the information from the customer scanning is incorporated into their decision making and innovation strategies. Since scanning for information is a step in CI, it suggests that the SMEs are applying CI albeit on a very limited scale. The study by Muhammad Masroor (2010)

that focuses on the effect of MO on Malaysian SMEs confirms that MO is an important determinant of SME success. In this case, SMEs strive to provide valuable products and services by developing strong ties with their customers (Muhammad Masroor, 2010). Other studies on MO in Malaysia similarly support the notion that MO has a significant impact on organisation performance (Ramayah, Nusrah, & May-Chiun, 2011).

This situation raises the question of whether entrepreneurs that adopt MO demonstrate positive relationship to entrepreneurial competencies (EC) will progress to CI to create innovative edge through innovative products, services, and processes. The study by Ahmad, Abdul Halim, et al. (2010) posits that success or failure of SMEs is greatly influenced by entrepreneurial skills and competencies. Smart and Conant (2011), Shane and Venkataraman (2000) and Hall and Fulshaw (1993) similarly reached the same conclusion.

Entrepreneurial competencies (EC) refers to the “underlying characteristics such as specific knowledge, motives, traits, self-images, social roles, and skills which result in venture birth, survival, and/or growth” (Bird, 1995). For the purpose of this study, EC refers to the total ability package of an entrepreneur to perform the job role successfully, and this includes entrepreneurial, managerial and technical functional roles (Man, Lau, & Chan, 2002). EC is important for business growth, survival and success because it is capable of minimising the negative impact of business environment and is a key driver in SMEs (Ahmad, Ramayah, et al., 2010). It has been shown that successful entrepreneurs possess a high level of entrepreneurial competencies (Li, 2009). Therefore, EC is a crucial determinant in the examination of CI among Malaysian entrepreneurs.

According to Muller (2002), the success of CI is highly dependent on the availability of a set of required skills since CI is a multidisciplinary subject. Above all, Edelman, Brush, and Manolova (2002) stated that in SMEs all important and vital resources are held by the entrepreneurs and the SME performance depends on their skills, knowledge, abilities, experience and education. The entrepreneurs are the core decision makers and have the greatest influence on the organisation's roadmap formulation and the way the organisation is steered forward (Masurel et al., 2003). A proposition can be made that the result of a performance is affected by applying the appropriate knowledge into action, which is actually the competency and attitude. A research by Mahmud and Osman (2010) on students' attitude and statistic competency confirms that competency and attitude are highly correlated. Thus, in this study it is also essential to examine the SMEs' Entrepreneurial Attitude Orientation (EAO) and its relationship to entrepreneurial competencies (EC) and their relationships to competitive intelligence (CI) and innovative performance (IP).

The French experience in implementing CI among the entrepreneurs should shed some light on SMEs' EAO and their perception of CI. It is important to examine the relationship of entrepreneur EAO to EC and CI because the SMEs' decision making process is a reflection of the entrepreneurs' entrepreneurial attitude (Smith, Wright, & Pickton, 2010). An entrepreneur may personalise his approach on how the information is collected, analysed and ultimately used to improve innovation performance. To understand the attitude of the entrepreneurs, therefore, Entrepreneurial Attitude Orientation is utilised. EAO incorporates an attitude scale to predict the entrepreneurial orientations that are more domains specific and that increase the correlation with the actual behaviour. It is worth noting that EAO items have been tested for validity and reliability in different social and cultural situations

(Miao, 2012). Since attitude is the gateway to the understanding of EC and CI, part of this study will also examine the relationship of EAO to EC. This is all the more pertinent in view of the fact that there exist very little findings on the relationship of entrepreneurial attitude to entrepreneurial competencies and innovative performance relating to SMEs in Malaysia.

1.2.3 Innovativeness of Malaysian SMEs

In this era of rapid globalisation, the survival of SMEs depends highly on the organisations' innovativeness, creativity, technology, knowledge and entrepreneurship. Innovation, in turn, is the crucial building block for economic growth, development, and better employment. Rogers (2008) defined innovation as the introduction of new knowledge or the advancement or modification of existing knowledge. This is in tandem with the view of Damanpour (1996), who posited that organisational innovation can include managerial, in addition to process and product innovation. Innovation, then, is multi-dimensional. Many or most authors would agree that having distinguished and superior competencies are very important for the survival of SMEs because such competencies will spur innovation.

As mentioned before, there is a dearth of information on SME innovative activities (Che-Ha & Mohd-Said, 2012). Although the research by Sveiby (1997) suggests that knowledge transfer is critical to organisational learning and success since knowledge grows when being used and depreciates when not used, Malaysian SMEs are incapable of fully embracing the idea. In general, they do not invest enough in IT infrastructure to promote knowledge management and innovativeness. Part of the reason for this is the large financial cost involved, lack of top management

commitment, poor organisational culture, and lack of policies on knowledge sharing also contribute to this malaise (Chong, Chong, & Gan, 2011).

Another factor is the fact that the majority of the Malaysian entrepreneurs are in the micro enterprises category, and these businesses are relatively more conservative in their adoption of the latest available technology and innovative practices (Omar & Abdul Hamid, 2006). This is attributable to a number of reasons, namely incompetency of workforce, lack of support, unavailability or lack thereof of information technology (Ong, Siew, & Wong, 2011), and pure lack of technical efficiency (Ahmad & Singh, 2012).

In yet another study by Tan, Eze, and Chong (2011), it is noted that Malaysian SMEs regardless of industry type are directly influenced by the relative advantage, compatibility, observability, security and cost considerations in ICT adoption decisions. From the above studies, it is evident that Malaysian SMEs are hesitant in adopting information technology and this is due in large measure to limited knowledge of the technology, the cost of investment involved and ignorance of advantages that the technology provides. Added to this, the technology system complexity is another significant reason for the slow adoption of ICT by Malaysian SMEs (Tan et al. (2011). Despite the dismal picture painted by these studies, there is little doubt that Malaysian SMEs can expand their business performance by taking advantage of innovative practices (Moghavvemi, Salleh, Zhao, & Hakimian, 2011).

In conclusion, as confirmed by Hussein et al. (2011), CI can lead to innovativeness and this will help to ensure the survival of the organisation. Hence, it is vital to examine the relationship between CI and innovativeness in the Malaysian SME context. Malaysian entrepreneurs must not only be vigilant in scanning the environment for information but must also be smart in intelligence generation.

Generating intelligence is a stepping stone to the cultivation of innovation culture in any organisation. Thus, the survival of Malaysian SMEs will depend on how well they are able to operate in an ambiguous environment and their resiliency and ability to create their own competitive edge (Mohd-Said, 2012). Even with all these challenges, SMEs are indeed a source of dynamism and innovation in the new global economy.

1.3 Problem Statement

Malaysia is progressing into an innovation-driven economy to achieve the status of high-income nation by 2020. As highlighted in an earlier paragraph, the new transformation is piloted by the private sector (PEMANDU, 2010). Yet, in Malaysia, 97.3 percent or 645,136 of the total business establishments are categorised as micro, small and medium businesses (Jabatan Perangkaan Malaysia, 2012) . Despite the various initiatives provided by the government to escalate their productivity, SME's are not performing to the expected level and contribute to only 1/3 or 32.5% of the nation's Gross Domestic Product (GDP) (National SME Development Council, 2014; Star Business, 2013). Furthermore, Malaysian SMEs are not competitive and innovative in conducting their businesses (National SME Development, 2011). Malaysian entrepreneurs are slow in reacting to the environmental changes, robust competition and new innovation. It is self evident that innovation is the route to economic growth as it creates new organisations. This creation of new innovations is the fundamental source of growth in business and also for their continued existence (Teece, 2010a).

1.3.1 The Decreasing Trends in Innovative Performance among Malaysian SMEs

Dobni (2008) considers the DNA of innovation as being rooted in the creation of something new, different and unique that creates new value. The Malaysian government has always been promoting to the business community the culture of innovativeness in order to assist the nation's productivity (PEMANDU, 2012). It has put extra effort to nurture innovativeness among the SMEs to move Malaysia into the innovation-led economy as mentioned before. The Prime Minister of Malaysia, Dato Seri Najib Tun Razak, during his launching of the SME Master plan (2012-2020) in Putrajaya in 2012 has again emphasised on the importance of innovativeness among the SMEs when he said:

“...an innovation-led economy demands a new breed of SMEs that can help foster market and technology-driven innovation to create more high-skilled jobs in all economic sectors (National SME Development Council, 2012b)”.

It is obvious that one of the ways for SMEs to become innovative is to rely on the entrepreneur's ability and creativity to innovate. Nevertheless, Malaysia's ranking as reported by the Global Innovation Index for the past five years has been stagnant. In fact, it has declined from 28 to 33 in 2014 (Cornell University et al., 2014). This is exhibited in Figure 1.2.

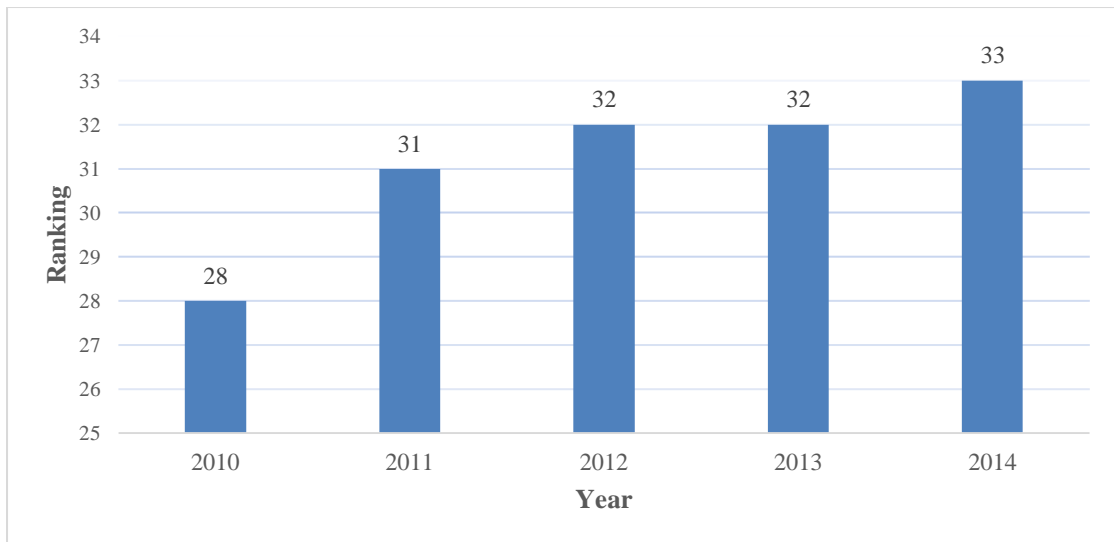


Figure 1.2: The Global Innovative Index from 2010 to 2014.

1.3.2 Lack of Competitive Intelligence Practice by Malaysian SMEs

In Malaysia, CI has been practiced by large organisations at a moderate level, and even with the increased importance of CI to the business world, there are very limited empirical studies made on CI and organisation performance (Yap & Md Zabid, 2011b). Most studies on CI in Malaysia are skewed towards large organisations with the assumption that large organisations have a higher possibility of establishing a formal CI department (Yap & Md Zabid, 2011a). In a similar vein, Oubrich (2007) said that SMEs limit CI to only the conducting of markets and competitors surveillance whereas large organisations are integrating CI programmes into their strategy development. In spite of the above observations, Priporas, Gasteris, and Zacharis (2005) were of the opinion that irrespective of the size of the organisation, CI is the fundamental ingredient for success in today's volatile business environment. The practice of CI can be as simple as interviewing a competitor's customer or reading their competitor's annual report to as complicated as performing a fully digitised, multi-continent, and multiplayer war game (Fuld, 2006; Shaker & Gembicki, 1999).

In Malaysia, there is evidence that SMEs practice CI as shown by their using of specific criteria when evaluating online tools and software for use in competitive intelligence analysis (Ariff Syah Juhari and Stephens (2011). Some of the criteria are the abilities to identifying, monitoring, filtering, importing, and rating of information.

Furthermore, Bisson (2010) expressed that to compete effectively, SME must practice CI in their day-to-day business activities. Given the fact that CI is important to the SMEs' survival and innovation, this study argues for the importance of CI in developing the SME industry in the new Malaysia innovation-led economy.

1.3.3 Lack of Focus on Internal Elements that Promote CI and Innovative Performance

Previous studies of SMEs are either external or internally focused. Of the latter kind, particularly those relating to organisational variables and individual variables, there is certainly a lack of materials. This gap fuels a strong suspicion that the Malaysian SMEs do not have the pre-requisite entrepreneurial competencies (EC) to engage in CI and consequently improve their innovation performance (IP). While it is true that some degree of market orientation strategy, a subset of CI, has been employed by the SMEs, it is postulated that even greater success can be accomplished if the SMEs were to adopt both MO and CI simultaneously, more so since CI has proven to be effective in engendering business innovativeness and ensuring the survival of the organisation. The study by (Porter, 1998) clearly demonstrates that innovation and CI leads to competitive advantages that are much needed by Malaysian SMEs. However, before a proper examination of CI and innovation can be carried out or understood, it is vital that an examination is made of entrepreneurial attitude towards CI since the former has a bearing on the two variables.

CI activities as practised by SME organisations have been widely studied in Belgium (Larivet & Brouard 2012), Canada (Brouard 2006; Tannev & Bailetti, 2008; Tarraf & Molz, 2006), France (Afolabi 2007; Bisson 2003; Knauf 2007; Salles 2006; Smith et al. 2010), Switzerland (Begin, Deschamps & Madinier, 2007), Turkey (Wright, Bisson, & Duffy, 2012), and Singapore (Wong, 2003). From the literature produced, it can be concluded that in countries where the SMEs are actively involved in CI practices, most of these SMEs are also high GDP contributors. For example, Canadian SMEs contribute 54.3% to the country's GDP (Business Development Bank of Canada, 2012), France SMEs contribute 61.8% (Chaudhuri, 2010), and Singapore SMEs contribute 50% to their respective countries' GDPs (Singapore Government, 2013).

Since there is inadequate literature on attitudinal orientation of SMEs and EC and on CI and innovative performance, this study attempts to fill the gap by developing a model for CI deployment and empirically examine and clarify the entrepreneurial attitude towards CI and if competitive intelligence is the missing link in the nation's strive to transform itself into an innovation-driven economy. In this study, MO and EC are also examined because MO is widely used among the Malaysian entrepreneurs in their strategic orientation (Othman & Hamedon, 2011). MO can be regarded as a subset of CI because MO involves external environmental scanning and is also an important determinant in SME success in Malaysia. EC is equally given importance in this study because implementation of CI requires specific competencies.

1.4 Research Questions

There are five major research questions which this study attempts to answer.

- Research Question 1:** Does entrepreneurial attitudinal orientation influence entrepreneurial competencies?
- Research Question 2:** Does market orientation influence entrepreneurial competencies?
- Research Question 3:** Do entrepreneurial competencies influence competitive intelligence?
- Research Question 4:** Does employment of competitive intelligence influence innovative performance?
- Research Question 5:** Does CI mediate the relationship between entrepreneurial competencies and innovative performance?

1.5 Research Objective

The objective of the study is to examine the Malaysian entrepreneurs' driving force towards competitive intelligence from the perspective of entrepreneurial attitude orientation, market orientation and entrepreneurial competencies. The study also intends to examine competitive intelligence impact on innovative performance. Hence, this study is comprised of the following:

- i. To examine the relationship between entrepreneurial attitude orientation and entrepreneurial competencies.
- ii. To examine the relationship between market orientation and entrepreneurial competencies.
- iii. To examine the effect of entrepreneurial competencies on competitive intelligence among the Malaysian entrepreneurs.
- iv. To examine the relationship between competitive intelligence and innovative performance.
- v. To examine if CI is a mediator between entrepreneurial competencies and innovative performance.

1.6 The Scope of the Study

The scope of this study will centre on entrepreneurial attitudes, market orientation, entrepreneurial competencies and competitive intelligence, and their relationships to innovative performance.

Even with increasing interest and attention on these topics, there is little empirical study that links the outcome of competitive intelligence to innovative performance in SMEs. As mentioned earlier, prior research on CI has mostly centred on large organisations (Adidam, Banerjee, & Shukla, 2012). This study deals with SMEs and it focuses on entrepreneurial attitudes, market orientation, and entrepreneurial competencies that may lead to the use of CI and its impact on innovative performance. The respondents to the questionnaire are the entrepreneurs cum business owners and they represent all the SME categories including manufacturing, services and other sectors. The reason for the choice of entrepreneurs as respondents is because they are the chief decision makers and formulators of business strategy and roadmaps (Masurel, Montfort, & Lentink, 2003). The research covers the population of SMEs in Malaysia. A set of questionnaire was distributed to the respondents by mail to measure the variables. Given that CI is both a process and a product (Mugo, Wanjau, & Ayodo, 2012), the measurement of CI will focus on CI multi stage process.

1.7 Significance of the Study

This study can be appreciated from two significant perspectives which are theoretical contribution and practical implications. These are elaborated below.

1.7.1 Theoretical Significance

Using the Resource-Based-Theory (RBT) as the underpinning theory, this study attempts to develop a cohesive theoretical research framework that synthesises entrepreneurial attitude orientation, market orientation, entrepreneurial competencies, competitive intelligence and innovative performance. It also attempts to investigate whether these variables, regardless of the size of an organisation, have the ability to integrate the different resources (tangible, intangible resources, intangible capabilities) to accomplish new and innovative methods, services or products according to market positioning (Hou & Chien, 2010). Thus, this study will add to the literature of entrepreneurial attitudinal behaviour, market orientation, entrepreneurial competencies, CI and SMEs innovation performance by offering a new framework that postulates CI as having an impact on or driving innovation performance. Furthermore, innovation is part of an organisation's survival mechanism (Mazzarol, Reboud, & Soutar, 2009).

This study is also an attempt at bringing about a semblance of justice to the existing literature on CI which, at the present moment, is heavily skewed towards large organisations as opposed to SMEs. As highlighted by a number of studies, the relationship of CI to organisational performance is similarly more dominantly investigated in the case of large organisations (Adidam et al., 2012; Yap & Md Zabid, 2011b). The same is true in the case of studies on innovation performance. Furthermore, much of the literature on CI is focused on technical subjects, such as the determination of the correct process, data mining, CI organisation structure and areas of intelligence practices (Chew 2011). Very little attention is given to managerial or entrepreneurial attitude vis-a-vis CI (Qiu, 2008) and on the antecedents of CI. In the same vein, literature on variables and outcomes of innovativeness is much, but

studies that cover relevant constructs in an integrated manner are limited (Rhee, Park, & Lee, 2010). Hence, this study will contribute to the body of literature by identifying and highlighting more variables and possible outcomes of CI in the Malaysian SME context.

1.7.2 Practical Significance

This study is anticipated to be useful to entrepreneurs, scholars and government policy makers in Malaysia as it reveals the relationship of entrepreneurial attitude orientation, market orientation and entrepreneurial competencies to competitive intelligence and its impact on innovative performance. This study will also highlight the relationship between entrepreneurial attitude orientation, market orientation and competencies of innovative entrepreneurs. Such knowledge will facilitate the decision-making process to engage in CI.

In the case of government policy makers, this study will assist them to define the appropriate intervention, awareness and assistance programmes for the SMEs. By being better informed of the nature and extent of CI practice among the entrepreneurs, for example, the authorities can strategise and prioritise their plans and actions. They can, for example, start with a CI awareness programme if it is found that the entrepreneurs are still lacking in awareness. This can then be followed up with the launching of public policies and educational programmes. Policy makers may also integrate CI training programmes for the SMEs to adopt CI.

In the case of entrepreneurs, this study may be the first step in exposing them to the concept of CI and how CI links to innovativeness. By being aware of the relationship between the various variables mentioned, the entrepreneurs would be more confident to adopt CI and to introduce innovation in their business. Increase in