THE INFLUENCE OF INTELLECTUAL CAPITAL AND ORGANISATIONAL LEARNING CAPABILITY ON THE COMPETITIVE CAPABILITIES OF MANUFACTURING SMALL AND MEDIUM ENTERPRISES (SMEs) IN MALAYSIA

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ABSTRAK

Tujuan kajian ini adalah untuk mengkaji kepentingan modal intelek dalam konteks pekilang perusahaan kecil and sederhana (PKS) di Malaysia dan bagaimana modal intelek ini dapat meningkatkan kemampuan bersaing mereka dengan meningkatkan kemampuan pembelajaran organisasi. Hubungan ini dijelaskan daripada perspektif pandangan teori keupayaan dinamik. Kajian ini juga menyiasat hubungan antara kemampuan bersaing pembuatan dan prestasi perniagaan. Di samping itu, ia juga mengkaji bagaimana persekitaran dinamik berfungsi sebagai moderator di antara kemampuan bersaing pembuatan dan prestasi perniagaan. Kajian ini berjaya mengumpul data daripada 145 PKS melalui borang soal selidik yang telah dibina berdasarkan tinjauan kajian yang relevan dan temu bual dengan pengusaha PKS. Data yang dikumpul dianalisis menggunakan model persamaan struktur Smart PLS. Penemuan kajian menunjukkan bahawa dimensi modal intelek dari segi modal hubungan dan organisasi mempunyai kesan signifikan pada kemampuan pembelajaran organisasi. Kemampuan pembelajaran organisasi didapati bertindak sebagai pengantara ke atas hubungan modal intelektual (modal hubungan dan organisasi) dan kemampuan bersaing pembuatan dari segi penghantaran, inovasi produk dan kualiti. Bagi hubungan antara kemampuan bersaing pembuatan dan prestasi perniagaan, kajian ini mendapati kualiti mempunyai kesan yang besar ke atas prestasi kewangan. Kajian ini juga mendapati bahawa terdapat hubungan signifikan di antara prestasi bukan kewangan dan keupayaan berdaya saing dari segi penghantaran dan kualiti). Kesan moderator persekitaran dinamik hubungan di antara keupayaan berdaya saing (penghantaran dan kualiti) dan prestasi kewangan juga ditemui dalam kajian ini. Sumbangan terhadap teori dan praktikal hasil penyelidikan ini juga telah dibincangkan. Kelemahan dalam kajian ini juga telah dijelaskan bersama dengan cadangan untuk kajian akan datang juga dibentangkan.

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ABSTRACT

This research examined the relevance of intellectual capital in the context of manufacturing SMEs in Malaysia and how intellectual capital can enhance manufacturing competitive capabilities through organisational learning capability from the dynamic capability perspective. This research also investigates the relationship between manufacturing competing capabilities and business performance. In addition, it also examined how dynamic environment moderates the relationship between competitive capabilities and business performance. Data were collected from 145 manufacturing SMEs via survey questionnaire developed from related literature and interviews from practitioners. The data collected were then analysed using structural equation modeling via Smart PLS. Findings indicate that intellectual capital in terms relational and organisational capital had significant impact on organisational learning capability. Organisational learning capability mediates the relationship between intellectual capital (relational and organisational capital) and manufacturing competitive capabilities in terms of delivery dependability, flexible product innovation and quality. As for the relationship between manufacturing competitive capabilities and business performance, this study found quality have a significant impact on financial performance. This study also found that there is a significant positive relationship between non-financial performance and competitive capabilities (delivery dependability and quality). Moderating effect of dynamic environment on the relationship between competitive capabilities (delivery dependability and quality) and financial performance were found in this research. Theoretical and practical contributions of the research findings were discussed. Limitations of the research were explained and suggestions for future research were also presented.

CHAPTER 1

INTRODUCTION

1.0 Introduction

Recent developments in research on small and medium enterprises (SMEs) have seen increased attention given to this sector, largely due to the realisation that SMEs play a pivotal role in a country‟s economy. In addition, SMEs are also seen as a mechanism to stimulate economic growth, as an important source of job opportunities and as a tool to reshape an economic structure which has been highly dependent on activities of large firms (Savlovschi & Robu 2011; Ahmad, 2007; Abdullah, 1999).

Given the increasing awareness and acceptance of the crucial role that SMEs play in ensuring the growth and socio-economic wellbeing of a country, understanding how SMEs can utilise their limited resources to achieve global competitiveness is critical in order to ensure their survival, especially in this current era of globalisation. SMEs today are forced to compete to produce the highest quality at a rapid pace and at the lowest cost possible. However, this has proved to be highly challenging and researchers are in general agreement about the numerous challenges experienced by SMEs that may threaten their survival due to their size and limited resources (Southiseng & Walsh, 2010; Ngah & Ibrahim, 2009; Dangayach & Deshmukh, 2005). Consequently, an important question raised is "how can these firms capitalise on their strengths in order to achieve competitive capabilities?"

Taking the current economic climate into account, the principal aim of the present study is to examine how manufacturing SMEs can capitalise on intellectual capital through organisational learning capability as a mediator in order to enhance their competitive capabilities. In addition, this study also examines whether competitive capabilities achieved would lead to better business performance in terms of financial and non-financial performance.

This chapter is organised thus; the background of the study is shown, followed by research problems, questions and objectives. It then proceeds with the significance of this study, the scope of this study, and finally, the organisation of the remaining chapters of this thesis are shown.

1.1 Background of the Study

1.1.1 The Importance of Small and Medium Enterprises (SMEs)

Small and medium enterprises (SMEs) are a country‟s lifeline and are considered to be the backbone of economic growth in all countries in the world as they account for 80 percent of global economic growth (Jutla et al., 2002). The importance and vital role of SMEs in the development of a nation cannot be underestimated (Rajesh et al., 2010; Ahmad & Seet, 2009; Saleh & Ndubisi, 2006) and their importance can be proven through viewing the significant contribution SMEs make towards a country‟s Gross Domestic Product (GDP) as shown in Table 1.1.

Based on SMEs‟ contribution towards job creation and GDP, many countries are taking steps and initiatives to ensure the survival, sustainability and competitiveness of its SMEs. They are doing this by establishing various SME support schemes which include subsidised lending, relaxing credit standards, training, marketing and branding initiatives, providing advisory services and so forth. For

example, the governments of countries such as Malaysia, Indonesia, Japan and Korea are now guaranteeing 100 percent of certain loans and by doing so are eliminating any credit risks for banks. In addition, India and Taiwan are extending the maturity of SMEs loans (International Monetary Fund, 2009).

Table 1.1
International SME Development and Growth

Country	Measures used in the definitions of SMEs	% of total establishment	% of total workforce	% of SME contribution to GDP
Malaysia (2010)	Employment and sales	99.2	59.0	32.0
Japan (2007)	Employment and assets	99.7	71.0	53.0
Chinese Taipei (2011)	Employment, sales capital	97.6	71.5	n.a
Korea (2007)	Employment and assets	99.8	86.5	49.0
Thailand (2008)	Employment and fixed assets	99.6	69.0	38.0
Singapore (2007)	Employment and fixed assets	45.0	45.0	25.0
Germany (2008)	Employment and sales	99.7	79.0	53.0
China (2007)	Employment, sales and assets	99.0	82.0	60.0
Philippines (2006)	Employment and assets	99.6	70.0	30.0

Source: SME Annual Report 2011/12: Redefining the future, SMECorp Malaysia, 2012, p.124; SME Masterplan 2012-2020, SMECorp Malaysia, p.29; Liu, X. (2008), „SME Development in China: A Policy Perspective on SME Industrial Clustering", in Lim, H. (ed.), SME in Asia and Globalisation, ERIA Research Project Report 2007-5, pp.37-68, Small Business Bureau, MOEA. 2012. White Papers on Taiwan"s SMEs, MOEA, Taipei, pp. 236-246

The initiation of globalisation has brought forward a challenging future for SMEs. The globalisation of markets, technological advances and the changing needs and demands of consumers have all led to a volatile and rapidly changing business environment. These changes drive SMEs to find new dimensions in order to allow them to compete with foreign competition; these include new product development, new approaches to manufacturing and appropriate marketing strategies (Rajesh et al., 2010).

1.1.2 The Relevance of the Manufacturing Sector to a Nation's Economy

The manufacturing sector is still highly relevant to a nation‟s economy despite its drastic decline in the last few decades as the share of the services sector has grown (Berg et al., 2008). Manufacturing SMEs form the backbone of all nation‟s manufacturing sectors whereby 98.5% of United States, 99.8% of Korean and 97.8% of German manufacturers are SMEs (Ezell & Atkinson, 2011).

Currently, the service sector contributes over 70% of GDP in advanced economies (Szirmai, 2009). This has created a situation where the importance of manufacturing to a country‟s economy is being questioned and undermined as services take a larger share of GDP in many developed nations (Ezell, 2011). However, some argue that this is not the case as a healthy economy needs the co-existence of both manufacturing and services sectors (Ezell & Atkinson, 2011).

Manufacturing and services sectors are inseparable, complementary and not substitutes for each other (Ezell & Atkinson, 2011). Most services such as finance, communications and transportation are producer services where the main customers are manufacturing firms. It is for this reason the survival and growth of these services are highly dependent on the vitality of the manufacturing sector (Chang, 2011). Furthermore, according to Ezell and Atkinson (2011), the relationship between the services and manufacturing sectors are deeply symbiotic and the health of one sector shapes the health of the other, in particular technology-based services such as design and value added research and development (R&D) cannot be separated from the manufacturing sector as manufacturing, R&D and innovation go hand in hand.

Secondly, the manufacturing sector plays a critical role as a key driver of overall job growth and as an important source of middle-class jobs for individuals at

many skill levels (Ezell & Atkinson, 2011; Ali, 2009; Chandran & Munusamy, 2009). Economists generally agree that the manufacturing sector has a great multiplier effect and generates significant spillover effects in other sectors with each job in the manufacturing sector leading to the creation of two to five additional jobs elsewhere in the economy (Shingler, 2009). In the United States of America (US), the manufacturing sector supported 14 million jobs in 2007 where the majority of workers without a college degree were employed (Scott, 2008). Moreover, the manufacturing sector is a key source of high-paying jobs which on average pay 9% more in wages and benefits than jobs in the overall economy in the US (Yakimov & Woolsey, 2011). This highlights the fact that the manufacturing sector serves as an important source of jobs for individuals at many skill levels.

Thirdly, the manufacturing sector is important in improving the trade account balance of a country. A country will suffer from a trade deficit when the its import is more than export (Samuelson & Nordhaus, 2001). The implications of a chronic trade deficit are that it would lead to loss of millions of high-wage and high skilled manufacturing jobs and it would push workers into other sectors where wages are lower (Scott, 2002). Furthermore, a trade deficit also represents a hidden tax on future generations that would compromise their economic well-being (Ezell & Atkinson, 2011). A weak manufacturing sector can cause chronic trade deficits. One of the fastest ways to boost exports is through expanding and improving the manufacturing sector as well as the services sector (Ezell & Atkinson, 2011). In others words, through manufacturing, a country is able to fulfill its domestic demand and this reduces dependency on imported manufactured goods. Furthermore, through manufacturing, countries are able to export their goods hence buying fewer imports and selling more exports will help countries reduce their trade deficit.

1.1.3 The Importance of Intangible Assets (Intellectual Capital) for Business Success

Both tangible and intangible assets are crucial for business success. Intangible assets are also known as intellectual capital (OECD, 2010; Bukh, 2002; Joia, 2000). For the purpose of consistency, the term intellectual capital will be used in this study. Intellectual capital can be referred to as assets that do not have a physical embodiment, for example, human capital, network and organisational know-how (OECD, 2010; Cohen & Kaimenakis, 2007). Although tangible asset are important for business success, current studies have proven that knowledge and brainpower have superseded tangible assets as the primary source of competitive advantage (Hamzah & Ismail; 2008; Youndt et al., 2004a; Quinn et al., 1996). This is because the long term sustainability of organisations depends on their ability to stimulate renewal and development which is reflected through the organisation‟s intellectual capital (Edvinsson, 1997). However, while the role of intellectual capital in value creation is very important, the understanding of it is still poor (OECD, 2010).

Intellectual capital is also known as organisational knowledge and it needs to be managed in order to make sure that the knowledge is valuable (Ngah & Ibrahim, 2009). Intellectual capital is also considered as the pursuit of effective use of knowledge as mentioned by Bontis (1998). In a highly competitive market where there is increased globalisation, a desire to maximise productivity and with enhanced customer expectations, organisational knowledge is seen by many researchers and practitioners to be an important source of competitive advantage and also as a key element of a strategy for organisational improvement (Spicer & Saddle, 2006; Real et al., 2005; Nanoka et al., 2000; Senge, 1990). The importance of knowledge as the

determinant for the survival of an organisation has also been acknowledged by Liao et al. (2008) with the researchers stating that the future industrial revolution would be based on knowledge which changes the way an individual, an enterprise or a nation can create wealth and prosperity. For this reason they suggested that in order to meet current challenges, firms must actively seek ways to strengthen the research and development of knowledge, manage it efficiently and utilise it effectively. The same argument was mentioned by Hitt et al. (2003) where they agreed that the importance of human capital (which is one of the dimensions in intellectual capital) was indeed important in developing capabilities and core competencies in an organisation.

However, SMEs are lagging behind in terms of tangible resources such as physical and financial capital (Ngah & Ibrahim, 2009) and this may hinder them from achieving competitive capabilities that are important for their survival. Nevertheless, due to their size, SMEs have their own advantages including flexibility, networking and the ability to adjust more quickly to changes when compared with larger organisations (Ngah & Ibrahim, 2009; Narula, 2004). These advantages are mainly related to the intangible resources (human, organisation and structural) that SMEs possess. SMEs should therefore focus on capitalising on the strengths and advantages that they have, in this case intangible resources, rather than focus solely on tangible resources.

Business models today are geared towards the use of intangible resources whose value is much greater than that of the value of tangible assets and these intangible resources constitute the concept of intellectual capital (Cohen & Kaimenakis, 2007). Bontis (1998) concluded that intellectual capital is now becoming a critical resource for a firm‟s success and has a significant impact on

business performance and Wiig (1997) recognised it as being the foundation of an organisation‟s success in the twenty-first century.

1.1.4 The Importance of Organisational Learning

Organisational knowledge or intellectual capital is less useful if learning does not take place in the organisation. In other words, if a large amount of knowledge is present in an organisation but limited attention is paid to whether employees actually learn and expand the existing knowledge, sooner or later, there will be an adverse effect on the firm‟s competitiveness and survival. The importance of organisational learning has been highlighted by many researchers including Senge (1990) who reiterated that learning can be a competitive advantage when an organisation can learn and react more quickly than its competitors. Besides Senge (1990), many researchers and practitioners also agreed that organisational learning is crucial in unlocking the learning potential of individuals and groups in order to gain and sustain competitive advantage (Birdthistle, 2008; Birdthistle & Fleming, 2005; Marsick &Watkins, 2003). Learning is therefore seen as an important avenue to retain and improve competitiveness, productivity and innovativeness in an uncertain market where the greater the uncertainties, the greater the need for learning (Dodgson, 1993).

Various studies on the benefits of organisational learning have been much lauded by researchers. For example, Lim (2010), in his research based on 669 employees in Korea, found that organisational learning culture is positively related to job satisfaction and organisational commitment and Ellinger et al. (2002) found that there is a positive association between organisational learning and a firm‟s financial performance. Moreover, organisations that promote and support learning among their employees were also reported to have higher capabilities in terms of

innovation and new product development. This was proven by researchers such as Skerlavaj et al. (2010), Pradeep (2009), Chen et al. (2008) and Keskin (2006) in their research on organisational learning.

While research into organisational learning has provided many insights into this area, there are still certain aspects that have not been sufficiently analysed and there is still debate on how managers can effectively develop learning in their firms (Akgun et al., 2007; Gomez et al., 2005). In order for organisational learning to take place, firms first need to have the relevant capabilities to learn and it is believed that organisational learning is built on existing capability and, or developing on new ones and by assessing an organisation‟s learning capability, one could then improve organisational learning (Goh & Ryan, 2002 ; DiBella et al., 1998).

It has become a primary interest to researchers and practitioners to study the benefits of an organisation with learning capabilities towards the performance of the organisation. Researchers including Day (1994), Liao et al. (2007), Tippins and Revipreet (2003), Calantonea et al. (2002) and Hassan (2008) have conducted research on the importance of organisational learning capability and the impact it has on the performance and capability of an organisation. Liao et al. (2008) in their research on the relationship between knowledge inertia, organisational learning and innovation proved that there is a positive and significant relationship between organisational learning capability and organisational innovation. They showed that an organisation with a higher learning ability leads to an organisation with better performance in terms of administrative and technical innovation.

However, there is a lack of empirical studies in management literature on the impact of intellectual capital on organisational competitive capabilities (Abubakar, 2011; Delgado; 2011) and organisational learning capability (Salmaninezhad &

Daneshvar, 2012) and manufacturing firms competitive capabilities as it is important to examine the firms‟ capabilities holistically given the scenario where nowadays it is not enough for an organisation to compete on only one competitive capability (Koufteros et al., 2002; White, 1996; Vickery et al., 1993).

Against this backdrop and given a combined interest in intellectual capital, firms‟ competitive capabilities and business performance, this study will examine the effects of: a) intellectual capital on SMEs organisational learning capability; b) the mediating role of organisational learning capability between the relationship of intellectual capital and manufacturing competitive capabilities; c) competitive capabilities on business performance and d) the moderating role of the business environment on the relationship between competitive capabilities and firms‟ business performance.

1.1.5 Malaysia in Context

Similar to other countries, SMEs play a vital role in the growth of the Malaysian economy. They represent the majority of the businesses in Malaysia, constituting 99.2% of total business establishments and contributing 32% of the nation‟s GDP (SME Annual Report, 2011/2012).

According to the Economic Planning Unit Malaysia (2010) SMEs contribution to GDP had increased from 29.4% to 31.4% in 2008. In addition, SMEs‟ share of total employment and exports of the country were 59% and 19% respectively in 2010 (SME Masterplan 2012-2020).

The manufacturing sector is the country‟s engine of growth (Raj, 2011). The total number of manufacturing companies in Malaysia is 39,669 where 37,861 are SMEs (SME Corp 2011). This indicates that more than 95.4% of manufacturing

companies are actually SME manufacturing. The contribution of SME manufacturing to Malaysia can further be shown through Table 1.2 and 1.3.

Table 1.2
Value Added Growth of SMEs by Key Economic Activities, Annual Change in Percentage (constant 2005 prices)

Year	2006	2007	2008	2009	2010e*	2011p*
	Growth Rate (%)					
Agriculture	8.3	3.3	2.3	1.2	5.9	6.4
Mining & quarrying	4.9	12.7	1.6	1.8	3.3	3.4
Construction	0.3	12.4	2.5	6.9	10.3	2.9
Manufacturing	**5.7**	**7.2**	**0.7**	**-7.0**	**11.5**	**7.6**
Services	6.8	12.6	9.8	2.6	6.7	6.4
Plus: import duties	-12.2	22.9	68.1	11.7	48.0	33.0
Total Value Added	**6.4**	**10.0**	**6.5**	**0.2**	**8.0**	**6.8**

* Note: e refers to estimate, p: preliminary
Source: SME Annual Report 2011/12: Redefining the future, SMECorp Malaysia, 2011, p.124

Table 1.2 depicts the value added growth of SMEs by key economic activities with value added being defined as the market value of its product minus the cost of inputs purchased from other firms (Frank & Bernanke, 2009). Consequently, value added growth is derived from the value of current year minus the value of previous year, divided by the value of previous year. As for the SME manufacturing sector, Table 1.2 shows that value added growth peaked in 2010 at 11.5%. This was caused by a significant improvement in external demand despite negative growth (-7.0%) in 2009. This research highlights that the greatest growth arose in the manufacturing sector between 2010 and 2011 and comparing this with the other SME economic sectors in Malaysia shows that SME manufacturing is playing a vital role in the Malaysian economy.

Table 1.3
Contribution of SME to GDP by Key Economic Activity

Year	2005	2006	2007	2008	2009	2010e	2011p
	Growth Rate (%)						
Agriculture	3.4	3.5	3.4	3.3	3.4	3.4	3.4
Mining & Quarrying	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Construction	0.7	0.7	0.7	0.7	0.8	0.8	0.8
Manufacturing	**8.1**	**8.1**	**8.2**	**7.8**	**7.4**	**7.7**	**7.9**
Services	17.0	17.2	18.2	19.1	19.9	19.8	20.0
Plus: import duties	0.1	0.1	0.1	0.2	0.2	0.2	0.3
Total Value Added	**29.4**	**29.6**	**30.7**	**31.2**	**31.7**	**32.0**	**32.5**

Note: e refer to estimate, p: preliminary
Source: SME Annual Report 2011/12: Redefining the future, SMECorp Malaysia, 2011, p.124

Table 1.3 shows the contribution of SMEs to GDP by key economic activity with GDP being defined as the market value of the final goods and services produced in a country during a given period (Frank & Bernanke, 2009). It shows that SME manufacturing is the second largest contributor to GDP, after the services sector, from 2005 to 2011 and also shows that SME manufacturing‟s contribution to the country‟s GDP declines from 2005 to 2009 from 8.1% to 7.4% with improvement in 2010 where it increases to 7.7% and is expected to improve to 7.9% in 2011. Nevertheless, the contribution is still lower than what had been achieved in 2007 and for this reason it is pertinent to examine the issue of how to increase the competitiveness of manufacturing SMEs in order to ensure the sustainability of the upward trend of contributing more to the country‟s GDP.

1.2 Problem Statement

1.2.1 Lack of Competitiveness

Despite the fact that Malaysian SMEs constitute about 99% of the total business establishment in Malaysia, the contribution of SMEs to the GDP is relatively low when compared with other countries such as Japan (53%) and Singapore (49%) as shown in Table 1.1. This has prompted the Malaysian government to prioritize the development of SMEs competitiveness as an important national agenda. This is illustrated by the various initiatives undertaken by SME Corp Malaysia in 2010 where out of 267 programs implemented, 200 had a financial commitment of RM786 million and were focused on building SMEs‟ capability and capacity (SME Annual Report 2009/2010) in order to enhance their ability to compete in a highly globalised environment.

Given the importance of manufacturing sector as discussed in the previous section, it is believed that Malaysian manufacturers need to become more competitive to enhance Malaysia‟s economic survival in an increasingly challenging regional business and economic landscape (Sun, 2011). As 96.6% of manufacturers are SMEs (Ministry of International Trade and Industry, 2007) more measures are needed to boost competitiveness of manufacturing SMEs and these include taking steps to upgrade their knowledge and skills in order they can face the dynamic global environment rather than merely relying on tax exemptions (Sun, 2011).

In terms of Malaysia Global Competitive Index (GCI) ranking for 2012-2013, Malaysia had dropped four places to 25th position as shown in Table 1.4. Since SMEs represent the majority of businesses in Malaysia, this decline in competitive rankings also reflects the drop in relation to competitiveness of Malaysian SMEs.

This decline is not a good sign for Malaysian SMEs and has sparked the interest of this study to explore new avenues to improve their competitiveness.

Table 1.4

Comparison of Global Competitiveness Index between 2008-2009, 2009-2010 and 2010-2011

Country	Global Competitiveness Index Ranking				
	(2008-2009)	(2008-2009)	(2010-2011)	(2011-2012)	(2012-2013)
Singapore	5	3	3	2	2
Japan	9	8	6	9	10
Hong Kong	11	11	11	11	9
Taiwan	17	12	13	13	13
Malaysia	**21**	**24**	**26**	**21**	**25**
China	30	29	27	29	29
Thailand	34	36	38	39	38
Indonesia	55	54	44	46	50
Philippines	71	87	85	75	65

Source: The Global Competitiveness Report 2009-2010, World Economic Forum, 2009, p.13; The Global Competitiveness Report 2010-2011, World Economic Forum, 2010, p.15; The Global Competitiveness Report 2011-2012, World Economic Forum, 2011, p.15; The Global Competitiveness Report 2012-2013, World Economic Forum, 2012, p.13.

1.2.2 Lack of Tangible Resources

The Malaysian Government acknowledged the importance of SMEs by prioritising the development of their capability and competitiveness as an important national agenda. The SME Annual Report (2009/10) also stated that their competitiveness, in both the domestic and global markets, depended significantly on SMEs‟ willingness to invest and continuously upgrade human capacity and capability. This would involve adopting new methods and best practices, investing in human capital development, subscribing and adhering to globally-accepted standards, adopting new technologies and exploring new markets.

However, one of the challenging issues facing Malaysian SMEs in becoming competitive is their lack of tangible resources in terms of physical and financial capital (Ngah & Ibrahim, 2009) when compared to larger firms. Despite the

challenges faced due to size limitations, SMEs have advantages over larger firms (Ngah & Ibrahim, 2009; Narula, 2004; Noteboom, 1994) and it is considered appropriate to capitalise and focus on the strengths that Malaysian SMEs possess. This is also supported by Ngah and Ibrahim (2009) and Man and Lau (2002) who agreed that by focusing on the inner resources of SMEs this would enable them to emerge as key players, rather than focusing on their inabilities, especially with regards to physical and financial capital. These inner resources which are known as intellectual capital, can be categorised into human capital, structural capital and relational capital (Ngah & Ibrahim, 2009) and they must be capitalised and utilised to achieve competitive capabilities and advantage.

In addition, it would appear that Malaysian SMEs are not paying enough attention to capitalising their intellectual capital Saleh and Ndubisi (2006). Similarly, Chin (2003) also reported that many SMEs place little importance on upgrading the knowledge and skills of their workforce and do not seem to take advantage of the training programs sponsored by the Malaysian Government. This results in them losing out in terms of competitiveness to certain other countries‟ SMEs including Singapore, Indonesia and China. Moreover, not much research is currently being carried out on the extent of intellectual capital being adopted in Malaysia and most studies of intellectual capital are based on an accounting perspective (Ngah & Ibrahim, 2009; Salleh & Selamat, 2007; Bontis et al., 2000).

1.2.3 Lack of Empirical Studies on Intellectual Capital, Organisational Learning Capability and Manufacturing Competitive Capabilities in SMEs Context

In relation to SMEs‟ competitive capabilities, Pilar et al. (2005) reported that there is still much room for improvement on developing competitive capabilities

measurement as there are still certain aspects that have not been sufficiently analysed, for example the multidimensional nature of the measurement construct. In addition, Huang & Wu (2010) stated that there is relatively little empirical research that examines the relationship between intellectual capital and manufacturing competitive capabilities. Therefore, in the context of this research, it would be interesting to examine if a firm‟s intellectual capital can be enhanced through organisational learning capability which in turn leads to better competitive capabilities in SMEs.

Keskin (2006) and Chaston et al. (2001) have also pointed out that there seems to be an apparent lack of empirically validated benefits to SMEs to adopt organisational learning on their firm‟s competitive capabilities. In addition, the majority of studies on competitive capabilities are geared towards larger firms with relatively few studies being done to explore competitive capabilities in smaller firms given that smaller firms tend to be important players in global market (Keskin, 2006; Hitt et al., 2003). Moreover, according to Kunjiapu and Yasin (2010), organisational learning is still a relatively young topic in Malaysia and it is therefore considered to be of great interest to examine this subject in a Malaysian context.

Based on the above consideration, this research examines the impact of intellectual capital on SMEs‟ competitive capabilities and business performance and fills the gap in literature which currently exists with regards to intellectual capital, organisational learning capability and manufacturing competitive capabilities among Malaysian SMEs.

1.3 Research Objectives

This study aims to find empirical evidence in the relationship between intellectual capital, organisational learning capability, manufacturing competitive capabilities and business performance in a single framework. It is believed that intellectual capital is an important resource which needs to be mediated by organisational learning capability in supporting a firm"s manufacturing competitive capabilities that will enhance its business performance. Therefore, this study attempts to meet the following objectives:

1) To investigate whether the three dimensions of intellectual capital influence organisational learning capability.
2) To examine the mediating role of organisational learning capability between intellectual capital and manufacturing competitive capabilities.
3) To determine which of the manufacturing competitive capabilities would have an impact on manufacturing SMEs" business performance.
4) To study the moderating effect of the business environment in relation to dynamism on the relationship between manufacturing competitive capabilities and business performance.

1.4 Research Questions

Based on the research objectives, the following questions are addressed:

1) What are the relationships between the three dimensions of intellectual capital and organisational learning capability?

2) Does organisational learning capability mediate the relationship between intellectual and manufacturers" competitive capabilities?

3) Which of the manufacturing competitive capabilities have an impact on manufacturing SMEs‟ business performance?

4) Does the business environment (dynamism) moderate the relationships between the manufacturing competitive capabilities dimensions and business performance?

1.5 Scope of Study

The research scope was confined to a macro view (between organisations) utlilising cross-sectional empirical examination of the relationship between intellectual capital, organisational learning capability, manufacturing competitive capabilities (that is, competitive pricing, flexible product innovation & quality) and business performance (financial and non-financial) in the manufacturing sector in Malaysia. This research also examined the role of the perceived business environment as a moderator in relation to dynamism between the manufacturing competitive capabilities and business performance. It can be seen that this study is motivated by the quest to answer the question "Does capitalising the availability of intellectual capital via organisational learning capability in SMEs drive up manufacturing competitive capabilities which in turn will lead to better business performance?"

This study focused on SMEs in the manufacturing sector in Malaysia. Data was collected from a survey questionnaire sent to manufacturing SMEs listed in the Federation of Malaysian Manufacturers 2011 and the unit of analysis used was manufacturing SMEs. Responses were only collected from individuals who were actively participating in the management of the business, for example directors, general managers, managers and senior executives. Each of these respondents represented his/her firm when answering the survey questions. As this study is

limited to SMEs in the manufacturing sector in Malaysia it should be noted that the findings and the conclusions drawn from the research are representative of Malaysian manufacturing SMEs only.

1.6 Significance of Study

This study aims to extend the body of knowledge relating to the intellectual capital and the competitive capabilities of SMEs and attempts to provide insights into the practical implications of developing SME competitive capabilities in the Malaysian context. The theoretical contribution of this study includes a better understanding of the strategic importance of intellectual capital and organisational learning capability on SMEs‟ competitive capabilities, an area in which empirically tested studies are scarce, especially in the Malaysian context. In addition, this study provides theoretical contribution to help researchers gain an in-depth knowledge in the area of organisational learning and competitive competencies in SMEs, particularly those in the manufacturing sector. Furthermore, this study also aims to offer practical contributions which may prove beneficial to practitioners and policy-makers who wish to improve SMEs‟ competitiveness and performance.

1.6.1 Theoretical Contributions

This comprehensive review of relevant literature has the potential to make a significant contribution in five areas. First, this research helps to fill the gap in research in the domain of SMEs as most research and theory building is focused on larger organisations and ignores new ventures and SMEs (Leitch et al., 2010; Zahra et al., 2006). There is a dire need to fill this gap in literature given the importance of SMEs on the wellbeing of a nation and this research attempts to contribute to the literature by examining and analysing SMEs through the lens of intellectual capital,

organisational learning capability, manufacturing competitive capabilities, and perceived business environment.

This study also contributes to by extending the traditional Resource Based View (RBV) theory through empirical evidence with regard to the conceptual link between intellectual capital, competitive manufacturing capabilities, organisational learning capability and business performance by proposing a knowledge-based dynamic capability framework. By synthesizing and put forward a knowledge-based dynamic capability framework enabled some of the shortcomings of RBV to be addressed. One of RBV weaknesses is it is insufficient to explain how resources changes a period of time (Eisenhardt & Martin, 2000). In addition, both RBV are general in nature (Kraaijenbrink et al., 2010). By viewing knowledge as a dynamic capability enables a clearer picture on how organisation can achieve competitive capabilities by first needing a capability that enables them to create, renew, and reconfigure their resources. The findings of this research support this proposition and provide insights that intellectual capital and organisational learning capability as a knowledge based capability is essential in boosting manufacturing competitive capabilities which in turn would have an impact on the overall business performance of an enterprise.

Thirdly, this study contributes to the literature of dynamic capabilities which is an extension of RBV. Barreto (2010) and Zahra et al. (2006) concluded that this subject is still in its infancy and literature on this subject is still riddled with inconsistencies, overlapping definitions and contradictions and seems to be moving in disparate directions. In addition, Helfat and Peteraf (2009), and Cepeda and Vera (2007) added that empirical studies on dynamic capabilities are still scarce and little effort has been made in this area. Furthermore, prior researchers have given scant

attention as to how dynamic capabilities develop in SMEs that have limited resources in building and integrating diverse capabilities (Zahra et al., 2006). This research therefore attempts to fill this gap in literature by extending the dynamic capability theory through examining how organisational learning capability can act as a dynamic capability in enhancing manufacturing competitive capabilities.

Fourthly, this study contributes to literature by integrating the view of RBV, dynamic capability and knowledge based view that links the organisational process. Through the framework proposed in this study enabled a clearer view how organisational resources (intellectual capital) can change overtime and how it can be further enhanced thorough the ability to create, integrate, transfer and use knowledge in an ongoing basis (Teece, 1998). This is reflected through the dynamic capability of a firm and manifested through knowledge based capability namely organisational learning capability and how this would give an impact on manufacturing competitive capabilities. It would appear that not many researches integrate these three theories simultaneously through examining knowledge capability (organisational learning capability) as a dynamic capability which are crucial for organisations to reinvent and change for their survival. In this sense, this study overcomes these shortcomings by successfully incorporating all the three different theories to enable a more comprehensive view of how manufacturing SMEs‟ resources can be capitalised.

Fifthly, this study contributes to the literature of organisational learning. Review of the literature on organisational learning highlights the dearth of studies and empirical research in this area (Hsu & Fang, 2009; Real et al., 2005; Simone, 1997) and even fewer researchers examine the importance of the mediating role of organisational learning capability in SMEs. It was hypothesised in this study that intellectual capital may not realise its fullest effect on manufacturing competitive

capabilities without the role of organisational learning capability as a mediator. This is because intellectual capital as a resource would be better capitalised if SMEs have learning capability that encourages all employees to learn to use the knowledge gained in order to achieve the firm‟s strategic goals. However, this view has not yet been rigorously examined, especially in the SME context, and therefore the findings of this study will be able to expand the current existing literature on organisational learning.

1.6.2 Practical Significance

This research hopes to uncover a number of key relationship management issues concerning the importance of intellectual capital and organisational learning in the Malaysian manufacturing SME context which are useful to SME manufacturing owners and managers. The competitive nature of the manufacturing sector should provide an appropriate field for researchers and managers to understand the aspects that bring about successful business performance when examined from an integrated view of RBV, Knowledge Based View (KBV) and Dynamic Capability. In this sense, following the RBV model, there is a need to examine the relevance of intellectual capital which, when understood and incorporated in the company, could improve the manufacturing competitive capabilities. This in turn may have a positive impact on business performance and could give manufacturing SMEs a competitive edge over their competitors in terms of manufacturing competitive capabilities and overall business performance.

It is believed that the current rate of business globalisation, the rapid changes in manufacturing technologies and shorter product life cycles have wielded strong impacts on the manufacturing industry (Rose et al., 2008). This should provide an impetus for SME manufacturing to look beyond the short-term goals of improving

profit margins to achieving long-run sustainable manufacturing competitive capabilities. Therefore, research is warranted if it can help to overcome the challenges of successfully creating and managing manufacturing competitive capabilities. Understanding the connected processes of how intellectual capital can be utilised and enhanced through organisational learning to improve manufacturing competitive capabilities and overall business performance could assist decision-makers in manufacturing SMEs to be sensitive towards the invaluable intellectual capital resources that they already have and hopefully help them to develop these resources in order to strengthen the competitive position of their companies.

In addition, if the findings of this research support the proposition that intellectual capital improves manufacturing competitive capabilities and overall business performance of manufacturing SMEs, it would help to boost the GDP of Malaysia as GDP can be calculated by totaling the consumptions, investment, government spending and net exports (McEachern, 2009). A strong manufacturing sector will enhance consumptions, investments and net exports and will help to drive up Malaysia‟s GDP.

In this context, this research has significant value, namely (1) an empirical study on intellectual capital from a RBV, KBV and dynamic capability view in SME manufacturing would extend existing academic knowledge, (2) insight gained from an investigation of intellectual capital and organisational learning capability would provide some guidelines and suggestions for SME owners and managers to make well-informed decisions on managing their resources, and lastly, (3) this study also hopes to shed some light on key relationships in management issues concerning resources management issues in the SME manufacturing sectors in Malaysia. This

may prove useful to practitioners and policy makers in formulating strategies, policies and programs in supporting and developing SMEs.

The findings of this research provide a practical contribution to practitioners and policymakers and they support the proposition that intellectual capital and organisational learning capability improve manufacturing competitive capabilities and the performance of SMEs which enables practitioners and policy makers for SME businesses to strengthen the competitive position of their firms.

1.7 Organisation of Thesis

This chapter introduces the current scenario of manufacturing SMEs in general. It presents the background and the challenges facing Malaysian manufacturing SMEs and it discusses the relevance of this study in the context of Malaysian manufacturing. The research problems are discussed together with the research objectives and questions. This chapter also presents the operationalised key terms for variables that are being studied in this research. The significance and scope of this study are also elaborated on.

Chapter 2 is a literature review. The literature is drawn from past literatures on intellectual capital, organisational learning and their different perspectives and organisation manufacturing competitive capabilities and business performance. Key concepts derived from previous studies are discussed and the research framework and research hypotheses are also introduced and discussed.

Chapter 3 is on methodology. In this chapter, the research methodology including the research design, data collection methods, questionnaire and measurement, population of study, data collection process and data analysis tools are discussed.