THE LEARNING STRATEGIES AND CAPACITIES OF SMEs:
AN EXPLORATORY STUDY IN CHINA

By

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Of

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STATEMENT OF ORIGINALITY

I hereby declare that this dissertation contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my dissertation, when deposited in the University library, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968.

Signed: ______________________

Name of the student:  Rowland Kwok Ying Li
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<tr>
<td>CoP</td>
<td>Community of Practice</td>
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<td>CASME</td>
<td>Chinese Association of Small and Medium-sized Enterprises</td>
</tr>
<tr>
<td>EACSME</td>
<td>European Association of Craft Small and Medium-sized Enterprises</td>
</tr>
<tr>
<td>ERP</td>
<td>Enterprises Resource Planning</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FL</td>
<td>Firm Learning</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GNP</td>
<td>Gross National Product</td>
</tr>
<tr>
<td>IA</td>
<td>Internal Audit</td>
</tr>
<tr>
<td>IACSME</td>
<td>International Association of Chinese Small and Medium-sized Enterprises</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>KM</td>
<td>Knowledge Management</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium-sized Enterprises</td>
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<tr>
<td>SOEs</td>
<td>State-owned Enterprises</td>
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<tr>
<td>UK</td>
<td>United Kingdom</td>
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<td>USA</td>
<td>United States of America</td>
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Abstract

Small and medium-sized enterprises (SMEs) played a critical role in China’s transformation into a market economy, as thousands of state-owned enterprises closed down. Firm knowledge acquisition in Chinese SMEs has increasingly attracted scholarly attention, as it is a critical element of their business performance. However, none of the previous studies have examined how learning strategies and capacities influence Chinese SMEs’ tacit and explicit knowledge acquisition to improve their business performance. This study is designed to fill that gap by exploring SMEs’ knowledge acquisition from both human and social capital perspectives and investigating the impact of learning capacities on the learning process. Therefore, the study proposes a conceptual framework that includes human capital learning strategies (informal and formal learning), social capital learning strategies (business, social, and personal network ties), and learning capacities (IT system support, owners’ attributes and role, and financial capability). These factors have a significant impact on knowledge acquisition.

To examine the framework, qualitative in-depth and interview-driven research was conducted on four sample Chinese SMEs from the non-manufacturing sector. Sixteen interviews, including those with owner-managers and senior management, are the study’s data sources; they are supported by site observations and firms’ secondary data.

The conceptual framework of the present study contributes to the SME literature in emerging economies. The study confirms that knowledge acquisition, especially that of tacit knowledge, occurs mainly through informal learning (experience) and government,
business, and social network ties. Meanwhile, learning capacities have a moderating effect on the learning process in SMEs. The analysis of learning capacities offers valuable insight into why SMEs find it difficult to acquire tacit knowledge and to articulate and store the firm’s explicit knowledge. The proposed framework also makes practical contributions. It assists SME owners in managing their internal resources (human and financial) and external resources (social networks) to develop their competitive advantages and grow their businesses by acquiring knowledge.
Chapter 1- Introduction

1.1) Introduction

Small and medium-sized enterprises (SMEs) have played an essential part in China’s transformation into a market economy. This business sector is a key contributor to China’s economic growth and has created a business model for the country’s newly transformed socialist market economy (Wang et al., 2009; Yuan and Vinig, 2007). Many business operations in China begin as SMEs then expand to many sectors (Li and Rowley, 2008). Small and medium-sized enterprises became China’s major employment providers after millions of people who were laid off by state-owned enterprises (SOEs) joined SMEs (Wang et al., 2009). The learning process that Chinese SMEs have been going through has attracted increasing attention from academic and business researchers (Chen and Li, 2009; Jiao et al., 2009; KMC, 2009; Tian, 2009a; Tsai, 2007; Wang et al., 2009). After two decades of rapid economic growth, Chinese SMEs face the challenge of growing under the constraints on management and financial resources that will affect the development of the Chinese economy (Chen and Li, 2009).

Previous studies have shown that the learning capabilities of SMEs can influence their business performance. However, SMEs have met difficulties in developing their learning capabilities (Chen and Li, 2009; Chiu, 2008; Franco and Haase, 2009; Macpherson and Holt, 2007; Wang et al., 2009). According to China’s Enterprises Survey System (CESS) report on 1,000 privately owned enterprises, 93% of SMEs are beset by insufficiency in financial resources and local government protection—a condition that has bankrupted thousands of Chinese SMEs since the beginning of the year 2000 (CESS, 2005). Li et al. (2008) argue that this phenomenon is due to the impact on performance of the firms’ insufficient capabilities. Thus, the success of a firm
depends on its continuous leaning, which improves its capability and drives sustainable growth (Jiao et al., 2009; Li and Rowley, 2008; Pena, 2002).

As firm learning is a critical element of business performance, SMEs have to manage their learning process proactively (Michna, 2008). From a managerial perspective, firm learning is defined as the acquisition of knowledge or skills that leads to firm effectiveness. In a knowledge-based society, knowledge is a key element in economic development (Franco and Haase, 2009), and it has to be acquired by learning. Thus, a firm’s staff needs to react to learning requirements quickly (Guadamillas et al., 2008). Through learning, firms gain the knowledge and skills they need to improve their business performance (Spicer and Sadler-Smith, 2006). Knowledge acquisition and firm capability through learning are acknowledged by many scholars and business practitioners as major sources of a competitive edge (Franco and Haase, 2009; Hoy, 2008; Lopez et al., 2005; Matlay, 2000; Michna, 2008; Paige, 2002; Spicer and Sadler-Smith, 2006; Wang et al., 2009).

1.2) Aim of the Research

Successful organisations are aware that the main challenge they face is not a ‘low-cost economy’ but a ‘knowledge-based economy’ (Franco and Haase, 2009; Guadamillas et al., 2008; Tsai, 2007; Wang et al., 2009). Knowledge and learning always play essential roles in economic development. If companies want to obtain more knowledge, they need to learn (Jiao et al., 2010; Wang et al., 2009).

Firm learning (FL) has been widely discussed in the literature. The relationship between FL and firm performance (sales revenue growth, for the purpose of this study) has been
widely recognized in both academia and business (Franco and Haase, 2009; Guadamillas et al., 2008; Huang et al., 2010; King, 2008; Wang and Casimir, 2007; Wang et al., 2009). During the past decade, a number of scholars have studied firm learning in small and medium-sized enterprises (Cope, 2003; Cope and Watts, 2000; Hutchison and Quintas, 2008; Jonas and Tell, 2009; McAdam et al., 2010; Paige, 2002; Wang et al., 2009; Zhang et al., 2006). Cope (2003) examines owner-manager learning by focusing on the network theory. More recently, Jonas and Tell (2009) investigate managerial learning and its implications for SME learning. Wang et al. (2009) discuss the acquisition of tacit marketing knowledge by Chinese enterprises.

The key issue is how Chinese SMEs acquire knowledge to support businesses growth (Peng et al., 2007; Wang et al., 2009). Chinese SMEs are keen on obtaining new knowledge through various learning and networking activities, which will help them survive and grow. It is known that firm learning brings in new knowledge, which provides SMEs with a competitive edge (Burrows et al., 2005; Peng et al., 2007). However, previous research on learning focuses on Chinese high-tech manufacturing firms, paying little attention to non-manufacturing SMEs, such as wholesaling and trading. The latter account for 35% of total SME output and 30% of total SME employment—about 20 million people (Cao and Chen, 2010; Leung and Sun, 2008; Sharif and Huang, 2010; Thomas, 2007; Wu and Leung, 2005; Xu et al., 2008).

A review of the literature reveals that historical and social forces are largely to blame for the inadequate social support in the acquisition of resources needed to run an SME in China’s newly developing market economy (Burrows et al., 2005). Not only do Chinese SMEs need multifunctional business knowledge (such as marketing and
financial knowledge) to maintain their business, but also an awareness of business
trends in the international marketplace (Jiao et al., 2010).

Likewise, little research has been conducted on how Chinese SMEs develop their
learning strategies, especially for tacit knowledge acquisition through human and social
capital (Jiao et al., 2010; Wang et al., 2009). Moreover, research on Chinese SME
knowledge acquisition has overlooked certain factors that affect the learning capacities
of Chinese SMEs, such as IT system support, the owner’s attributes and role, and
financial capability (Cao and Chen, 2010; Tsai, 2007).

To fill these gaps in the literature, this study examines the human capital strategies
(formal and informal learning) and social capital strategies (external and business
networks) affecting the development of Chinese SMEs’ learning strategies. Another
point of consideration is how the IT system support, owner’s attributes and role, and
financial capability of a Chinese SME affect its learning capacities. The study’s findings
contribute to the literature by developing a new conceptual framework for the learning
strategies and capacities of Chinese SMEs in their acquisition of knowledge.

1.3) Research Focus and Purpose

A company’s growth and performance relies on its ability to maintain a competitive
advantage that can be enhanced by new knowledge (Guadamillas et al., 2008; Honig,
2001; Matlay, 2000; Paige, 2002; Tsai, 2007; Wang and Casimir, 2007). Small and
medium-sized enterprises need to build efficient learning processes to support
knowledge acquisition (Franco and Haase, 2009; Guadamillas et al., 2008; Macpherson
and Holt, 2007). Wang et al. (2009) demonstrated the importance of social capital in the
acquisition of tacit knowledge of Chinese SMEs. Intangible knowledge, the ‘know-how’ of tacit knowledge, is vital to a firm and the continuous development of its competitive edge (Matlay, 2000; Paige, 2002). Thus, to ensure their survival and growth, Chinese SMEs need both tangible knowledge and the intangible knowledge accumulated through personal experience (Wang et al., 2009).

Macpherson and Holt (2007) argue that many analytical frameworks lack a solid specification for the learning processes and mechanisms of SMEs. The strategic role of human and social capital in learning is widely accepted (Guadamillas et al., 2008; Honig, 2001; Wang et al., 2009), but few studies have examined the learning capacity factors, such as IT (information technology) system support, the owner’s attributes and role, and financial constraints, in SME learning. Chinese SMEs consider the learning process, especially the accumulation of tacit knowledge, as crucial since most of them rely on tacit knowledge to run their businesses (Li and Matlay, 2006; Li and Rowley, 2008; Tian, 2009a). In its integrated conceptual framework concerning the knowledge acquisition of Chinese SMEs, this study argues that human and social capital strategies might influence knowledge acquisition and that the IT system, owner’s attributes, and financial capability (referred to hereafter as ‘learning capacities’) also affect knowledge acquisition and the learning process. In summary, the following factors strongly affect Chinese SMEs’ knowledge acquisition:

1) The influence of human capital strategies
2) The influence of social capital strategies
3) The IT system support’s role in explicit knowledge acquisition
4) The SME owner’s attributes and role
5) Financial resource constraints affecting the learning process

1.3.1) Definition of Key Research Terms

To ensure clarity, various terms adopted from the literature are defined below.

<table>
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<th>Term</th>
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<tr>
<td>Human capital</td>
<td>The ability derived from formal education, knowledge derived from working experience, and industrial knowledge derived from on-the-job training (Madsen et al., 2003)</td>
</tr>
<tr>
<td>Social capital</td>
<td>The network of social connections that facilitate collective action for learning and exchanges (Nousala, 2006)</td>
</tr>
<tr>
<td>IT system support</td>
<td>Personal computers, a firm’s computer system, Internet and e-mail use, explicit knowledge, and the codification of knowledge (Nousala et al., 2010; Paige, 2002)</td>
</tr>
<tr>
<td>Owner’s attributes and role</td>
<td>Owner’s attributes – the owner’s personal experience and formal educational background (Jiao et al., 2010); owner’s role – the personal perspectives of the owner (Sirmon and Hitt, 2003);</td>
</tr>
<tr>
<td>Financial capability</td>
<td>The financial resources invested or allocated by the company to support firm learning (Holsapple and Joshi, 2000; Jun and Cai, 2003).</td>
</tr>
<tr>
<td>Informal learning</td>
<td>Experience-sharing and learning-by-doing, such as casual dialogues and verbal discussions (Orlikowski, 2002)</td>
</tr>
<tr>
<td>Formal learning</td>
<td>Formal lectures or training conducted by senior managers, academic institutions, industrial associations, and government and business partners, in contexts such as regular meetings, educational courses, seminars, and conferences (Alavi and Leidner, 2001)</td>
</tr>
<tr>
<td>Learning capability</td>
<td>A firm’s ability to manage its specialized resources for learning, such as the owner’s readiness to learn and support the learning of others (Presekill and Boyle, 2008).</td>
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1.3.2) Research Questions

In accordance with the literature review and the research gap discussed earlier, this study aims to investigate the learning strategies and capacities of Chinese SMEs by examining the five research questions below.

Q1) How do human capital learning strategies affect the knowledge acquisition of Chinese SMEs?

In reviewing the literature, I found that in the majority of SMEs, human capital is a major element in knowledge acquisition (especially that of tacit knowledge), using both formal and informal methods (Guadamillas et al., 2008; Honig, 2001; Jiao et al., 2010). Thus, this question examines the role of human capital learning strategies in influencing the knowledge acquisition of Chinese SMEs.

Q2) How do social capital learning strategies affect the knowledge acquisition of Chinese SMEs?

It has been proven that a high level of social capital and strong ties can assist firms in acquiring new knowledge, especially tacit knowledge, and that weak ties create broad knowledge access. A social network is the collection of government, personal, and business ties that impact knowledge acquisition in Chinese SMEs (Simmie, 2002; Yli-Renko et al., 2001). Thus, this question examines the role of social capital learning strategies in influencing Chinese SMEs’ knowledge acquisition.

Q3) How do IT systems influence the knowledge acquisition of Chinese SMEs?

An IT system supports the acquisition of explicit knowledge and can help the
integration and application of knowledge by codifying and automating operation routines (Alavi and Leidner, 2001). Hence, this question examines the influence of IT system support in the knowledge acquisition of Chinese SMEs.

**Q4) How do a firm owners’ attributes and roles in learning affect the knowledge acquisition of Chinese SMEs?**

Since the initiative to obtain knowledge emanates from the SME owner, he or she exerts a strong influence on the firm’s learning process (Holsapple and Joshi, 2000; Honig, 2001; Pan and Scarbrough, 1998; Wang and Casimir, 2007). In a Chinese SME, the owner controls the firm’s information flow and knowledge sources, so that his or her human capital background also plays an essential part in knowledge acquisition (Jiao et al., 2010; Tsai, 2007). It is likewise known that business growth relies on the owner’s personal business experience (Wang et al., 2009). Hence, this question investigates how owner’s attributes and role affects knowledge acquisition.

**Q5) How does an SME’s financial capability impact its learning process?**

Financial resources greatly affect the quality of a firm’s learning. Therefore, resources are a critical factor for an SME to consider when developing a learning process (Holsapple and Joshi, 2000; Jun and Cai, 2003; OECD, 2002). Chinese SMEs do not typically allot a budget for training and development (Tian, 2009b), and this may affect their acquisition of both tacit and explicit knowledge. This question investigates the influence of financial constraints on the learning processes of Chinese SMEs.
1.3.3. Conceptual Framework

This study is exploratory and develops a comprehensive conceptual framework (see Figure 1.3.1) on the basis of the findings.

**Figure 1.3.1: Conceptual Framework for SME Learning and Performance, Based on Empirical Data**

This new framework describes the interaction between human and social capital strategies in Chinese SME knowledge acquisition and identifies the key learning capacity factors of knowledge acquisition, such as IT system support, the owner’s attributes and role, and financial capability.

It is essential for SMEs to manage and consider the strategies and factors described in the new framework when crafting their learning strategies. Owners and top management staff should ask themselves a number of questions based on these factors: How can we
develop our learning strategies, what are the key factors that affect this process, and what constraints do we need to address? How will our human and social capital strategies facilitate knowledge acquisition and sharing? How do such factors as the IT system, owner’s attributes and role, and financial capability affect learning capacities? Knowledge acquisition and an understanding of how learning strategies improve performance have become key aspects of the survival and success of SMEs in China.

1.4) Implementation of the Research

Previous studies on SME learning strategies have used both qualitative and quantitative approaches. As this study has collected in-depth data for analysing the learning strategies and capacities of the SME sector, the interpretivist paradigm and a qualitative approach through in-depth interviews were adopted (Bryman and Bell, 2003).

The purpose of the study is to explore the learning strategies and insights of SME owner-managers within China’s context. Qualitative research is more appropriate than quantitative research in obtaining these insights; data on the SME sector is collected through in-depth interviews, which provide rich and substantial perspectives on the process and application of the SMEs’ learning strategies. Patton (2002) points out that qualitative research is more appropriate in explaining social phenomena. Another reason for choosing qualitative research is the fact that the research subject relates to human behaviour, for which it is inappropriate to use statistical analysis. The qualitative approach always asks why, how, and in what way (Denzin and Lincoln, 2000).

I selected two small and two medium-sized non-manufacturing firms from the member list of the Chinese Association of Small and Medium-sized Entrepreneurs (CASME). A
total of 16 interviewees—four from each firm—agreed to participate. The selection took into consideration the nature of business and firm size. The four firms were first contacted by telephone to obtain their preliminary consent and confirm their firm background and size criteria.

The participants are owners and senior managers who handle decision making in their firms. At least one hour was devoted to each interview, and a Dictaphone was used for on-site recording. The companies were visited after the interviews to increase the reliability of the data collection.

The data collection technique was used in-depth interviews, since gaining a thorough understanding of firms’ learning phenomena was needed for the qualitative research (Baker, 2006). In-depth interviews allow the exploration of personal feelings and are a more organised way of collecting data on personal opinions and experiences than any other method, including the focus group (Rao and Perry, 2003).

A semi-structured questionnaire was used to enable the interviewer to ask impromptu follow-up questions any time during the interview (Bryman and Bell, 2007). Moreover, open-ended questions during the in-depth interview can pique the interviewees’ interest and encourage them to voice their feelings more freely (Bryman and Bell, 2007).

1.5) The Significance of this Research

The acquisition of new knowledge is the next step in the evolution of Chinese SMEs in the wake of the country’s rapid economic growth. A crucial point for Chinese SMEs to consider is the way they acquire new knowledge in order to transform or strengthen
their operation model under the constraints of limited resources. As King (2008) stresses, ‘transformation is taking action to go beyond the current situation’. In this study, I have tried to bring together the acquisition of explicit and tacit knowledge, learning strategies (for human and social capital), and learning capacities into one unified conceptual framework within which SME learning can be examined. The proposed framework was developed in pursuit of two objectives.

First, the proposed framework gives firm management a practical set of guidelines with which to plan their learning strategies for knowledge acquisition in order to face new operational challenges. Second, previous studies have focused on high-tech learning in the manufacturing sector (Cao and Chen, 2010; Leung and Sun, 2008; Sharif and Huang, 2010; Thomas, 2007; Wu and Leung, 2005). The study contributes to the literature of SME learning in emerging economies as regards adopting effective human and social capital learning strategies and managing learning capacities in order to strengthen firm performance. Instead of focusing on SMEs in the manufacturing sector, this pioneering study looks at the contribution of China’s wholesale and trading SMEs to learning studies by proposing a conceptual framework that enriches the literature on SME entrepreneurial learning in the emerging economy. This framework also gives researchers a series of variables (including human and social capital learning strategies, and learning capacities) that can be used to study the design of SME learning. I was motivated to develop this conceptual framework for SME owners and researchers because there is no integrated framework that could help SMEs (especially those in China) systematically plan and implement the acquisition of knowledge, including explicit and tacit knowledge. None of the literature reviewed seems to have considered the broader firm learning contexts concerning the development of the learning processes.
Although applying this framework will need additional thought and consideration, the outcomes justify the time invested.

Furthermore, relating to the second objective, it is appropriate to build a base about the knowledge acquisition of SMEs through empirical research, especially in China. It is hoped that this proposed conceptual framework represents an initial step in designing future SME learning studies on how these factors affect the quality of SME knowledge acquisition. Many questions remain to be answered, and SME learning is an area ripe for exploration.

1.6) Outline of the Dissertation

This study is organised into five chapters (see Figure 1.6.1). Following this introduction, a literature review is conducted, then research questions and a research framework are developed. Chapter 2 contains a discussion of SME learning strategies, focusing on learning in Chinese SMEs. In chapter 3, the methodology and data collection approach is discussed in detail, drawing from the research framework that was taken up in the literature review. The justification for the qualitative method and in-depth interview approach is also presented. Chapter 4 features an analysis of the data collected through in-depth interviews, and the key findings. The highlight is a proposed conceptual framework, which was constructed from the findings. Lastly, chapter 5 contains a discussion of the study's findings and implications.
Figure 1.6.1: Dissertation Outlines

Chapter 1- Introduction
- Purpose of study
- Justification of study

Chapter 2- Literature Review
- Learning strategies in SMEs
- Learning strategies in Chinese SMEs
- Research framework and questions

Chapter 3- Methodology
- Qualitative approach
- In-depth interviews

Chapter 4- Findings and Analysis
- Interview data analysis
- Development of conceptual framework

Chapter 5- Discussion and Conclusion
- Theoretical implication
- Managerial implication
- Limitations and recommendation
1.7) Conclusion

This chapter illustrates the purpose of the dissertation by providing the research background, problem and focus, and questions. This chapter also provides the rationale for using qualitative methodology for the research, which is explained in detail in chapter 3. Finally, the significance of the research illustrates the contribution of this dissertation to academics and businesspeople.
Chapter 2 - Literature Review

2.1) Introduction

During the past decade, a number of studies focused on organisational learning in small and medium-sized enterprises (Cope, 2003; Cope and Watts, 2000; Hutchison and Quintas, 2008; Jonas and Tell, 2009; McAdam et al., 2010; Paige, 2002; Wang et al., 2009; Zhang et al., 2006). Cope and Watts (2000) criticize past research for focusing on the individual. Cope (2003) emphasizes the importance of the beliefs and values that affect the learning process, and examines owner-manager learning from the network theory perspective. More recently, Hutchison and Quintas (2008) scrutinise the knowledge management system in SMEs. Jonas and Tell (2009) examine managerial learning and its implications for SME learning. Wang et al. (2009) discuss the tacit acquisition of marketing knowledge of Chinese enterprises. McAdam et al. (2010) study the SMEs’ implementation of innovation.

Since business information is still tightly regulated by the government, traditional Chinese SMEs face great challenges (Jiao et al., 2009; Wang et al., 2009). The growth of the SME business model underscores its increasing importance to China’s economic development; Chinese SMEs now absorb most of the employees being laid off from state-owned enterprises. In spite of the rapid growth of Chinese SMEs, however, many management issues concerning their knowledge acquisition are still unknown (Jiao et al., 2010; Wang et al., 2009).

As mentioned earlier, Chinese SMEs face grave constraints in institutional and social support, and financial resources (Tang et al., 2008)—a situation that makes it difficult for them to obtain intangible business knowledge. The most practical way for them to
acquire tacit knowledge is through their own resources, such as their human and social capital (Wang et al., 2009; Zhang, 2010).

This chapter discusses the learning strategies of SMEs, their development in China, and the factors affecting the development of their learning strategies. The research framework and research questions will also be discussed.

2.2) Firm Learning

Few systematic studies had been conducted on firm learning before the publication of Peter Senge’s *The Fifth Discipline* in 1990. The concept of firm learning can be traced back to the 1960s, when Cangelosi and Dill (1965) identified the environmental, organisational, and human factors that affect learning by studying the interactions between individual and firm learning. In the 1980s, studies by De Geus (1988) and Romer (1986) directed the attention of business to the importance of systematically studying the learning process.

Since the 1990s, scholars have been trying to define the phenomenon of firm learning. Conventionally, FL has been defined as a result rather than a dynamic process (Lieberman, 1987), though many studies have acknowledged its complexity. Sher and Lee (2004) and Ipe (2003) use the terms ‘learning’ and ‘adaptation’ to explain the process by which organisations adjust to their environments.

Habaradas (2009) explains firm learning from different perspectives. From the cognitive perspective, FL is the totality of an organisation's individual learning processes; from the behavioural perspective, the application of learning; from the technical perspective,
the acquisition and interpretation of information received from inside or outside the company; and from the social perspective, social interaction and working practice. Paige (2002) describes firm learning as the process by which a company tries to respond to environmental changes through a series of learning activities.

As an integrative concept, firm learning includes the individual, team, and organisational levels of analysis. Employees on different levels of the organisational structure have to deal with a large volume of information outside their expertise (Matlay, 2000). Kim (2002) argues that proper strategies and tools are needed to facilitate the integration of individual knowledge into the broader organisational level. Campbell and Cairns (1994) state that individual learning is a prerequisite for organisational knowledge acquisition and transfer. Crossan et al. (1999) evaluate strategic learning by classifying it into three learning levels: individual, team, and organisation. Meanwhile, many studies have also discussed the relationship between firm and individual learning. Ipe (2003) says that new knowledge created in an organisation ought to be available for sharing and transfer to all of its members. Birdthistle (2006) describes organisational learning as the conversion of individual knowledge into organisational knowledge.

Previous firm learning studies have discussed the organisational behaviour perspective (Cyert and March, 1992; Huber, 1991). They propose that FL is a process that enhances information transfers and improves the learning by which adaptation to environmental changes occurs. A firm acquires new knowledge by transforming its current experience in order to improve future performance (Argyris and Schon, 1996; Senge, 1990). Fiol and Lyles (1985) define firm learning as the exploration of the relevant skills and knowledge obtained from experience in order to improve the organisation’s competitive
advantages and performance.

Conceptually, FL is typically described as consisting of two aspects. The first flows from the study of the relationship between individual and firm learning: learning relies heavily on individual knowledge, especially that of the SME owner and senior managers (Wiklund and Shepherd, 2003). The second concerns the distinction between single-loop and double-loop learning (Guadamillas et al., 2008; Habaradas, 2009; Matlay, 2000; Rao and Perry, 2003). Single-loop learning occurs through an organisation’s correction of routine procedures by trial-and-error; it appears to be the main learning approach for small organisations (Matlay, 2000).

Rao and Perry (2003) argue that individual learning relies not only on perception, experience, and intelligence, but also on the learning environment. Using the experiential learning theory, Kolb (1984) concludes that learning happens when individuals convert their acquired experience into new knowledge. Kim (2002) describes organisational learning as being more complicated and dynamic than individual learning, as it involves the complex process of transferring individual knowledge into group knowledge. Lopez et al. (2005) list two ways by which learning can occur in an organisation. One happens through the learning of its current members and the other, when new members are recruited who possess new knowledge that the organisation needs. The diagram below summarizes these levels of learning.
Argyris and Schon (1996) describe three types of learning: single-loop, double-loop, and deuteron. Single-loop learning refers to the act of correcting deviations in a company strategy; effectiveness is its key measure of success. Probst and Buchel (1997) call single-loop learning ‘adaptive learning’ and describe it as the process by which a company makes changes according to its environment. Perren and Ram (2004) observe that decisions in single-loop learning rely mainly on observation, rather than two-way communication. Matlay (2000) discusses double-loop learning as a way of enhancing a company’s competitive advantages and knowledge base by analysing problems and making appropriate recommendations for strategies and policies. Senge (1990) argues that double-loop learning leads to innovation, while the single-loop leads mainly to imitation. Double-loop learning occurs mainly through reviews of the existing models and encourages the innovative ideas that lead to improvements. For Argyris and Schon, the highest learning level, deuteron learning, is a company’s ability to learn how to learn. Probst and Buchel (1997) define deuteron learning as the ability to understand
single-loop and double-loop learning while incrementalizing them. Deuteron learning is the use of knowledge after interpreting its relevance for the company.

2.3) SME Learning

It is commonly recognized that SME knowledge is obtained from the experience and tacit knowledge accumulation of individuals (Jiao et al., 2010; Hoy 2008). Nousala et al. (2006) found that SMEs’ decision making hinged mainly on personal judgments and existing knowledge. Franco and Haase (2009) show that the learning of SME managers focused on the processes of personal negotiation and argument. They also show that most of the existing knowledge acquired by SMEs can not be replicated (Franco and Haase, 2009; Wong and Radcliffe, 2000).

Some studies on SME knowledge adopt Barney’s (1991) resource-based perspective. Here, firm performance depends on the owners’ ability to incorporate the commercial knowledge and working experience by which they conduct their firms’ daily activities. It is argued that this knowledge resource is extremely important to SMEs (Yli-Renko et al., 2001). Wiklund and Shepherd (2003) say that it is highly risky for an SME management team to possess little industry-related knowledge or relevant experience. Minniti and Bygrave (2001) point out that the risks to SMEs resulting from inadequate knowledge exist not just at the start-up stage but throughout the firm’s lifetime.

Learning in SMEs has been discussed by non-governmental organisations (ABS, 2000; CASME, 2009; European, 2003; OECD, 2002). The Australian Bureau of Statistics (ABS) found that fewer than half of Australia’s SMEs are involved in training (ABS, 2000). Records show that the failure rates for SMEs are high in Australia, especially
during the start-up stage (ABS, 2000). In China, CASME (2009) found that the SME failure rate reached double digits in the past decade. Insufficient training and the lack of relevant experience in specific industries have been identified as the main factors in SMEs’ failures (CASME, 2009). European (2003) suggests that continuous training has to be offered to the entire SME workforce—the owners and both the qualified and less qualified employees. A survey of developing countries conducted in 2003 by the Organisation for Economic Co-operation and Development (OECD) showed that SMEs are significantly constrained by the failure of formal education systems to keep up with business development, and that there is an urgent need for SMEs to participate in learning and training programmes (OECD, 2002).

Various reasons have been adduced for the lack of SME participation in learning and training, such as resource constraints and the inadequate attention paid to SMEs’ learning preferences (Dalley and Hamilton, 2000; Hill and Fujita, 1996). Unlike in large companies, learning in SMEs occurs despite limited resources and restricted firm structures (Pawlowsky, 2001). Learning processes in SMEs have attributes belonging to both entrepreneurial and firm learning, as the scope of SME businesses ranges from individual entrepreneurs to firms (Cope, 2003).

Davenport and Prusak (2000) argue that SMEs lack a systematic learning approach to formulating strategies, learning, and decision making. The paternalistic entrepreneurial culture of SMEs resists the creation of formal company policies for daily operation, as the information flow is normally controlled by the owner, especially in small firms (Penn et al., 1998). Birdthistle (2006) stresses that SME owners’ and managers’ attitudes to and abilities in learning strategies are crucial. Positive attitudes are more likely to
enhance the learning process and use formal training as the key learning strategy. In Vinten (2000), more than 80% of SME respondents were concerned about the strategic role of training in their company, and most of them emphasised that continuous training was crucial to staff and firm improvement. Honig (2001) also identifies a discrepancy in learning strategies between intrapreneurs and entrepreneurs among Swedish SMEs. Intrapreneurs prefer to use codified procedures and internal networks, while entrepreneurs prefer unstructured, flexible processes and external network approaches.

It is also argued that SMEs require a broader and wider range of working skills than do large firms; therefore, SME employees may obtain more learning opportunities than employees of larger firms (Zhang et al., 2006). However, Birdthistle (2006) insists that learning opportunities in SMEs are limited, as the conservatism of their owner-managers tends to reduce learning opportunities. Most SMEs’ organisational structures are flatter than those of large firms, and a complex organisational structure has been identified as a barrier to double-loop learning (McAdam et al., 2010).

2.3.1) Summary of the Different Perspectives on SME Learning

A number of studies have been conducted on SME learning strategies in developed and developing countries. The main findings show that SME learning is important to the firms’ owners and management teams, who need to be knowledgeable about and pay attention to their changing environments. The key findings of these studies are summarized in the table below.
# Review of the Literature on SME Learning Strategies in Different Countries

<table>
<thead>
<tr>
<th>Authors</th>
<th>Countries</th>
<th>Findings of the Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jiao et al. (2010)</td>
<td>China</td>
<td>Organisational learning is closely related to dynamic capabilities and entrepreneurial orientation.</td>
</tr>
<tr>
<td>Franco and Haase (2009)</td>
<td>EU</td>
<td>Organisational learning is affected by individual, team, and organisational levels.</td>
</tr>
<tr>
<td>Wang et al. (2009)</td>
<td>China</td>
<td>Human and social capital facilitate tacit knowledge acquisition.</td>
</tr>
<tr>
<td>Guadamillas et al. (2008)</td>
<td>EU</td>
<td>Various factors affect SME learning, such as human capital, firm structure, and IT support.</td>
</tr>
<tr>
<td>Tsai (2007)</td>
<td>Taiwan</td>
<td>Different firm structures experience different forms of organisational learning.</td>
</tr>
<tr>
<td>Desouza and Awazau (2006)</td>
<td>USA</td>
<td>Large firms and SMEs have different knowledge management approaches.</td>
</tr>
<tr>
<td>Tsui-Auch (2003)</td>
<td>Singapore</td>
<td>The characteristics of family SMEs affect their learning strategies.</td>
</tr>
<tr>
<td>Kim (2002)</td>
<td>Bangladesh, India, Philippines, and Thailand</td>
<td>Knowledge management is a key tool and core task in the creation of SMEs’ competitive advantages.</td>
</tr>
<tr>
<td>Whitely (2000)</td>
<td>Hong Kong and Japan</td>
<td>Institutional SME differences between market economies lead to different innovation strategies and innovation performances.</td>
</tr>
<tr>
<td>Matlay (2000)</td>
<td>UK</td>
<td>Learning occurs in all SMEs, but few of them manage the new knowledge strategically.</td>
</tr>
<tr>
<td>Deakins and Freel (1998)</td>
<td>EU</td>
<td>The factors, entrepreneurial competences, abilities, and networking that affect entrepreneurial learning in SMEs</td>
</tr>
</tbody>
</table>
Developed and developing countries differ in their perspectives and findings on SME learning strategies, as shown by the above studies conducted in different regions over the past decade. Nevertheless, the findings contain common elements. In developed countries, firm learning is affected mainly by factors such as the level of learning, human capital, social capital, firm structure, entrepreneurial orientation, and technology development. Most of the SMEs in developed countries prefer the informal learning approach to formal training (Birdthistle, 2006a; Costello, 1996; Dalley and Hamilton, 2000; Deakins and Freel, 1998; Desouza and Awazau, 2006; Franco and Haase, 2009; Gibb, A. A., 1997; Guadamillas et al., 2008; Honig, 2001; Matlay, 2000; Minniti and Bygrave, 2001). In developing countries, the key factors influencing firm learning are human capital, social capital, the culture of trust, owners’ expectations, information technology development, the different characteristics of the SMEs (e.g. firm size and financial capability), and government policy (Jiao et al., 2010; Kim, 2002; Tsai, 2007; Tsui-Auch, 2003; Wang et al., 2009; Whitley, 2000).

2.4) SME Development in China

China’s gross domestic product (GDP) has grown at an annual average of 8% for the last 10 years, and its GDP has increased sevenfold over the last two decades (Liu, 2010). The expansion was brought about by China’s ‘open door’ policy of the early 1980s and has relied heavily on the development of the private sector. Some 2.4 million private companies were registered in 2009, of which about 95% were SMEs (Chinese Statistical Yearbook, 2010; Liu, 2010). At the macroeconomic level, this does not sufficiently explain the entrepreneurial drive behind China’s growth. Many believe that the best way to understand such an ‘economic miracle’ is to examine the learning strategies applied by entrepreneurial firms (Liu, 2010; Sun and Liu, 2009).
Since the 1980s, Chinese SMEs have grown rapidly due to economic reforms. Drawing from Liu (2010) and Chen (2006), we can identify the three development stages that Chinese SMEs have experienced:

1) 1978–1992: rapid growth due to government support;
2) 1992–2002: a rapid increase in the number of private SMEs and a drastic decrease in the number of state-owned SMEs due to government encouragement;

Chinese SMEs have been legal since the 1980s, when China started transforming into a market economy. Private SMEs are recognized as key contributors to modern Chinese economic development (Liu, 2010). In Chinese Prime Minister Zhu Rongji’s 1997 speech at the 15th Communist Party Congress, he mentioned that if China wanted to sustain its economic growth, it would have to continue reducing the number of state-owned businesses and further encourage the growth of private SMEs (Pistrui et al., 2001). In short, private SMEs will play a crucial role in China’s market economy.

The growth of SMEs has energised China’s economic development; there are 2.3 million SMEs registered with the government (Chinese Statistical Yearbook, 2010). SMEs contribute more than 60% of China’s gross national product (GNP) and employ about 80% of the country’s manpower (Chinese Statistical Yearbook, 2010; Liu, 2010).

Table 2.4.1 shows that the SMEs in China’s top five provinces account for more than 50% of the country’s total SME assets: Guangdong, 16%; Jiangsu, 11%; Zhenjiang,
10%; Shanghai, 8%; and Shandong, 6% (Chinese Statistical Yearbook, 2010; Liu, 2010).

All five provinces are located in China’s coastal area.

**Table 2.4.1: Top Five SME Provinces**

<table>
<thead>
<tr>
<th>Province</th>
<th>No. of SMEs</th>
<th>Total Assets (RMB’000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guangdong</td>
<td>230,474</td>
<td>803,158 (16%)</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>270,669</td>
<td>741,983 (11%)</td>
</tr>
<tr>
<td>Zhengjiang</td>
<td>241,220</td>
<td>712,725 (10%)</td>
</tr>
<tr>
<td>Shanghai</td>
<td>207,535</td>
<td>520,598 (8%)</td>
</tr>
<tr>
<td>Shandong</td>
<td>177,407</td>
<td>477,638 (6%)</td>
</tr>
</tbody>
</table>

*Source: Chinese Statistical Yearbook, 2010*

The 2003 SME promotion law paved the way for Chinese government support for SME development. The law provides guidelines for lawful investments of SMEs and gives the owners legal protection for their investment earnings (Pistrui et al., 2001). The law protects the rights of SMEs, including the rights to fair competition and trade (Chen, 2006). Local governments were given the right to identify potential industries or business sectors for SME development through various channels, according to the local economic situation (Kanamori et al., 2007; Li and Matlay, 2006).

The central government issued a supplementary guideline called the ‘state council on encouraging, supporting, and guiding the development of private and other non-public owned industries’, which widened the authority of local governments to promote localized SME businesses (CASME, 2009; CICASME, 2005; CICASME, 2008). In 2006, the central government proposed an SME development project that aimed to:
- Reinforce the regulatory system for SMEs,
- Develop a social service system for SMEs,
- Enhance SME reforms,
- Improve SME training,
- Strengthen the innovative capacity of SMEs, and
- Give financial support to priority industries.

(CASME, 2009; Kanamori et al., 2007)

To support SME development further, the government implemented a series of measures. First, financial resources were taken from local governments, including an SME development fund, to support high-potential industries, and tax incentives were offered to local SMEs. Second, local governments assisted the market entry of SMEs by enhancing SMEs’ working skills and providing preferential policies and regulations (Kanamori et al., 2007).

There is no commonly accepted definition of an SME for lack of conceptual clarification. For years, scholars have tried to define this complicated phenomenon (Anderson and Reeb, 2003; Birdthistle, 2008; Hall et al., 2001). According to the definition offered by European (2003), SMEs are divided into two categories: small businesses, with fewer than 50 employees and an annual sales turnover of less than €10 million (euros), and medium businesses, with fewer than 250 employees and an annual sales turnover of less than €50 million (European, 2003; European Commission, 2003). The Australian Bureau of Statistics (ABS) defines an SME this way: ‘A business is regarded as small if it is closely controlled by owners-managers who also contribute most of the operating capital and employs less than 20 people’ (ABS, 2000). In China,
the formal criterion for small and medium-sized enterprises was announced with the SME promotion law of 2003. Classification criteria and guidelines for SMEs have been clearly defined. The SME definition is based on the industry’s criteria and classified according to the number of employees and sales value. A medium-sized firm has 100 to 200 employees, while small firms have fewer than 100 (CASME, 2009). The differences between the Chinese and the European Union definitions of SMEs are summarized in Tables 2.4.2 and 2.4.3.

**Table 2.4.2: Definitions of SMEs in China**

<table>
<thead>
<tr>
<th>Category</th>
<th>Industries</th>
<th>Number of Employees</th>
<th>Sales Revenue (Renminbi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>Manufacturing</td>
<td>&lt;300</td>
<td>&lt;30M</td>
</tr>
<tr>
<td></td>
<td>Wholesale &amp; Retail</td>
<td>&lt;100</td>
<td>&lt;30M</td>
</tr>
<tr>
<td></td>
<td>Transport</td>
<td>&lt;100</td>
<td>&lt;30M</td>
</tr>
<tr>
<td>Medium</td>
<td>Manufacturing</td>
<td>300-2000</td>
<td>30M to 300M</td>
</tr>
<tr>
<td></td>
<td>Wholesale &amp; Retail</td>
<td>100-200</td>
<td>30M to 300M</td>
</tr>
<tr>
<td></td>
<td>Transport</td>
<td>100-300</td>
<td>30M to 300M</td>
</tr>
</tbody>
</table>

Source: Promotion law of China, 2003

**Table 2.4.3: Definition of SMEs in the European Union**

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Employees</th>
<th>Sales Revenue (Euro)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>&lt;50</td>
<td>&lt;10M</td>
</tr>
<tr>
<td>Medium</td>
<td>&lt;250</td>
<td>&lt;50M</td>
</tr>
</tbody>
</table>

Source: European Union, 2003
For this dissertation (and following China’s 2003 SME promotion law), a small SME is defined as a firm with fewer than 100 employees, while a medium SME is one with fewer than 200 employees.

### 2.5) Chinese SMEs’ Learning

Chinese SMEs have served as the nation’s main engine of economic development and employment growth for the past three decades; millions of people have been employed by private SMEs (Liu, 2010). The rise in SMEs’ importance to China has inspired numerous studies in recent years; topics such as the governance, structure, trust levels, and technological development of SMEs have been examined (Gao et al., 2009; Gu and Tse, 2010; Siu and Bao, 2008; Wang and Ahmed, 2003). However, little research has been done on how SMEs (especially non-manufacturing SMEs) acquire tacit knowledge; most studies have concentrated on SMEs’ technological knowledge and the innovative product learning within China’s SME manufacturing sector.

Chinese SMEs are becoming increasingly focused on developing value-added products and services to sustain strong business growth rather than keeping costs low or imitating other companies’ learning strategies (Gu and Tse, 2010; Siu et al., 2006; Xie and White, 2006). China’s huge local market has ample room for local and foreign companies to enter and expand their businesses (Liu, 2010). Due to the stiff competition from large local companies and the multinationals from developed countries, Chinese SMEs must enhance their learning capability (Gao et al., 2009). Thus, learning capability is a key focus of this study.
Chinese SMEs also encounter challenges from foreign and publicly owned companies, which invest heavily in China and create many employment opportunities (Siu and Bao, 2008). In fact, more than 70% of the Fortune 500 firms were investing or operating in China in 2009 (Chinese Statistical Yearbook, 2010; Liu, 2010). Therefore, this study must look into the knowledge acquisition of Chinese non-manufacturing SMEs.

In China, it is acknowledged that SMEs do not actively provide the training and promotion opportunities offered by large foreign companies. As a result, SME employees are inclined to quit their jobs and start their own businesses after a few years (Cao and Chen, 2010; Chiu, 2008; Li and Rowley, 2008; Tian, 2009a; Yang et al., 2008). To cope with this trend, SME owners encourage their employees to acquire firm-specific and non-transferable knowledge that the firm can control, thereby limiting the employees’ opportunities in the open labour market (Jiao et al., 2010). Work-based learning is tightly controlled by SME owners, who fear that their key staff members will be recruited by their rivals (Li et al., 2008; Matlay, 2000). Matlay (2000) and Kim (2002) support the view that firm learning is restricted in SMEs, as most of their knowledge is held by only a few individuals; thus, FL in SMEs is reactive rather than proactive.

A critical issue in Chinese SME learning is the loss of knowledge when an employee leaves (KMC, 2009; Tian, 2009a). Because of China’s hectic economic growth, the turnover rate in most Chinese SMEs has increased significantly; statistics collected by CASME in 2009 suggested that SMEs had suffered a turnover rate of about 23% in the past three years. Unsurprisingly, Chinese employees take all their tacit knowledge and personal experience with them when they leave a firm; thus, staff retention is very important, especially for SMEs (Tian, 2009a). In fact, human resources management
plays a crucial role in the FL of both SMEs and large firms (Wong and Radcliffe, 2000).

Chinese SMEs’ acquisition of tacit knowledge relies heavily on personal knowledge, working experience, and social relationships (Wang et al., 2009). Unlike in developed countries, professionalism and expertise are usually insufficient for Chinese SME entrepreneurs, as China is still transforming from a planned economy into a market economy (Xu et al., 2008). Therefore, new knowledge flows into SMEs from external sources (such as suppliers and the customers of large firms) and alliances with other SMEs (Wang and Yao, 2002). Most SMEs are on the lookout for sources of new knowledge and are eager to build close business relationships with customers and suppliers in order to acquire more tacit knowledge (Hung, 2008). Learning strategies in China follow various patterns, and entrepreneurs maintain many knowledge networks (Xing, 2010). Owing to their insufficient business experience, local Chinese SMEs rely heavily on assistance from their principal customers and suppliers (Hung, 2008). Learning happens in most SMEs through training provided by business partners (such as suppliers), not external professional consultants (Arvanitis and Zhao, 2003; Arvanitis et al., 2006). This close relationship with principal customers and suppliers is a practical strategy by which Chinese SMEs can bring solid benefits to their value chain and widen their market opportunities (Arvanitis et al., 2006).

The current training of SME managers in China focuses on basic management knowledge and best management practices. Large companies’ experiences may not be appropriate for SMEs, as SME managers’ specific entrepreneurial needs are different from those of the managers of large firms (Li and Matlay, 2006). To encourage knowledge development, the Chinese government promotes networking among SMEs.
The government also supports the establishment of industry associations, such as CASME and International Association of Chinese Small and Medium-sized Enterprises (IACSME), and invites qualified SMEs to become members in order to expand their network. This facilitates the promotion of SMEs’ production, marketing, and technology innovation, helping them face the challenges ahead (CASME, 2009). Eventually, SMEs will have more chances to develop specific markets and industries, and their choices ought to be based on their own competencies and resources in order to build up their competitive advantages (IFC, 2000).

In this study, I argue that firm learning is a process by which a firm acquires knowledge, both explicit and tacit, to be able to retain its competitive edge through human and social capital learning strategies. I further argue that the firm’s learning capability facilitates this learning process through various factors, such as IT system support, the owner’s attributes, and the firm’s financial capability. This study sheds light on the knowledge acquisition of Chinese SMEs by examining the human and social capital learning strategies and the factors that affect learning capabilities through in-depth interviews with a number of Chinese SMEs. The following section develops the research framework and research questions based on the above concept.

2.6) Research Framework (Issues and Questions)

Previous SME learning research has focused on firm learning through organisational factors, such as human and social capital (Birdthistle, 2006a; Deakins and Freel, 1998; Franco and Haase, 2009; Guadamillas et al., 2008; Holsapple and Joshi, 2000; Honig, 2001; Matlay, 2000; Paige, 2002; Penn et al., 1998; Wang et al., 2009). Holsapple and Joshi (2000) identify the major factors in learning in their Delphi study, a knowledge

While studying the learning and knowledge management of Chinese SMEs in Taiwan, Tsai (2007) identifies the three factors that need to be taken into consideration: the owner-manager, internal factors, and the external network. First, since the owner-manager has the decision-making authority, his knowledge and experience heavily influence the exploration and exploitation of an SME’s learning resources (Tsai, 2007). Second, internal factors (such as social interaction, culture, structure, and atmosphere) can shape an SME’s learning approach (Tsai, 2007). Finally, the external network is composed of outside resources that improve the organisation’s knowledge acquisition. The better the external network, the more learning opportunities there are (Tsai, 2007).

According to Guadamillas et al. (2008), IT support, the social network, and human capital management have been identified as key aspects of learning. Human capital is the identity, role, and influence of individuals in the exploration and exploitation of knowledge. A social network is the set of organisational routines that control access to the organisational knowledge available within a firm and the influence that knowledge
exerts on management decisions (Guadamillas et al., 2008).

However, few have studied the learning capacity factors (such as information technology support, financial capability, and the owner’s attributes and role), which also shape an SMEs’ learning strategies, especially in China. Chinese SMEs are not known to provide the same learning environment—financial and IT support, sufficient training, and development budgets—that their counterparts in developed countries do (Jiao et al., 2010; Li and Rowley, 2008; Tsai, 2007; Wang et al., 2009). Thus, it is essential to study Chinese SMEs’ knowledge acquisition by examining their learning strategies.

I argue that learning has always been central to SMEs’ performance improvement. The learning process is not limited to the start-up phase; rather, it is dynamic and appears to continue throughout the firm’s lifetime. Thus, I see knowledge acquisition and learning as a never-ending process aimed at the identification of business opportunities in order to improve performance. Indeed, I would define the SME as a permanent learner.

The insight I have gained from my analysis is that there is a strong interaction between knowledge acquisition and learning strategies. The major learning components to which I apply the learning theory are knowledge acquisition strategies and learning capacities. The knowledge acquisition of SMEs is greatly affected by the learning strategies, such as human and social capital strategies, and learning capacities of the firm, such as owner’s attributes and role, financial capability, etc.

A lot of papers contribute to the scientific debate about the interface between entrepreneurship and learning. Like much of recent argumentation, this shifts the focus
away from static towards dynamic approaches in entrepreneurship science (Zhang 2010; Jiao et al, 2010; Franco and Haase, 2009; Tsai, 2007). I have applied knowledge learning typology to SME learning theory, and feel that this justifies a wider definition of the learning strategies in SME knowledge acquisition. I provide a theoretical approach to knowledge acquisition strategies and suggest that its main components are strongly affected by human and social capital strategies, and learning capacities. Certainly, these are all purely qualitative assumptions. Moreover, the prescriptive value of the conceptual framework can promote knowledge acquisition among SME owners and entrepreneurship scholars.

The factors affecting the knowledge acquisition of SMEs in China can be summarised in the form of the research framework presented in Figure 2.6.1 below.

In this study, I introduce an analytical framework that highlights these issues based on a synthesis of three distinct areas of prior research: human capital learning strategies

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(Zhang, 2010), social capital and tacit knowledge acquisition (Wang et al, 2009), and the learning capacities of an SME’s knowledge acquisition, such as the owner’s role and attributes, financial capability, and IT system (Zhang et al, 2006 and Paige, 2002).

This model has been applied to frame the research study in Chinese SME knowledge learning strategies. The present research is exploratory, as it is anticipated that a more comprehensive conceptual framework will be developed from the findings of this study. The following sections further explicate this framework by defining research questions according to the literature review.

2.6.1) Research Questions

The research framework describes the interaction between the different learning strategies and factors affecting knowledge acquisition. The learning strategies are human and social capital, and the factors include IT systems for explicit knowledge acquisition, the owner’s attributes and role in the firm’s learning, and financial capability constraints. Taking into account the relationships discussed above, we analyse how these factors have been managed by SMEs and how they have influenced the learning strategies of SMEs. The following research questions are proposed in accordance with the research framework:

Q1) How do human capital learning strategies affect the knowledge acquisition of Chinese SMEs?

Q2) How do social capital learning strategies affect the knowledge acquisition of Chinese SMEs?

Q3) How do IT systems influence the knowledge acquisition of Chinese SMEs?

Q4) How do firm owners’ attributes and roles in learning affect the knowledge acquisition of Chinese SMEs?
acquisition of Chinese SMEs?

Q5) How does an SME’s financial capability impact its learning process?

It is essential for SMEs to address and consider the factors described above when formulating their learning strategies. Therefore, owners and top managers should ask themselves questions guided by these factors: how they can develop their own learning strategies and what the key factors affecting this process are; how to best use IT tools in managing knowledge; how human and social capital learning strategies influence knowledge acquisition; how the owner’s attributes and role affect firm learning; and how financial capability influences the learning process. Knowledge acquisition and an understanding of the learning strategies that improve performance will be the key factors in the survival and success of SMEs (Macpherson and Holt, 2007).

The proposed research questions will be discussed in subsequent sections.

2.7) Human Capital and SME Learning

Human capital can be defined as ability derived from education, knowledge derived from working experience, and industrial knowledge derived from on-the-job training (Madsen et al., 2003). Chinese SMEs can gain tacit knowledge through their human capital, known to be a major contributor to a firm’s operation (Zhang, 2010). In this study, human capital is defined as an individual’s capabilities, including experience, skills, and personal academic background (Zhang, 2010).
An employee’s tacit knowledge is a vital source of knowledge for a firm, since the business experience, industry-related expertise, specific skills, and know-how of each employee are the essential elements of a firm’s competitive edge when combined and applied (Grant, 1996; Liao et al., 2003). To integrate the individual knowledge bases of all members of a firm, management needs to encourage tacit knowledge exchange and peer learning (Menon and Pfeffer, 2003).

Nearly 50% of UK SME owners had no prior management experience or formal management education at the start-up stage of their businesses (Matlay, 2000). Hendry et al. (1995) found that SME owners believe management learning to be an ad hoc self-learning process. Similarly, most Chinese SME entrepreneurs lack formal education and professional training because of financial constraints and a lack of affordable programmes; it is difficult for them to obtain the necessary know-how and skills and enhance their competencies through formal learning and training (Cao and Chen, 2010; Chirico, 2008; Kanamori et al., 2007; Pittaway and Rose, 2006; Xing, 2010). According to a 2006 CASME study on Chinese SMEs, 34% of owner-managers had only a junior high-school education, while nearly 50% of the professional managers of large firms had attained college level.

Another important issue in SME learning is knowledge loss due to the resignation of key management staff (Finn and Phillips, 2002; Wickert and Herschel, 2001; Wong and Radcliffe, 2000). The staff take their personal tacit knowledge with them when they leave. Staff retention is a critical consideration in SMEs’ growth and knowledge acquisition. Darby and Zucker (2003) argue that having outstanding staff is crucial to a firm; it is very important to keep them on board because much of their knowledge is
tacit, and firm performance and growth rely heavily on their contribution.

Training is another principal consideration in enhancing employees’ human capital. Horak (2001) states that training sessions are helpful in effective learning in areas such as communication skills, peer team building, and creative thinking. Yahya and Goh (2002) suggest that training in problem solving, team building, and documentation skills is more suitable for SMEs. Paige (2002) found in her research on Australian SMEs that the most common learning methods were ‘learning as you go’ and ‘learning from peers’. She also found that SME management avoided external training, which it considered irrelevant and impractical, and that SME owners considered experience and employee attitudes the key factors in firm growth and problem solving (Paige, 2002).

Wang et al. (2009) argue that there is a relationship between human capital and business growth through knowledge acquisition, especially of tacit knowledge, in Chinese SMEs. These knowledge sources are important because business growth often hinges on SME owners’ personal experiences and relationships. Additionally, formal education and training are usually inaccessible to and unaffordable for Chinese SMEs, as the programmes are expensive and offered mainly in large cities. Therefore, Chinese SMEs tend to develop their own human capital rather than gain the necessary know-how through formal training (Wang et al., 2009; Zhang, 2010).

Chinese SMEs face rapid changes in the Chinese market and acute competition from local and foreign companies. The very competitive international market compels companies to learn quickly and apply their knowledge effectively. Self-learning ability and experience in learning will improve the comprehension of shared tacit knowledge.
It has also been found that China needs more well-educated Chinese entrepreneurs for future economic development (Zhang et al., 2009). Zhang et al. (2009) show that young Chinese entrepreneurs with higher education tend to have stronger competitive advantages than older entrepreneurs because of their superior ability to learn from and react to the constantly changing marketplace. From the above discussion, I argue that human capital strategies have a significant impact on the knowledge acquisition of Chinese SMEs. The following sections will further discuss formal and informal learning through human capital strategies.

2.7.1) Formal and Informal Learning in SMEs

There are two types of knowledge sharing in firms. The first, formalized knowledge sharing, uses knowledge as storable and retrievable information; this kind of explicit knowledge can be acquired through structured and formalized knowledge sharing practices (Alavi and Leidner, 2001). The second, informal sharing, uses tacit firm knowledge. Under this type, knowledge sharing occurs within a community of practice (COP) in order to maintain the nature of the collective tacit knowledge (Orlikowski, 2002). It requires a face-to-face and personalized informal sharing process within a peer group (Orlikowski, 2002).

For SMEs, in-house practical training programmes can be understood simply as cooperative activities in which team members freely create and share knowledge, especially tacit knowledge (Le Breton-Miller et al., 2004). In-house apprenticeship programmes can also be seen as typical informal training sessions in traditional industries that do not need to respond to a rapidly changing market environment. Outside training is necessary, though, for firms that need to react to market changes
quickly and frequently (Cabrera-Suarez et al., 2001).

Eraut (2002) argues that informal learning is responsive and does not meet the long-term needs of a company that has to acquire new skills and knowledge to face market changes. Therefore, the impact of informal learning will not be great without significant firm support. Goss and Jones (1999) stress that informal learning is a feature of SME learning. Informal learning is relatively casual, and its most common form is learning from experience and on-the-job training. Sweringa and Wierdsma (1992) refer to experiential learning in SMEs as real experiences encountered during daily operations. Brown and Keep (1999) support the view that experiential learning is part of an employee’s daily work; that is, part of dealing with the issues that arise on the job.

Goss and Jones (1999) identify two key factors that affect SME learning: senior management’s attitude to learning and training, and the culture and organisational structure. First, the attitude to learning and training is closely associated with management’s business expectations. Second, the culture of SMEs is paternalistic and relatively uncomplicated. Birdthistle (2003) says that such a culture and management structure are more suitable to informal learning strategies than to formal ones.

Chaston et al. (2000) argue that SMEs do not have a long-term learning culture that encourages learning. They further stress that a number of SMEs do not acknowledge the need for learning and development activities designed to reinforce the company’s efficiency across all functions. Chaston et al. (2000) also observe that SMEs prefer unscheduled training to scheduled training because many of them find it difficult to come up with training schedules due to their tight manpower constraints. However, EC
(2003) found that SME managers often requested training for their subordinates in order to cope with the rapid changes in the marketplace; furthermore, the less profitable firms did not provide such training nor did they really understand the cause-and-effect relationship between profits and training.

Previous research indicates that the most common SME learning methods—learning by doing and trial-and-error—are experiential (Gibb, A., 1997; Minniti and Bygrave, 2001; Politis, 2005; Ravasi and Turati, 2005; Smilor, 1997). Politis (2005) emphasizes the importance of experience in the continuous development of organisational knowledge. Ravasi and Turati (2005) declare that SME learning occurs through a self-reinforcing cycle, in which the firm continuously mixes experience with newly gained knowledge. Learning-by-doing and learning-by-coaching are SMEs’ traditional ways of creating best practices and knowledge sharing (Gu and Tse, 2010). Chen and Li (2009) find that a trusting and knowledge-friendly culture promotes knowledge sharing and creation among Chinese SMEs.

Communication flow is the SMEs’ principal informal learning tool because of their simple hierarchical management structure and casual management attitude (Birdthistle 2003). Matlay (2000) found that more than 30% of respondents picked verbal communication as the most important skill to learn; 20%, meetings; and 15%, written memos. The significance of informal learning has increased, and it has been argued that this kind of learning is most suitable for the needs of SMEs and their employees (Birdthistle, 2006a). Informal face-to-face dialogue and social networking are SMEs’ most useful tacit knowledge sharing methods, as SME knowledge is generally tacit (Egbru et al., 2005). Most SMEs rely on the specific knowledge and competencies of
their owner-managers (Desouza and Awazau, 2006). Davenport and Prusak (2000) argue that networking and informal meetings play pivotal roles in knowledge exploration and innovative thinking.

Matlay (2000) found that few SMEs relied on formal learning, most small firms preferred informal learning, and some medium-sized firms used mixed (formal and informal) forms of learning. The Matlay (2000) study also revealed that most SMEs had no history of formal training, as they valued individual experience over formal qualifications. In Matlay (2000), most of the SME learning was informal and random. Moreover, it was incidental, and only a small amount of the knowledge generated was recorded. This kind of knowledge was easily lost and replaced by new information (Matlay, 2000). On the other hand, it was also found that the majority of small firms preferred incidental learning processes, and only a few SMEs used an intentional learning process. Importantly, the knowledge generated by intentional learning was usually recorded and shared with other employees (Matlay, 2000). However, Matlay (2000) also found that only a minority of SMEs managed their learning proactively and strategically to create or maintain a competitive edge. SMEs that pursue incidental learning can achieve short-term success, as it is less time-consuming and more economical than intentional learning. However, SMEs seeking sustainable growth lean on intentional learning and are more willing to spend the time needed to achieve better medium- and long-term results (Matlay, 2000).

Tian (2009) and Chen and Li (2009) support the view that as a short-term growth strategy, incidental learning does not significantly contribute to the growth of Chinese SMEs, as it does not focus on human capital development. In contrast, intentional
learning invests highly in proactive human capital development as a long-term growth strategy. Few Chinese SMEs use intentional learning processes, as they would have to take a proactive approach in acquiring updated knowledge that could improve their competitive edge, then store and share the knowledge within the firm (Chen and Li, 2009; Tian, 2009a).

For Chinese SMEs, prior industry-specific experience is important for running a business successfully. As China is an immature market, Chinese SMEs face continuous changes in their market environment and government policies. Thus, prior business experience can help SMEs deal with particular market situations and learn the most effective ways of doing business (Zhang et al., 2009).

Business experience is a complex issue, as firm characteristics differ widely across Chinese cities and provinces. This phenomenon is caused mainly by local governments’ protection of specific businesses. It is difficult for a firm to get a complete picture of its environment through single-sided tacit knowledge (Shi, 2010; Zhang et al., 2009).

Many provincial industry associations offer specific industry-related training and conferences to Chinese SMEs to help them acquire specific tacit knowledge (Zhang et al., 2009), which the SMEs can share within the firm or the industry. As a result, the SMEs can expand their local businesses to the national arena. Conversely, it is argued that while training can help SMEs acquire essential knowledge in order to secure success, tacit industry-related knowledge is impossible to obtain through formal training programmes (Solomon et al., 2003). Ultimately, the above discussion suggests that formal and informal learning are the two major learning methods for SME human
capital strategies’ knowledge acquisition.

**Summary of Research Question 1**

Human capital is closely related to the acquisition of knowledge, as background knowledge is a key driver in the acquisition of new knowledge. Previous work and industry-related experience enhances knowledge acquisition. Thus, human capital is a key learning strategy in SMEs’ knowledge acquisition. I propose research question 1:

Q1) How do human capital learning strategies affect the knowledge acquisition of Chinese SMEs?

**2.8) Social Capital and Tacit Knowledge Acquisition**

This study defines social capital as the social connections that facilitate collective action towards knowledge exchanges. A high level of social capital and strong connections have been shown to assist firms in obtaining valuable information and knowledge (Burrows et al., 2005; Nousala, 2006).

Social capital enables a firm to access external knowledge, which includes both strong and weak network ties (Yli-Renko et al., 2001). Social capital helps knowledge transfers and learning, so that the effectiveness of an SME’s network management may be a key factor in its success (Liao et al., 2003). Strong network ties can facilitate knowledge flows, but they may also restrict the available sources of knowledge (Meeus et al., 2001). Conversely, weak network ties may create a wider range of knowledge access, inducing changes in existing routines (Minguzzi and Passaro, 2001; Yli-Renko et al., 2001). Yli-Renko et al. (2001) found a close relationship between wider network ties and knowledge acquisition. This is similar to the distinction between the ‘strong’ and ‘weak’
ties introduced by Minguzzi and Passaro (2001). The ‘strong’ tie depends on mutual trust, which needs time and resources to cultivate and retain, while the ‘weak’ tie relies on loose network relationships and is more suitable for rapidly changing market situations (Yli-Renko et al., 2001).

It is argued that an SME can speed up the development of resources and entrepreneurial skills by fostering external networks (Liao et al., 2003; Meeus et al., 2001). Yli-Renko et al. (2001) consider an SME’s social capital as the ability of its owner and management team to acquire knowledge from external relationships. They argue that an SME’s social capital enables increased access to information, an easier recognition of information that is relevant to their strategic direction, and faster knowledge transfers (Yli-Renko et al., 2001).

Previous studies have discussed learning as occurring through different social SME connections (Chaston et al., 2000; Jones and Craven, 2001; Wang et al., 2009; Zhang et al., 2009). Chaston et al. (2000) discuss the advantages of network connections. They found that the double-loop learning type of networked SMEs enjoyed more advantages in information sourcing than the single-loop type of non-networked SMEs (Chaston et al., 2000). Jones and Craven (2001) view the SMEs’ communication forum as a place of knowledge acquisition and utilization. Zhang et al. (2009) have shown that SMEs’ owner-managers are likely to source market and competitor information through their own personal connections, such as family members or friends working in non-competing firms (Zhang et al., 2009). More recently, Wang et al. (2009) argued that successful firm learning within SMEs is heavily dependent on the owner-managers’ ability to balance the knowledge acquired from external and internal sources and share
that knowledge with their employees systematically (Wang et al., 2009). Networking is the best way for SMEs to learn from both inside and outside their firms. Industry associations create knowledge and share market information with association members by enabling them to learn best practices from each other (Wang et al., 2009).

In China, trust at the firm level is low (Wang and Ahmed, 2003; Wang and Casimir, 2007; Wang and Fulop, 2007). Parties involved in the transfer process worry a lot about losing firm-specific value and their competitive edge. Thus, firms are uninterested in participating in knowledge sharing because they are afraid of leaking valuable information to competitors. It has also been argued that Chinese SMEs value personal trust over firm-level trust (Kriz and Keating, 2009). Chinese SMEs take steps to acquire tacit knowledge from outside parties if they perceive the knowledge providers as reliable (Tang et al., 2008). Yuan and Vinig (2007) found that Chinese SME owners placed more trust in their social networks than large companies did. Chinese SMEs used social networking to tap their knowledge resources. Building mutual trust within social networks facilitated the acquisition of tacit knowledge (Pearson et al., 2008).

It has been reported that Chinese SMEs place higher trust in their social networks than other kinds of private enterprises do (Kriz and Fang, 2003; Kriz and Keating, 2009). They are willing to participate in tacit knowledge sharing without fear of being deceived (Renzl, 2008). Interpersonal trust enhances new knowledge acquisition through tacit sharing. It has also been argued that one-sided trust is a high risk for SMEs, as they pay a high price for investing in social networks when they are cheated or get no return for their participation. Chinese SMEs whose attitudes are too proactive in an uncertain economic environment end up performing poorly (Tang et al., 2008).
Another social capital factor that has a great impact on firm learning is business relationships. The literature typically examines the importance of customers and suppliers (Hoffman et al., 2005; Minguzzi and Passaro, 2001; Simmie, 2002; Yli-Renko et al., 2001). It is agreed that social capital is important, but SME firms must be aware of their reliance on significant relationships with a single business partner and close ties with a business network (Yli-Renko et al., 2001).

In Chrisman and Mcmullan (2004), companies that took part in new venture programmes, were better able to capitalize on the knowledge resources of business partners. It can also be concluded that this kind of programme facilitates the exchange of business knowledge between firms, and thus makes economic sense. Similar findings have shown that this type of business knowledge transfer occurs through government initiatives (Deakins and Freel, 1998), peer networks (Floren, 2003), supportive customers (Blundel and Hingley, 2001), and cooperating constellations of professional and specialist networks (Parker et al., 2003).

On the other hand, if firms are clustered with others in the same industry, such as in a science park (like Zhongguancun in Beijing), knowledge transfers and exchanges can happen via formal and informal business contacts within the same location (Lindelof and Lofsten, 2004). In this case, social capital is available only when trust is established between co-located firms.

Hoffman et al. (2005) argue that regular interaction with key customers and suppliers helps a firm acquire new knowledge and increase competitiveness. Simmie (2002) supports the view that the more knowledgeable a firm owner is, the better the
performance of the firm. Beecham and Cordey-Hayes (1998) found that SMEs working closely with large companies along supply chains did not experience the knowledge collaboration they wanted. It was attributed not to the SMEs’ inability to absorb new knowledge, but to their failure to recognize the managerial difficulties of collaboration, which required them to alter their established operation routines and fixed patterns. Nooteboom (1999) argues that interactive relationships between large firms and SMEs support learning and innovation, since large firms are good at fundamental invention while SMEs are flexible and are able to exploit knowledge freely. Therefore, when working with large firms, SMEs freely amass the knowledge they need from the formalized platform provided by the large, well-established firms (Nooteboom, 1999).

**Summary of Research Question 2**

Social capital is also closely related to knowledge acquisition, especially of tacit knowledge, since industry-related tacit knowledge provides SMEs with a framework that helps them identify what they need to know to run their business most effectively. Wang et al. (2009) show that Chinese SMEs which are eager to acquire tacit knowledge will aggressively participate in networking with business ties. In this study, I argue that Chinese SMEs’ knowledge acquisition is also affected by social capital learning strategies, such as personal and business ties, and government networks. Thus, I propose research question 2:

Q2) How do social capital learning strategies affect the knowledge acquisition of Chinese SMEs?
2.9) Learning Capacity and SMEs’ Knowledge Acquisition

Given the SMEs’ limited internal resources, their learning capacity is likely to be as important as their ability to manipulate the specialized resources (such as IT support and financial capability) of the firm. The management of internal resources has become an important area of business strategy scholarship and is currently studied as the ‘resources-based view’, or RBV (Barney, 1991). More recently, Zhang et al. (2006) found that SME firm learning relied on the owner’s ability to balance knowledge acquisition from external sources and share the acquired knowledge with employees. From the above discussion, it can be concluded that SME learning capacity includes IT system support, the owner’s attributes and roles, and financial capability.

2.9.1) IT System Learning Support for SMEs

IT is unarguably a key enabler of firm learning. An IT system makes it possible for a firm’s members to search for and retrieve information, and facilitates communication between them. It is thus crucial to a company’s learning processes (Alavi and Leidner, 2001; Lee and Hong, 2002). However, IT is a tool, not a solution (Wong and Aspinwall, 2003), in that helps a firm gather, transfer, and apply knowledge. For instance, IT supports individual learning processes, as well as knowledge storage and transfer processes (Paige, 2002). It can aid the integration and application of knowledge by codifying and automating SMEs’ operation routines (Paige, 2002).

In this sense, an organisation’s explicit knowledge can be accessed and used by its members, as explicit knowledge is more easily transferred than tacit knowledge and can be used within a firm more easily (Argote and Ingram, 2000). Chaston et al. (2000)
agree that the absence of codification may lessen the benefits of exploiting explicit knowledge. Paige (2002) argues that it is risky for SMEs not to use codification procedures; they can lose their competitive edge to large companies, as explicit knowledge can provide training patterns and standard operating procedures which bigger firms may apply to improve their capacities through continuities and economies of scale.

The key element of organisational memory is its archive of internal and external information (Nousala, 2006). This memory is classified as semantic (Nousala et al., 2010), which refers to both general and explicit knowledge. Advanced IT systems and sophisticated computer programmes, such as ERP systems, can be effective tools in strengthening organisational memory (Nousala et al., 2010). An IT system allows organisational knowledge, mainly explicit knowledge, to be stored systematically and made accessible to firm members. The codification of knowledge into semantic memory improves not only the processes of explicit knowledge creation and storage in the firm, but also communication and understanding between individuals and groups. It has also been argued that an IT system enhances explicit knowledge development in a firm, while possibly also causing individuals to focus their efforts on internal rather than external knowledge acquisition.

An IT system can support explicit knowledge application by storing knowledge into firm routines. For instance, the procedures for every firm function can be embedded into IT systems, which then become standard operational procedures. The IT system also affects the firm’s knowledge application by facilitating the updating and accessibility of company directives. It can also improve the pace of explicit knowledge integration and
application by codifying and automating the firm’s operational routines. Workflow automation is a good example of an IT support that can eliminate the distortion in communication and use operational routines efficiently, without human error.

The challenge in a firm’s explicit knowledge management is the sharing of knowledge between individuals and groups. IT can play an essential role in this process, as it is currently used mainly in the development of firms’ explicit knowledge. The Enterprise Resource Planning (ERP) system and financial reporting system are two commonly used IT systems dealing with the collection and dissemination of explicit knowledge.

Another issue concerning IT systems’ support of firms’ knowledge creation is the need to ensure that individuals modify explicit knowledge to create new knowledge. However, do they transform their specific personal experiences into modified knowledge for other members to use, or do they reuse the currently embedded knowledge without modification?

**Summary of Research Question 3**

An IT system can support the management of a firm’s explicit knowledge in many ways. Advancements in IT can lead to various forms of knowledge management (KM) support, which can further improve the traditional storage of and access to an SME’s explicit knowledge (Paige, 2002). Thus, I believe that the role of IT support in firm learning requires scholarly attention and should be a focal point for further study. In China, IT systems are widely used by SMEs, which store of their explicit information in computer systems. This embedded system facilitates knowledge sharing and transfers within the firms. In this study, I argue that IT system support influences the knowledge acquisition
of Chinese SMEs, especially of explicit knowledge. I propose research question 3:

Q3) How do IT systems influence the knowledge acquisition of Chinese SMEs?

2.9.2) The SME Owner’s Attributes and Role in Learning

In this study, an owner’s attributes comprise his or her formal academic training and personal working experience. The owner’s attributes have a positive relationship with the learning capacities of SMEs (Jiao et al., 2010). Sirmon and Hitt (2003) argue that the SME owner is the essential agent in firm learning, as his or her attributes (such as personal skills, experience, and educational background) will affect the firm’s learning process. The owner’s business experience and educational qualifications will shape the firm’s learning strategies, focusing on either informal or formal training. Wonacott (2000) suggests that acquired knowledge may not be well applied if the owner does not have the ability to make the new knowledge intelligible. In companies that focus on learning, owner-managers are willing to invite employees to generate ideas. They request employee feedback and new ideas for problem solving. Owner-managers play a linking role in knowledge sharing; they encourage learning by soliciting potential solutions from different departments of the company. Sharing best practices across all company functions inspires employees to learn from others (Wang and Casimir, 2007). Dess et al. (2003) stress that the owner’s role and attributes have a positive influence on FL. Sher and Lee (2004) show that owners with knowledge-intensive attitudes greatly promote learning processes in SMEs. Jaio (2010) argues that innovative and proactive owners have a positive effect on SMEs’ FL.
A CASME (2006) study found that 34% of Chinese SME owners had only reached junior high school. Zhang et al. (2010) argue that young Chinese SME entrepreneurs have a stronger ability to learn from and react to the changing marketplace because of their higher educational attainment. It has also been shown that a high level of education helps SME entrepreneurs absorb new knowledge (Madsen et al., 2003). Formally educated Chinese entrepreneurs acquire tacit knowledge more easily. Formal education and industry-related training play essential roles in helping Chinese entrepreneurs accumulate the necessary know-how and skills for business operations (Wang et al., 2009). Wang et al. (2009) argue that the SME owner’s personal experience and relationships significantly enhance the firm’s business growth. A Coopers and Lybrand (1994) UK survey found that most SME owners had no industry-related experience or formal business education before starting up their businesses (Matlay, 2000). Similarly, most Chinese SME owners lack formal education, forcing them to rely on their work experience to run their businesses (Cao and Chen, 2010; Chirico, 2008; Xing, 2010). As a result, Chinese entrepreneurs have gradually come to rely on their own personal experiences when acquiring the knowledge they need (Cao and Chen, 2010).

The owner plays an essential role in SME firm learning. After finding out that most FL activities happened at the owner’s initiative, Matlay (2000) argues that the owner is the gatekeeper in the SME learning process. Furthermore, employee involvement was low in small firms but significantly higher in medium-sized firms (Matlay, 2000).

SME owners greatly influence the acquisition of new knowledge (Horak, 2001; Wang and Casimir, 2007). Owners are the role models from whom the initiative to obtain new knowledge emanates. They can openly share their own tacit knowledge and experience with all members in the organisation to encourage continuous learning and new
knowledge exploration. By doing so, owners can motivate their employees to participate in learning (Ribiere and Stitar, 2003). Firm owners must create the proper environment for effective learning. They can use a number of initiatives to influence learning strategies, including steering attitude changes, boosting employees’ morale, and encouraging knowledge sharing (Holsapple and Joshi, 2000).

Senior management support and commitment are crucial to SME learning (Davenport and Prusak, 2000; Jarrar, 2002; Sharp, 2003; Truch, 2001). Storey and Barnett (2000) add that SME owners’ support should be consistent and practical. Most SME owners prefer informal management styles and draw from their previous experiences (Matlay, 2000). Thus, the single-loop learning mode is commonly adopted by SMEs, as the owners usually want to control all aspects of the firms’ activities; this appears to be the SME norm (Matlay, 2000). Moreover, the owner’s attitudes to human and social capital will affect the learning drawn from internal and external networks (Zahra et al., 2007). Ravasi and Turati (2005) further argue that when SME knowledge is developed internally, it is better for the firm owners to stay involved in the learning process and even establish their own knowledge platforms.

Strong and stable internal ties within SMEs play an essential role in knowledge learning and creation. The closer the ties between owner and management, the more effective their use of firm knowledge will be (Darby and Zucker, 2003; Liao et al., 2003; Meeus et al., 2001). Goss and Jones (1996) argue that an SME owner’s high visibility is crucial for the success of the learning process. The owner is in the best position to inform employees of the benefits of learning and convince them to participate in learning projects. Close contact with participating employees creates a friendly atmosphere, one
where new ideas and critical suggestions can be shared (Wang and Casimir, 2007).

Zhang et al. (2006) argue that the firm owner’s role is to evaluate and exploit learning opportunities (including knowledge acquisition) that can be used to enhance strategic decisions. Indeed, learning produces multiple effects; for example, it can optimize firm performance in the short and long terms and improve personnel competence (Van Gelderen et al., 2005). Tsai (2007) shows that firm learning can lead to the discovery of opportunities. Scholars found a correlation between learning behaviour and firm performance. The owner-manager’s perception of the business environment influences the development of learning strategies, which is important for SMEs because their owner-managers are the dominant agents (Zhang et al., 2006).

**Summary of Research Question 4**

Chinese SMEs have only about two decades of history; the majority are still first-generation and under their founders’ control. Most founders used their experience from state-owned enterprises in establishing their own businesses. Meanwhile, most Chinese SME owners attained only secondary education (CASME, 2009) and thus rely on their industry-related experience and personal skills to run their businesses.

Following the above discussion, I argue that owners’ attributes and roles affect the knowledge acquisition of Chinese SMEs. I thus propose research question 4:

Q4) How do firm owners’ attributes and roles in learning affect the knowledge acquisition of Chinese SMEs?
2.9.3) Financial Capability and SME Learning

The number of available resources is important to FL, as it can affect the quality and quantity of the effort invested in obtaining knowledge, especially for SMEs. Resources are therefore a critical aspect in SME knowledge acquisition (Holsapple and Joshi, 2000; Jun and Cai, 2003; OECD, 2002). It is necessary to plan carefully when developing a Knowledge Management (KM) learning initiative, as limited resources is a major concern of SMEs. The allocation of resources is important for learning.

Previous research indicates that SMEs suffer from disadvantages in technology and management learning due to their small size and insufficient financial resources (Ghosh et al., 1993; Young et al., 1994); SMEs always underinvest in formalized management systems and therefore suffer from marketing and competitive disadvantages (Chittenden et al., 1998; Sim, 2000).

A study on knowledge management in Canada conducted in 2002 by the OECD revealed that over 50% of large firms had KM budgets, whereas less than 20% of SMEs did (OECD, 2002). Hall (2003) revealed that no formal KM process had been implemented in most Danish SMEs because of limited financial resources (Hall, 2003). Gray and Mabey (2005) showed that SMEs in European countries, especially small firms, preferred informal learning opportunities to formal training due to the shortage of financial resources. Matlay (2000) showed that there was far less training provided for employees in UK SMEs than for those in large companies. Less than 20% of Australian SMEs provide their employees with training (Paige, 2002). The key findings in Birdthistle (2006) revealed that family SMEs in Ireland did not send members of their management team to formal training; their training tended to be informal because what
training was available was not suitable, inaccessible, and too expensive; and took too long to organise (Birdthistle, 2006). In China, SMEs set aside no special budget for employee training and development (Tian, 2009a). The average spending of large companies on training is roughly between 5% and 7% of total revenue, while SMEs spend less than 0.5% (KMC, 2009).

The EC (2003) report also found that it was not affordable for traditional EU SMEs to invest in formal off-job training for their staff. Providing formal training programmes for managerial staff is not a common practice for SMEs, indicating a shortage of SME training initiatives. The findings suggest that the bigger a business gets, the more important managerial staff training becomes. However, SMEs are more likely to use informal training because it costs less and they have limited financial resources. Thus, personal coaching and mentoring are more popular among SMEs than among large firms (European Commission, 2003).

Paulsen (1994) shows that HR planning and training, particularly formal training, are weak in the SMEs of developing countries, mainly because of the cost pressures and investment return issues these firms face. Therefore, formal training occurs only occasionally in SMEs. Baskin (1998) supports the finding that SME learning needs to be more aware of and tailored to each organisation’s structure and working environment. Birdthistle’s study shows the SMEs difficulty in providing continuous learning opportunities for their staff due to tight financial resources. For this reason, nearly all of their learning opportunities are informal. However, a significant finding of the study is that SMEs do not favour team learning, while large firms are open to it (Birdthistle, 2006a).
In China, the shortage of financial resources is a key constraint for SMEs, but not for large firms (Cao and Chen, 2010). SMEs have more difficulties than large firms do in allocating financial resources to develop the special skills that are crucial for them to build their competitiveness (CICASME, 2008). CASME (2009) supports CICASME’s finding: it shows that the main reasons for avoiding formal training programmes were time constraints and inadequate financial resources. It also reports that SMEs focus on immediate and short-term business solutions, so that time-consuming training and learning activities are not a priority (Chen, 2006). Moreover, Chinese SMEs find it hard to provide training and development, market intelligence, and technology transfers because of their limited size (Liu, 2010). Jiao et al. (2010) argue that due to their tight financial capabilities, Chinese SMEs face great difficulties in running external training and find most of it unsuitable. The fact that structured formal training courses require full-time participation and the high cost of outside training consultants are other barriers to SME employee learning (Li et al., 2008).

**Summary of Research Question 5**

Chinese SMEs are private enterprises whose start-up capital comes mainly from family or the owners. Unlike the case of state-owned companies and large firms, the financial capability of SMEs is a key constraint on their development. How this factor affects the SME learning process is an important part of understanding the learning capability of Chinese SMEs. Thus, I propose research question 5:

Q5) How does an SME’s financial capability impact its learning process?
2.10) Conclusion

This section consolidates the literature review for the research framework. First, it discusses firm learning in SMEs. Second, it outlines the definition and development of SMEs in China. Third, it explains the research issues and framework. Finally, it examines the factors affecting SME learning strategies.

Chinese SMEs have been facing severe competition throughout the ongoing business revolution occasioned by the appearance of large international companies (Siu et al., 2006). Acquiring knowledge with which to transform or strengthen their operational model is the key to their survival and growth. The strategies and factors described in this study’s framework are essential for SMEs to manage in order to shape their strategies for knowledge acquisition and enhance firm performance. The strategies involve human and social capital and the factors affecting learning capacity include IT system support, firm financial capability, and the owner’s role and attributes.

Human capital refers to each employee’s business experience, industry-related expertise, and specific skills and know-how. However, the majority of SMEs prefer informal learning to formal learning. Most SMEs value individual experience over formal qualifications, and the bulk of their learning is incidental (Birdthistle, 2006; Jiao et al., 2010; Matlay, 2000).

Social capital, including strong and weak network ties, enables a firm to access external knowledge (Wang et al., 2009). Strong network ties can encourage knowledge flow while weak network ties may create a wider range of knowledge access (Minguzzi and Passaro, 2001; Yli-Renko et al., 2001). There is a close relationship between wider
network ties and learning. Strong ties depend on mutual trust, which needs time and resources to cultivate and sustain, while weak ties rely on loose network relationships and are thus more suitable for rapidly changing market situations (Hutchison and Quintas, 2008; Wang et al., 2009; Zhang et al., 2006).

Learning capacity (including IT system support, the owner’s attributes and role, and financial constraints) has a significant influence on FL. SMEs have used information technology systems widely to store explicit information, thus facilitating knowledge sharing and transfers within them. Learning processes are significantly influenced by the attributes and role of the SME owner, as SME owner-managers play a dominant role and run their businesses using personal experience (Zhang et al., 2006).

SMEs have more financial resource constraints than large companies (Holsapple and Joshi, 2000; Jun and Cai, 2003; OECD, 2002) and must therefore plan appropriately when developing a KM learning initiative.

The next chapter discusses the details of the research project and the methodology designed for this study.
Chapter 3 – Research Methodology

3.1) Introduction

The previous chapter examined the literature on SME development, SME learning strategies, and the factors affecting the development of SME learning strategies in China. The research framework and questions were also developed. This chapter outlines the methodology used for this research. Qualitative research was conducted using the assumptions of the interpretivist (constructivist) paradigm. The sampling strategy, in-depth interviews, ethical issues, and research limitations will be discussed.

The study’s cases are located in Guangdong province, the largest SME region in China. Guangdong accounts for 16% of total SME asset value (Chinese Statistical Yearbook, 2010; Liu, 2010). In this section, I focus on the research design and methodology.

3.2) Research Issues

China’s business model has experienced structural change since the economic reform of the early 1990s. A number of internationally famous consumer products have entered China, the world’s fastest growing economy (Hilgers, 2009). The traditional business model was transformed into a more dynamic system dominated by large firms.

Most SMEs were established during or after China’s late-1990s reform of state-owned businesses; therefore, the majority SME owners had been employed by state enterprises (Sun and Liu, 2009) and lacked formal business training. Given the challenges imposed by the revolution in China’s distribution system, SMEs have had to learn how to transform their operational models in order to grow and survive. For this reason, acquiring new knowledge, especially tacit knowledge, is very important to them.
The aim of this research is to explore Chinese SMEs’ knowledge acquisition strategies. I seek to investigate the human and social capital learning strategies that Chinese SMEs use in their knowledge acquisition. Additionally, I also examine IT system support, the owner’s attributes and role, and the financial capability of SMEs.

3.3) Types of Research

Exploratory research is designed to gain insight into or an understanding of a problem or situation (Perry, 1998). Its main objective is to collect the information that will help the researcher attain a comprehensive view of the issue (Yin, 2003). Exploratory research is useful for clarifying and developing concepts and providing a better grasp of a problem about which people know little. The best technique for exploratory research is the interview (Yin, 2003). Exploratory research is appropriate for the qualitative research approach. Thus, the design of this project is exploratory research, as it concerns people's social interactions and the meanings they derive from them. The sections below will introduce the study’s research methodology.

3.4) Paradigm Assumptions

Guba and Lincoln (1994) define a paradigm as a set of basic beliefs that guide action. Paradigms represent a worldview that defines the nature of the world, the individual’s place in it, and the range of possible relationships to that world and its parts.

A paradigm is the groundwork used to develop a research design. There are two paradigms: positivist and interpretivist (Creswell and Miller, 2003). Positivism is closely linked to realism, meaning that science is objective. Interpretivist is rather
holistic and subjective, based on understanding and interpretation, and uses language as a basis. Each paradigm represents a different research methodology: the qualitative method flows from interpretivist paradigm and the quantitative method, from the positivist (Creswell and Miller, 2003). The paradigm selection for this research will be discussed in the following sections.

Positivist and Interpretivist paradigms are also referred to as the ‘rational’ and ‘empirical’ paradigms. They represent competing methods (Bryman and Bell, 2007). The rational model deals with people’s in-born abilities, while the empirical model deals with the abilities obtained from experience (Patton, 2002). Positivism assumes that reality can be evaluated by measuring it through a single side mirror (Perry, 1998). This paradigm has long been widely applied in business and social science research (Guba and Lincoln, 1994). Positivism aims to generalise theoretical propositions rather than populations (Yin, 2003).

Interpretivism treats reality as perception. Interpretivist research is about individuals’ perceptions of the world, and it tries to create a world of multiple constructed realities (Baker, 2006). When applied to qualitative research, interpretivism defines knowledge as a fabricated human artefact that changes according to the situation. It seeks an in-depth understanding rather than a general idea (Johnson, 1995). This method uses triangulation through multiple data gathering methods, such as interviews, observation, and recordings, to increase its level of validity and reliability (Johnson, 1997). Triangulation has raised an important methodological issue for interpretive and qualitative approaches in its efforts to control bias and establish valid propositions because traditional scientific techniques are incompatible with its alternate
A researcher using interpretivism paradigm believes that reality does not exist but is constructed by humans in relation to each other (Crotty, 1998). Crotty (1998) also notes that interpretivism is not just about the human construction; it is the humans’ interaction with the world and how they make sense of that interaction. Therefore, interpretivist paradigm states that there could be no objectivity. Researchers and the phenomena under study are involved in changing interaction that generates the meaning of findings. Thus, knowledge is a human construction and is never value-free.

The purpose of an interpretivist research project is not to predict the world or control it as positivists and even post-positivists might desire (Crotty, 1998; Lincoln, 1990). Interpretivist identify the myriad of mental constructions of the world and try to understand them, locate some consensus among them, and reconstruct the world based on this understanding. Drawing from the inductive nature of qualitative inquiry, Interpretivists seek theories from the data and help explain the many ways that humans conceptualize the world they live in. Interpretivist research, therefore, diverges sharply from the precepts of positivism. Thus, ontological reality is socially constructed for multiple mental constructions that may conflict. Epistemologically, the inquirer and the inquired-into are interlocked in an interactive process, which results in a more personal, interactive mode of data collection. The hermeneutical and dialectical processes of data collection by interviews, observation, and document reviews are methodological approaches within Interpretivist paradigm (Guba, 1990). A summary of the paradigms is presented in Table 3.4.1.
Table 3.4.1: Summary of Paradigms

<table>
<thead>
<tr>
<th></th>
<th>Positivism</th>
<th>Interpretivism (Constructivism)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontology</strong></td>
<td>Reality is real and understandable.</td>
<td>Specific and locally constructed realities</td>
</tr>
<tr>
<td><strong>Epistemology</strong></td>
<td>Objectivist; true findings</td>
<td>Subjectivist; created findings</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>Quantitative, such as surveys</td>
<td>In-depth interviews (unstructured and semi-structured) and observation</td>
</tr>
</tbody>
</table>

Source: Denzin and Lincoln (2000)

3.4.1) **Ontology, Epistemology, and Methodology**

Paradigms can be referred to in relation to beliefs, values, and perspectives connected to a research project. Guba (1990) further said that a paradigm can be characterized as ontological, epistemological, and methodological questions. These questions are illustrated in below.

**Table 3.4.2 Ontological, Epistemological, and Methodological Questions**

<table>
<thead>
<tr>
<th></th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontology</strong></td>
<td>What is the nature of ‘Reality’?</td>
</tr>
<tr>
<td><strong>Epistemology</strong></td>
<td>What is the nature of the relationship between the researcher and phenomena under study?</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>How does the researcher to collect and analyse the data?</td>
</tr>
</tbody>
</table>
Ontology refers to the metaphysical study of the nature of being and existence (Patton, 2002). It discusses reality from an objective point of view to examine how people make judgments (Patton, 2002). The quantitative and qualitative approaches provide different answers to ontological research questions: the former sees reality as objective and the latter, as subjective (Patton, 2002).

Epistemology refers to the philosophical theory of knowledge and its validity, explanation, and causality. It concerns the connection between the researcher and the issue being studied, and seeks true knowledge (Bryman and Bell, 2007). For interpretivists, researchers need to stay in close touch with the participants, from whom they need to collect in-depth data (Creswell and Miller, 2003). Conversely, for positivists, researchers must remain independent from the issue being studied, as a higher level of independence creates a higher level of validity (Creswell and Miller, 2003).

The inductive and deductive approaches represent different methodological logics. The inductive approach starts by collecting detailed information from a small group of samples, then sums up the data by analysing the process in order to develop the main themes. Finally, the findings are used to compare current theories related to the research study (Bryman and Bell, 2007; Denzin and Lincoln, 2000). Induction is often adopted for interpretivist paradigm. In contrast, the deductive approach, which is used to test theories rather than pursue theory development, is employed by positivism. The findings of deductive research are commonly used to verify tested theories (Creswell and Miller, 2003).
3.5) Methodology

Research methodology is the plan by which research is conducted (Ponterotto, 2005). The objective of research is to develop or test a theory (Bryman and Bell, 2007). Research can be conducted using various approaches, but the essential component of all valid research is data collection (Bryman and Bell, 2007). Stake (1995) argues that research methodology selection is crucial because it affects the validity and reliability of the results. There are two main types of research methods: qualitative and quantitative (Stake, 1995).

The selection of the method depends on the defined research problem and the kind of information needed for the analysis (Bryman and Bell, 2007). There are various strategies of inquiry in the qualitative approach, including ethnographies, grounded theory, case studies, phenomenology, and narrative. The quantitative approach is divided into experiments and non-experiments. Experiments include true experiments and quasi-experiments, while non-experiments include different forms of surveys. Table 3.5.1 presents a comparison between the qualitative and quantitative approaches.
Table 3.5.1: Summary of Differences between Quantitative and Qualitative Research

<table>
<thead>
<tr>
<th>Quantitative research</th>
<th>Qualitative research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement of social life through numbers</td>
<td>Words used in presentation of analysis of society</td>
</tr>
<tr>
<td>Researcher’s perspective</td>
<td>Participants’ perspectives</td>
</tr>
<tr>
<td>Researcher is remote.</td>
<td>Researcher keeps close contact with participant.</td>
</tr>
<tr>
<td>Testing theory and concepts</td>
<td>Theory and concepts induced from data</td>
</tr>
<tr>
<td>Structured approach</td>
<td>Unstructured approach</td>
</tr>
<tr>
<td>Generalization to similar research</td>
<td>Providing insight for specific research context</td>
</tr>
<tr>
<td>Statistical data</td>
<td>People’s attitudes and perspectives</td>
</tr>
<tr>
<td>Large scale</td>
<td>Small scale</td>
</tr>
</tbody>
</table>

Source: (Bryman and Bell, 2007)

Quantitative research justifies its results through statistical analysis; it asks questions regarding ‘how many’ and ‘to what extent’. This approach relies on the researcher’s ability to use statistical tools to sum up the results and produce findings that are replicable for other populations (Bryman and Bell, 2007). It is clear, therefore, that it is the qualitative approach that best meets the needs of this study.

Qualitative research refers to any research that provides results through means other than statistical or quantifiable ones (Strauss and Corbin, 1992). This approach provides insight into a specific situation; the researcher needs to devote to the issue under study a data collection that explains the situation and the relationships between humans and things (Bryman and Bell, 2007). Qualitative research is an unstructured, exploratory method that is based on small samples and provides insights into and understanding of the research topic. Here, the qualitative method is used to look into a market context.
through in-depth research that explores the background of decision making.

Qualitative research has three features. First, as the theory is developed from research, there is an inductive relationship between theory and research. Second, as its theory of knowledge is established by studying the participants’ interpretations of the social world, qualitative research uses the interpretivist paradigm in epistemology. Third, as social phenomena and their contents are being constantly influenced by social participants, qualitative research is constructionist in its ontology (Bryman and Bell, 2007). Therefore, this study is based on constructivism, not positivism. In general, research methods in social sciences are mainly epistemological, ontological, and hypothetical-deductive. The focus is on epistemological and ontological methods, especially in qualitative research, because ‘researchers are more driven by the nature of the problem than the method’. Which methodology to choose hinges on the ontological and epistemological position of the researcher, next to the purpose of the study, the character of the problem, and the theoretical frame (as discussed above). Therefore, this study is qualitative. To summarize, this study is idealistic regarding the ontology and empirical concerning the epistemology.

3.5.1) The Choice of Qualitative Research for This Study

The learning strategies used by SMEs have been studied through both quantitative and qualitative approaches (Cao and Chen, 2010; Leung and Sun, 2008; Sharif and Huang, 2010; Thomas, 2007; Wu and Leung, 2005; Xu et al., 2008). I chose the qualitative approach for this study because I want to collect in-depth data on the SME sector. Interviews using semi-structured questionnaires will yield rich and substantial
information on SMEs’ perspectives on the process and application of their learning strategies.

I would like to explore learning strategies in the Chinese SME context by investigating both small and medium-sized firms and the insights of their owner-managers. It is more appropriate to use qualitative research to obtain these insights because in-depth perspectives and attitudes are required.

Furthermore, I selected the qualitative method because the study focuses on the owners’ and management teams’ opinions and beliefs about SME learning strategies. Key to applying the qualitative approach is obtaining in-depth answers for the questions and analysing the information provided by the interviewees. Creswell (2003) points out that ‘the flexibility and openness of qualitative research allows access to some unexpected issues and areas which might not be visible at the time of planning the research or framing the research questions’. Patton (2002) argues that qualitative research is the appropriate method to use to explain social phenomena—another reason I adopted it for my study.

The fact that the subject of the research relates to human behaviour also convinced me to select qualitative research. It is not appropriate to study human behaviour using statistical analysis; the qualitative approach, however, always asks why, how, and in what way (Denzin and Lincoln, 2000).

Bryman and Bell (2007) stress that the qualitative method gives the researcher insight into human behaviour and motivation. Creswell (2003) says the qualitative method is
interpretative and allows insight into people’s behaviour within particular contexts rather than in general situations; the flexibility of the qualitative method is suitable for this study. Patton (2002) states that in-depth interviews are flexible because no strict rules have to be followed during the interview process; thus, semi-structured interviews are appropriate for sensitive research that requires participants to describe their personal experiences.

This study explores the inductive association between theory and data. This research is designed to induce theoretical insights about learning strategies; qualitative research is the appropriate approach to understanding a phenomenon in a specific setting, such as Chinese SMEs. The foregoing discussion is summarised in Table 3.5.2.

Table 3.5.2: Qualitative Research Dissertation Content

<table>
<thead>
<tr>
<th></th>
<th>Basic criteria for qualitative research</th>
<th>Criteria for the current study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>To obtain a qualitative insight into the topic</td>
<td>To obtain a deeper insight into the learning strategies adopted by Chinese SMEs</td>
</tr>
<tr>
<td>Sample</td>
<td>Small number of sample cases</td>
<td>A study of four Chinese SMEs</td>
</tr>
<tr>
<td>Data collection</td>
<td>Data collection through qualitative method</td>
<td>In-depth interview and site visit</td>
</tr>
<tr>
<td>Data analysis</td>
<td>Non-statistical data analysis</td>
<td>Transcribed interview data by inductive data analysis</td>
</tr>
<tr>
<td>Outcome</td>
<td>Develop an insight into specific topic</td>
<td>Obtain a deeper insight into the learning strategies of Chinese SMEs</td>
</tr>
</tbody>
</table>

Sources: Denzin and Lincoln, 2000

73
Limitations of the Qualitative Approach

1) Qualitative research has its disadvantages. The word qualitative implies an emphasis on the processes and meanings that are not rigorously measured in terms of quantity. This creates problems of reliability, as it is difficult to categorize descriptions into codes and themes.

2) Malhotra, Naresh K. (2005) said, ‘The research process of an exploratory research is flexible and unstructured, and the sample size is small. The analysis of the exploratory research is qualitative and the results are tentative in nature.’ The sample size undertaken for the study did not represent the entire SME industry in China. Although care was taken in interpreting the findings, the results of the study were generalized.

3) Another possible weakness of the research method could be the problem of bias. Silverman (2001) suggested that the interview ‘is a highly subjective technique and therefore there is always the danger of bias’. Although the interviewees agreed to participate they may have chosen not to reveal all the issues related to the research questions due to feelings of embarrassment, a lack of knowledge of the topic, or confusion (Silverman, 2001).

3.5.2) Data Collection

This section discusses the data collection methods (such as focus groups, case studies, observation, and in-depth interviews) used in qualitative research and explains the method used for this study. The methods are listed in Table 3.5.3.
Table 3.5.3: Differences between Various Qualitative Methods

<table>
<thead>
<tr>
<th>Major Characteristics</th>
<th>Focus Group</th>
<th>Case Study</th>
<th>In-depth Interview</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aim</td>
<td>General insight</td>
<td>Theory development</td>
<td>Detailed data collection</td>
<td>Formulating research purpose</td>
</tr>
<tr>
<td>Procedures</td>
<td>Structured/unstructured</td>
<td>Structured</td>
<td>Structured/semi-structured/unstructured</td>
<td>Systematically planned</td>
</tr>
<tr>
<td>Context</td>
<td>Unstructured</td>
<td>Structured</td>
<td>Structured/semi-structured/unstructured</td>
<td>Recorded systematically and more general propositions</td>
</tr>
<tr>
<td>Strengths</td>
<td>Group interactive effect</td>
<td>Replication</td>
<td>Replication</td>
<td>Seeking how people actually behave</td>
</tr>
</tbody>
</table>

Source: Bryman and Bell, 2007

A focus group refers to participants who are interviewed on a specific topic as an interactive group. This method was not selected for this research because peer influence is a key concern, despite the fact that a focus group could have provided the researcher an opportunity to listen to many different participants at the same time (Churchill, 1995).
The case study approach was not used for this research either. A case study requires the researcher to develop a specific target (the case) and gather detailed data on it in order to discuss it (Yin, 2003). Perry (1998) states that grounded theory support is needed prior to conducting a case study, whereas this research aims at gaining insight into how Chinese SMEs adopt their learning strategies, rather than testing a theory.

Observation is used as a primary method of formulating research hypotheses, sometimes combined with other research methods, such as interviews and questionnaire surveys (Bryman and Bell, 2007). Unstructured observation occurs when the researcher has no preset opinions about the research topic. Structured observation occurs when the researcher examines an issue in order to explore the possible relationships within it. Participant observation occurs when the observer is closely involved in what is being studied for data collection (Baker, 2006). Observation is used as an additional support for data collection in this research, as company visits were granted by the participants.

The in-depth interview was selected as the main data collection method for this study because a deep understanding of the phenomenon is necessary. An in-depth interview is a comparatively organised way to gather and analyse qualitative data on personal attitudes, opinions, knowledge, and experience, whereas focus groups merely invite participants to discuss a topic (Dick, 1990; Rao and Perry, 2003); it is able to obtain detailed personal experiences (Patton, 2002).

There are various interview formats. An open-ended interview allows the researcher to ask participants’ opinions in a flexible way. A focused interview is used to confirm facts that the research believes to have been established. A structured interview gives
participants structured questions to answer and follows the procedures of a formal survey. There are two types of interview techniques in the qualitative approach: unstructured and semi-structured. The unstructured interview is informal and merely keeps the interview questionnaire vaguely in mind. The semi-structured interview requires a series of questions; follow up-questions are also allowed (Bryman and Bell, 2007). I opted for the semi-structured approach for two reasons. First, it permits the researcher to modify and rectify the questions at any time during the interview in order to gather more reliable data. Second, open-ended questions give the participants a free and comfortable atmosphere in which to express their opinions and feelings.

This research uses mainly an in-depth interview. In qualitative research, the textual analysis is concerned with understanding participants’ categories. The in-depth interview in this study—mostly semi-structured questions—is conducted on small samples. The advantage of the qualitative approach in this study is that by coming in close proximity to the SMEs, one is able to best explain and describe the learning strategies in the non-manufacturing sectors. The best approach to this research would be to obtain rich, in-depth information (primary data) by interviewing owners and managers of local SMEs about how they respond to the challenges they face.

The interview is probably the most extensively employed method in qualitative research; its flexibility is what makes it so attractive. Qualitative interviewing differs substantially from interviewing in quantitative research in several ways. In qualitative interviewing, there is generally greater interest in the interviewee’s point of view, while in quantitative research, the interview reflects the researcher’s concerns. In a qualitative interview, interviewers can easily veer away from any schedule or guide that is being used. In conclusion, qualitative interviewing tends to be flexible, adapting to the direction to
interviewees take the interview, and perhaps adjusting the emphases in the research due to significant issues that emerge in the course of interviews.

The in-depth interview was the primary tool for data collection in this research because it has been widely used as a cost-effective way of studying knowledge acquisition strategies. Besides the interviews, I also collected some financial data provided by the firm owners.

A semi-structured questionnaire was employed. A list of interview questions was developed as part of the cast study protocol (Yin, 2003) before the interviews. The questions were developed from the research objectives and literature review, particularly the framework provided in chapter 2. In the interview, I first asked the SME owners or managers to briefly describe their firm’s background and operation, after which I asked them if they had implemented any important learning strategies over the past years. Next, I explored key factors, such as human and social capital strategies.

3.5.3) Qualitative Interviewing Process

A questionnaire with in-depth interviews generated the information for this study. I developed a semi-structured questionnaire with seven parts of questions to encourage comprehensive responses. All respondents were asked the same questions, which served as a framework for the initial discussion with participants. These questions were accompanied by many other clarifying questions in response to the participants’ answers during the interview.
To obtain the participants’ real perspectives, the interviewer should conduct the interview flexibly, adapting to the participants’ answers and feedback. For instance, the interviewer could ask new questions or rearrange the order of the existing set according to the participants’ answers (Yin, 2003). Thus, it is appropriate to adopt semi-structured interviews for this study as the primary data collection technique. I used open-ended questions to enable the participants to freely describe the learning processes of their firms. The advantage of this approach is that it collected solid, in-depth primary data on the learning strategies they were using in their firm environments.

The semi-structured questionnaire uses indicative questions about what the researcher wants to discuss (Yin, 2003). The researcher need not stick to a particular order of questions, and can pose any follow-up or additional questions to elicit further elaboration from the interviewee (Yin, 2003).

To minimize the possibility of disturbance, each interview was conducted in an office of the participant’s firm. With the prior permission of each participant, all interviews were audio taped, with only minimal field notes taken; this allowed the researcher to focus on the conversation without the distraction of note taking.

Company visits were allowed by the four SMEs, adding value to the research and a better reference for analysis. The information from those visits is an additional source for further reference, strengthening the reliability of the research.
The taped interviews were saved in computer files. All interviews were transcribed and sent to the participants for verification before the analysis was performed. This is an important step, as errors in transcription can be minimized through participant verification.

3.5.4) Data Analysis

The appropriate method for analysing qualitative data is inductive analysis. This was used to interpret the transcribed interview data and observational notes by reading through and organising the pages of transcribed interview data, a method commonly used by researchers pursuing qualitative studies. The data set comprised only 16 interviews—a manageable scale of qualitative research—and thus did not need the application of a computer data analysis program. Word and Excel were used for data storage and manipulation.

The next step after the collection of data is the interpretation of the findings, taking into consideration the stated research problem (Yin, 2004). Data in its raw form cannot speak for itself; the messages stay hidden and need to be picked out by analysis (Yin, 2004). Because qualitative research is subjective, data analyses are crucial in achieving good research results. Kvale (1996) suggests some methods for the analysis of meaning: condensation, which summarizes the meaning of what the interviewees expressed; and categorization, which reduces and organises large text into a few tables and figures. All interviews were digitally recorded and later transcribed into text, which served as the primary information for the actual analysis. This allowed the removal of any recall bias. The interpretations of the interviews were sent to the interviewees for self-correction, which further helped in removing bias. The interview data were condensed and categorized, the matter was structured, and the findings were presented in writing.
The analysis included several steps. First, I organised the data. All of the interview tapes were transcribed. I translated the quotations in Chinese into English, taking care to ensure accuracy and to maintain the richness of the Chinese expression, as suggested by Tsang (2001). To support the taped interviews, I completed the field notes reports on the same day. Second, I coded the interview transcripts and field notes to conceptualize the data. The interpretation of the coded data of each case was recorded in a memo. According to Strauss and Corbin (1990), a memo is a written record of analysis to aid the development of explanation and the formulation of theory. I regard it also as a tool to aid within-case and cross-case analysis (as recommended by Eisenhardt, 1989; Yin 2004). Third, I conducted within-case analysis, through which I familiarized myself with each case as a stand-alone entity. Finally, I performed cross-case analysis, through which similarities and difference were identified.

3.6) Case Selection

An exploratory study seeks to understand a contemporary phenomenon by focusing on a limited number of circumstances. In this study, the major source of data was the set of interviews conducted with the four selected Chinese SMEs from the non-manufacturing sector.
Table 3.6.1: Ranking by SME Sector

<table>
<thead>
<tr>
<th>Number of SMEs</th>
<th>Number of employees</th>
<th>Yearly business revenues (Rmb M)</th>
<th>Total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>1,228,354</td>
<td>38,325,314</td>
<td>3,612,196</td>
</tr>
<tr>
<td>Wholesale and Trading</td>
<td>819,054</td>
<td>7,625,545</td>
<td>2,056,859</td>
</tr>
<tr>
<td>Construction</td>
<td>107,186</td>
<td>7,157,427</td>
<td>436,184</td>
</tr>
<tr>
<td>Transport</td>
<td>59,702</td>
<td>2,089,113</td>
<td>160,921</td>
</tr>
<tr>
<td>Others</td>
<td>280,561</td>
<td>6,554,919</td>
<td>866,370</td>
</tr>
<tr>
<td>Total</td>
<td>2,327,969</td>
<td>58,947,778</td>
<td>6,535,425</td>
</tr>
</tbody>
</table>

Source: Chinese Statistics Yearbook, 2010

Manufacturing and wholesaling are the two major industries in China’s SME sector (McAdam et al., 2010). Since this study investigates the learning strategies of non-manufacturing SMEs, it is reasonable to take wholesaling, the second biggest SME sector (see Table 3.6.1), as the study sample; wholesaling accounts for 35% of the total SME output. Over the past decade, wholesaling SMEs have grown at an average of 20% yearly, and their employees now account for 30% of the total SME workforce (Chinese Statistical Yearbook, 2010; Liu, 2010).

The next question is whether the number of cases selected is adequate for the research. To build significance, a minimum of two direct replications is necessary. However, for the number of theoretical replications, external validity is the major concern (Yin, 1994). Eisenhardt (1989) states that a study of four to 10 cases is most appropriate for the multiple-case approach, although there is no perfect guideline for the number of cases.
needed. It is hard to develop a theory if fewer than four cases are studied, but it is also hard to handle the great amount of data generated if more than 10 cases are studied (Eisenhardt, 1989).

This study of four cases uses the in-depth interview approach, by which participants can be asked specific personal questions; the multi-case study approach enables researchers to obtain more extensive data from the participants, thus enriching the analysis. Descriptions of the four firms are summarised in Table 3.6.2.

Table 3.6.2: Key Information on Sample Firms

<table>
<thead>
<tr>
<th>Company</th>
<th>Date of Establishment</th>
<th>Nature of Business</th>
<th>Number of Employees</th>
<th>Management Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm C</td>
<td>1994</td>
<td>Consumer goods wholesaler</td>
<td>150</td>
<td>Owner-managed and outside managers</td>
</tr>
<tr>
<td>(medium-sized)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm D</td>
<td>1997</td>
<td>Consumer goods wholesaler</td>
<td>120</td>
<td>Owner-managed and outside managers</td>
</tr>
<tr>
<td>(medium-sized)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm A</td>
<td>1996</td>
<td>Consumer goods wholesaler</td>
<td>60</td>
<td>Owner-managed and family members</td>
</tr>
<tr>
<td>(small-sized)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm B</td>
<td>2005</td>
<td>Consumer goods wholesaler</td>
<td>12</td>
<td>Owner-managed and family members</td>
</tr>
<tr>
<td>(small-sized)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.6.1) Sampling Strategy

There are two sampling methods in the field of research: probability and non-probability. (Bryman and Bell, 2007). Probability sampling selects samples from
the population randomly, allowing all samples to be picked on an equal basis and eliminating sampling errors resulting from personal bias (Bryman and Bell, 2007; Creswell and Miller, 2003). Probability sampling is commonly used for quantitative research even though it may be time-consuming and relatively expensive.

Non-probability sampling commonly refers to purposive, convenience, or quota sampling (Bryman and Bell, 2007). It is suitable for small sample sizes and cases in which respondents are difficult to access; thus, it is used for qualitative rather than quantitative research (Creswell and Miller, 2003). The non-probability sampling method was adopted as the qualitative research approach for this study.

3.6.2) Research Sample Definition

We selected two small firms and two medium-sized firms. Sixteen interviewees, split equally between the two selected groups of firms, agreed to participate (see Table 3.6.3).

**Table 3.6.3: Number of Interview Participants**

<table>
<thead>
<tr>
<th></th>
<th>Small firms</th>
<th>Medium-sized firms</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner Manager</td>
<td>2</td>
<td>2</td>
<td>50% : 50%</td>
</tr>
<tr>
<td>Senior Manager</td>
<td>6</td>
<td>6</td>
<td>50% : 50%</td>
</tr>
</tbody>
</table>

An updated membership list of Guangdong province was sourced from CASME, consisting of all the categories of the SME sector. Ten wholesaling SMEs were randomly selected for initial contact. The criteria for their selection was their location (Guangdong) and firm size. Since being an SME was the key requirement for the sample, it was necessary to first confirm that the chosen SMEs met that requirement. Initial telephone contact with the 10 firms was made to obtain their preliminary consent and check their firm background and
size. Ultimately, two small and two medium-sized firms agreed to participate in this research.

The final four wholesale SMEs located in Guangdong affirmed their participation in the research. Four participants from each firm were interviewed, for a total of 16 interviews. Being owners, owner-managers, or senior managers, the participants were decision makers in their firms, with a full grasp of operations. They were all mature adults and signified their willingness to participate by signing a letter of consent before the interview.

3.7) The Interview Process

Sixteen semi-structured in-depth interviews were held with the owners and senior managerial staff of the four sample SMEs. The interviews investigated the SMEs’ learning strategies from the management perspective. All interviews were scheduled after obtaining the approval of the university's Ethics Committee. One hour was devoted to each interview, and a Dictaphone was used for on-site recording; minimal field notes taken on the spot. Since we did not want to distract the interviewees and wished to increase the reliability of data collection, approval for the audio-taping was obtained beforehand. We also visited the four companies in order to strengthen the reliability of the research. The details of the interview questions and contents were fully communicated to the interviewees beforehand to build mutual understanding and trust.

3.7.1) In-depth Interviewing Technique

This section discusses the major steps in applying the in-depth interview approach in this research. The steps concerned the information requested, the number of interviews,
An interview questionnaire (see Appendix III) is needed before conducting any interview. Although there is normally no fixed question format or question order for the questionnaire, it should focus on issues closely related to the research problems and questions (Minichiello et al., 1992). The interview questionnaire serves as a checklist to ensure that all issues are discussed. It also provides a guideline by which the interviewer can control the discussion, make the most of the limited time, and arrange the various interviews systematically (Patton, 2002).

Open-ended questions were used for this research to allow participants to voice their views freely. The advantage of a semi-structured questionnaire is that it allows the interviewer to create an interactive and harmonious atmosphere while discussing the preset topics (Patton, 2002). A copy of the semi-structured questionnaire is attached in the Appendix. Four sets of questions are listed. The first set collects participants’ demographic data. The second covers the learning strategies adopted by the firms. The third focuses on the owner’s role in and attitude to firm learning. The last centres on the influence of financial capability on firm learning. The general idea of the questions is communicated to the participants before each set of sub-questions begins.

The next step is to determine the interviewees for the research. In in-depth interviewing, the selection should be based on two criteria: the heterogeneity of each interviewee and the relevance to the topic under investigation (Dick, 1990). This research project had two types of interviewees: owner-managers and employed managers. To access multiple information sources and obtain in-depth insight into the research questions, the
purposive sampling method was used. Two small firms and two medium-sized firms were selected. This is an effective way of locating information-rich data providers (Patton, 2002).

3.7.2) Demographic Data of the Interviews

The key findings and issues covered in all the interviews are summarized to give a concise picture of the interview, including profiles of the interviewees and the issues discussed.

The four sample firms were selected from the CASME membership list. Sixteen management staff—eight from each group of firms—were selected for the interview. The total time for each interview was about one hour; the interviews with the owner-managers were the longest because more questions and data were needed. The details of the interviewees are listed in Table 3.7.1.
### Table 3.7.1: Profiles of the Participants

<table>
<thead>
<tr>
<th>Company</th>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Education</th>
<th>Years in Firm</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm C (medium-sized)</td>
<td>1</td>
<td>M</td>
<td>45</td>
<td>Secondary</td>
<td>13</td>
<td>Owner-Manager</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>M</td>
<td>40</td>
<td>College</td>
<td>3</td>
<td>Logistics Manager</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>F</td>
<td>29</td>
<td>Secondary</td>
<td>4</td>
<td>Marketing Manager</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>M</td>
<td>35</td>
<td>College</td>
<td>4</td>
<td>Finance Manager</td>
</tr>
<tr>
<td>Firm D (medium sized)</td>
<td>5</td>
<td>M</td>
<td>45</td>
<td>Secondary</td>
<td>10</td>
<td>Owner manager</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>M</td>
<td>40</td>
<td>College</td>
<td>10</td>
<td>Sales Manager</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>M</td>
<td>30</td>
<td>College</td>
<td>6</td>
<td>Deputy General Manager</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>M</td>
<td>35</td>
<td>College</td>
<td>4</td>
<td>Finance Manager</td>
</tr>
<tr>
<td>Firm A (small-sized)</td>
<td>9</td>
<td>F</td>
<td>34</td>
<td>Primary</td>
<td>14</td>
<td>Owner-Manager</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>M</td>
<td>41</td>
<td>Secondary</td>
<td>2</td>
<td>Sales Manager</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>F</td>
<td>35</td>
<td>College</td>
<td>4</td>
<td>Finance Manager (family member)</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>F</td>
<td>29</td>
<td>Secondary</td>
<td>3</td>
<td>Logistics Manager (family member)</td>
</tr>
<tr>
<td>Firm B (small sized)</td>
<td>13</td>
<td>M</td>
<td>40</td>
<td>Secondary</td>
<td>6</td>
<td>Owner-Manager</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>M</td>
<td>60</td>
<td>Secondary</td>
<td>6</td>
<td>Sales Manager (family member)</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>F</td>
<td>45</td>
<td>Primary</td>
<td>4</td>
<td>Administrative Manager (family member)</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>M</td>
<td>32</td>
<td>Secondary</td>
<td>4</td>
<td>Warehouse Manager (family member)</td>
</tr>
</tbody>
</table>
Sixteen participants were interviewed from the four sampled SMEs. Their ages ranged from 30 to 60 years; the four owner-managers were in their early 40s. The rest were department managers from sales, marketing, finance, administration, and logistics. About 37% had post-secondary education, 50% graduated from secondary school, and 13% only had primary education. There were five women (31%) and 11 men (69%) in the sample.

### 3.8) Pilot Test

A pilot test was run to fine-tune the semi-structured interview questionnaires. Two owner-managers and two senior managers from two SME firms were invited to participate. The pilot test was necessary in order to verify the reliability, validity, and accuracy of the questionnaire’s language. Such a test is essential for increasing reliability; it also makes the questions easier for the interviewee to understand and answer. Theoretically, reliability should be based on an objective measurement. However, many constructs in the in-depth interviews were implicit, perceptual, and involved personal impressions.

### 3.9) Reliability

According to Joppe (2000), ‘the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability, and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable’.

Reliability is the extent to which a measurement yields the same result each time it is
repeated (Bryman and Bell, 2003); it is associated with random measurement errors, which are supposed to cancel each other out in repeated measurements. Reliability has been defined as the proportion between non-random and observed variance (Bohrnstedt, 1983).

Good qualitative research can help clarify an ambiguous situation; this is an index of reliability (Eisner, 1991). The concept of quality in qualitative research relates to seeking understanding (Stenbacka, 2001).

Churchill (1995) stresses that the examination of the trustworthiness of a qualitative study is essential in achieving reliability. Seale (1999) states that the trustworthiness of a qualitative study depends on whether the discussion of the key issues is based on valid and reliable data and analysis. Conversely, Stenbacka (2001) disputes the view that reliability is about measurements and argues that they are not relevant to qualitative study. Patton (2001) argues that reliability is a product of validity in a qualitative study.

The reliability of collected data is best maintained by taking multiple items and measuring a concept in an individual test (Dooley, 1995). Data triangulation using different sources from the same company should improve the accuracy and reliability of the data; therefore, multiple interviews with many employees other than the owner should improve reliability. In this study, aside from the four owner-managers, we also interviewed 12 department heads and senior executives—members of the firms’ top management level.
According to Bryman and Bell (2007), to achieve reliability, ‘it is important that each respondent understands the questions in the same way and that answers could be coded without the possibility of uncertainty’. Originality is another important factor in achieving reliability; thus, tape-recorded interviews and transcription were preferred over field notes, which may be affected by environment, personal bias, or communication distortion.

### 3.10 Validity

Validity refers to the extent to which a measurement really predicts the phenomenon under investigation (Pope and Mays, 1995). Joppe (2000) provides the following explanation of validity in research: ‘validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. In other words, does the research instrument allow you to hit “the bull’s eye” of your research object? Researchers generally determine validity by asking a series of questions, and will often look for the answers in the research of others’ (Joppe, 2000).

Validity has been defined by a range of terms in qualitative research. Some qualitative researchers have said that validity is not suitable for qualitative studies, but they have also recognized the need to apply the qualitative method as a qualifying check on their research (Winter, 2000). For instance, Creswell and Miller (2003) argue that researchers’ perceptions and paradigm assumptions have a strong influence on the validity of their research. As a result, many researchers have tried to develop their own concept of validity and have adopted what they think are appropriate terms, such as ‘quality’ and ‘trustworthiness’ (Davies and Dodd, 2002; Stenbacka, 2001).
The definition of the concept of validity for qualitative research is under debate. Stenbacka (2001) states that the idea of reliability in qualitative studies is that which needs ‘to be solved in order to claim a study as part of appropriate research’. Thus, the quality of a study depends on the generalizability of its findings, which confirms its validity. Patton (2002), however, stresses that generalizability, as a requirement of a quality study, is closely related to the case being selected and studied.

To maintain the validity of the data, two procedures had to be undertaken in this research. First, internal inconsistencies in the interviews had to be minimized and second, multiple questions on the same issues had to be given to interviewees to further clarify or elaborate their answers.

This research used a sampling firm for the collection of the self-provided data because the interviewees had to have a thorough comprehension of business-related situations. Few employees have a deep and total understanding of their firm’s operations. The most appropriate kinds of interviewees are the department heads and senior executives who serve as members of the top management teams. However, since most SMEs cannot provide objective data sources, self-provided data was a crucial resource. Therefore, we focused on owner-managers and key senior department heads in order to secure the most reliable data sources.

Davies and Dodd (2002) state that achieving validity requires ‘comparing different kinds of data (primary and secondary) and different methods (observation and interviews) to see whether they corroborate one another’ (Davies and Dodd, 2002).
3.11) The Quality of the Research

A number of scholars have argued that reliability and validity are relevant to quantitative research, but are not appropriate for qualitative research. They propose two key criteria, trustworthiness and authenticity, for the evaluation of qualitative research (Bryman and Bell, 2007; Davies and Dodd, 2002; Guba and Lincoln, 1994; Lincoln and Guba, 2000; Stenbacka, 2001). To maintain the quality of this study, the author uses the two criteria to validate the research.

Trustworthiness comprises four criteria by which assessments of qualitative research can be made. First, credibility (internal validity) evaluates whether the research was conducted in a professional way, with the findings verified by the participants. Second, transferability (external validity) evaluates whether the findings can be applied in other contexts. Third, dependability (reliability) evaluates whether the process and research results can be accessed in the future. Finally, conformability (objectivity) evaluates whether the research was conducted in good faith, without the influence of personal bias (Bryman and Bell, 2007).

Authenticity determines if there was a fair chance of accepting different opinions from members of the social setting and whether they had enough of a chance to take the necessary measures to prepare for their participation in the study (Bryman and Bell, 2007). Bryman and Bell (2007) stress that authenticity is more crucial than reliability in the qualitative approach. In-depth interviews with open-ended questions are the best way to collect rich and concrete data and gain an authentic understanding of the human experience. The ability to gain a deeper and clearer picture of a specific issue is an advantage qualitative research has over quantitative research.
As regards trustworthiness, this research was conducted professionally and ethically; the Ethics Committee of Newcastle University approved it and all participants were well informed of its objective and details. Research information sheets and questionnaires were sent to the participants for perusal before the interviews were arranged and, more importantly, they were all asked to sign consent letters prior to the start of the interview process. The research was carried out in good faith because the participants were not forced to answer questions they did not like and they were free to express their opinions and feelings. The transcribed interview data were sent to the participants for further verification before the analysis was run. A complaint channel staffed by a research supervisor and a university committee will investigate complaints from participants about the research. The research findings are available to all participants upon request. To control the trustworthiness of the research results, the audiotaped data and transcriptions were securely stored and are available for examination. The in-depth findings that shaped the study’s insight into SME learning strategies provide a reference which SMEs can use in planning and developing their learning strategies, and a resource for researchers pursuing related studies.

As regards authenticity, the sample selection of this study was a fair representation of the social setting; four SMEs and 16 interviews were considered fair and reasonably representative samples. The findings and analysis provide a good reference for decision making concerning SME learning strategies, as the research results reflect the attitudes and opinions expressed by the interviewees. The site visits allowed by four of the SMEs supplied additional valuable information, validating the accuracy of the interview data.
Qualitative researchers argue that the concepts of reliability and validity used in quantitative research differ when viewed from a qualitative research perspective. Quantitative research is concerned with the replicability of the result (Winter, 2000), while precision, credibility, and transferability are the main elements of qualitative research findings (Winter, 2000). The quantitative and qualitative approaches represent two different paradigms (Winter, 2000).

The qualitative approach is a realistic method that tries to understand a situation in a specific context that has not been controlled by the researcher (Patton, 2002). Broadly, qualitative research refers to ‘any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification’ (Strauss and Corbin, 1992). Hoepfl (1997) further explains that the quantitative approach focuses on causal relationships, replication, and the generalization of the results, while the qualitative approach aims at understanding and drawing inferences from known facts.

The findings of qualitative research constitute a different kind of knowledge than those of quantitative research. The former proceeds from the philosophical nature of each paradigm, mainly through interviews, while the latter concentrates on plain methods, mainly by applying numerical descriptions (Strauss and Corbin, 1992). Thus, interviews and observation are the major methods of interpretive research, while the survey is the chief method of positivist research. In quantitative research, credibility rests solely on the instrumental construction; in qualitative research, the researcher is the instrument, credibility resides in the researcher’s capability and effort (Patton, 2002).
3.12) Ethical Issues

Ethics is a key issue and compulsory requirement for all research. To ensure privacy and confidentiality, the names and identities of the study’s participants were not disclosed. The four SMEs are referred to as firms A, B, C, and D, also to maintain confidentiality. The information sheet was discussed with all participants, who signed consent forms before the interview was conducted. This research met the ethical requirements of the University of Newcastle and was approved by its Ethics Committee before the interviews began. All research data is kept by the research supervisor in a secure location. The final report will be given to any participant upon request.

3.13) Limitation of Data Collection

Data collection for 16 personal in-depth interviews is time-consuming, and some SME firms are reluctant to share their business strategies and operational information with outsiders. Kriz et al. (2002) found that many Chinese SMEs were unwilling to disclose their business information publicly. Thus, interviews with owner-managers and senior department heads are important ways of obtaining valuable information.

As data collected from a single source might be biased, it is better to gather data from many members of a management team rather than from just the owner. The data from different sample firms can often be uneven; for example, Firm A is willing to provide archival documents for reference, but refuses to share personal opinions during the interview. Firm B is reluctant to provide secondary data for further analysis but freely expresses opinions during the interview. Relevant data have to be gathered from multiple interviews; triangulation is another crucial means of obtaining substantial data.
Many Chinese SMEs are not familiar with academic research and are unwilling to be interviewed. Accessing the right research participants is vital to the project. Guanxi (relationship) and xinren (trust) are the key success factors in targeting research participants and collecting credible, reliable data from China’s market (Kriz et al., 2002). As Kriz and Fang (2003) state, ‘Qualitative research often requires one to “get in” so guanxi is not an exception in terms of gathering “rich” qualitative data.’ Therefore, establishing trust with the interviewed SMEs will help the data collection process tremendously.

**3.14) Conclusion**

In this chapter, I have given detailed information regarding the research methodology adopted, and explained the reason for choosing qualitative research techniques. The qualitative research method was applied due to the nature of the study. The qualitative research process and the various data collection methods available were explained. Also, the techniques applied in this research were discussed, along with the reason for using them. The data was gathered from in-depth interviews and other secondary sources. The various shortcomings of a qualitative study and the different techniques used for this study were also explained. In sum, this chapter gives an overview of the research methodology adopted.

The next chapter presents the findings of the research and explains the insights obtained from the analysis.
Chapter 4 – Findings and Analysis

4.1) Introduction

This study draws from 16 in-depth interviews across four SMEs. The most important interviews were conducted with the firm owners, who were given ample time to express their views on their firms’ learning and development strategies. Having obtained in-depth data from the firm owners, I then interviewed the senior managers of all firms to obtain more details. In addition, observations were made and informal dialogues were conducted during the visits.

This chapter covers six sections: a case introduction and analysis of the sample firm profiles (sections one and two); the main findings and a summary of the results (sections three, four and five); and the proposed new conceptual framework (section six). The conclusion follows.

4.2) Case Introduction

All the owners are also founders, and the founder-owners totally control their firms’ operation. Dongguan Wei Sheng Drink Co., Ltd. (Firm C) and Shenzhen Yong Zhi Cheng Trading Co., Ltd (Firm D) are controlled and managed by the owners, who are assisted by a professional management team (externally recruited managers). Shenzhen Fu Hong Yi Co., Ltd. (Firm A) and Shun Loong Emporium Ltd. (Firm B) are controlled and managed by the owners and supported by family members. Firms A and B are small companies, while firms C and D are medium-sized, following the definition that the study outlined in previous chapters. A summarized demographic description of these two groups of firms is presented in Table 4.2.1.
### Table 4.2.1: Demographic Description of Interviewed Firms

#### Small family firms

<table>
<thead>
<tr>
<th>Company</th>
<th>Shenzhen Fu Hong Yi Co. Ltd.</th>
<th>Shun Loong Emporium Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date of Establishment</strong></td>
<td>1996</td>
<td>2005</td>
</tr>
<tr>
<td><strong>Business Nature</strong></td>
<td>Trading</td>
<td>Wholesaling</td>
</tr>
<tr>
<td><strong>Number of Employees</strong></td>
<td>60</td>
<td>12</td>
</tr>
<tr>
<td><strong>Family Members Recruited</strong></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Generation</strong></td>
<td>Founder</td>
<td>Founder</td>
</tr>
<tr>
<td><strong>Management Involvement</strong></td>
<td>Owner-managed</td>
<td>Owner-managed</td>
</tr>
<tr>
<td><strong>Organisation Structure</strong></td>
<td>3 departments</td>
<td>2 departments</td>
</tr>
</tbody>
</table>

#### Medium-sized family firms

<table>
<thead>
<tr>
<th>Name</th>
<th>Dongguan Wei Sheng Drink Co., Ltd.</th>
<th>Shenzhen Yong Zhi Cheng Trading Co., Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date of Establishment</strong></td>
<td>1994</td>
<td>1997</td>
</tr>
<tr>
<td><strong>Business Nature</strong></td>
<td>Trading</td>
<td>Trading</td>
</tr>
<tr>
<td><strong>Number of Employees</strong></td>
<td>150</td>
<td>120</td>
</tr>
<tr>
<td><strong>Family Members Recruited</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Generation</strong></td>
<td>Founder</td>
<td>Founder</td>
</tr>
<tr>
<td><strong>Management Involvement</strong></td>
<td>Owner-controlled</td>
<td>Owner-managed</td>
</tr>
<tr>
<td><strong>Organisation Structure</strong></td>
<td>5 departments</td>
<td>4 departments</td>
</tr>
</tbody>
</table>
Two of the interviewed firms, Fu Hong Yi (Firm A) and Shun Loong (Firm B), are considered small because they have fewer than 100 employees. The other two, Wei Sheng (Firm C) and Yong Zhi Cheng (Firm D), are medium-sized firms, as they have between 100 and 300 employees. Firms A, C, and D were established in the 1990s and Firm B, in the mid-2000s. All companies are engaged in trading and wholesaling consumer products.

The four owners (and founders) are the main data sources for this study; thus, their interviews took up the most time—about three hours each. They had been the owner-managers since the establishment of their firms. The owners of firms A, C, and D had a high-school level education, while the owner of Firm A only finished primary school. Table 4.2.2 presents the demographic details of the four interviewed firm owners, and an analysis of each firm is presented in the following sections.

### Table 4.2.2: Owner-Manager Demographics

<table>
<thead>
<tr>
<th>Company</th>
<th>Sex</th>
<th>Age</th>
<th>Education</th>
<th>Current Position</th>
<th>Firm Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm A</td>
<td>F</td>
<td>44</td>
<td>Primary</td>
<td>Owner-manager</td>
<td>Shenzhen</td>
</tr>
<tr>
<td>Firm B</td>
<td>M</td>
<td>46</td>
<td>High School</td>
<td>Owner-manager</td>
<td>Guangzhou</td>
</tr>
<tr>
<td>Firm C</td>
<td>M</td>
<td>45</td>
<td>High School</td>
<td>Owner-controller</td>
<td>Dongguan</td>
</tr>
<tr>
<td>Firm D</td>
<td>M</td>
<td>45</td>
<td>High School</td>
<td>Owner-manager</td>
<td>Shenzhen</td>
</tr>
</tbody>
</table>
4.3) Case Analysis

4.3.1) Firm A (Shenzhen Fu Hong Yi Co., Ltd.)

The owner, Mrs Wang (aged 44), and her brother established the company in 1996, starting as a second-tier soft drink wholesaler receiving goods from the sole distributor of the Coca-Cola Company in Shenzhen. Both siblings only have primary education. Mrs Wang now has sole control, though, as her brother left the company years ago. Her husband is a government official and has never been involved in the business. Firm A, a small, simply structured traditional private company with 60 employees, later became a trading company with its own customer base, and now sells various branded food products, catering mainly to Shenzhen. The owner is fully in charge of sales, and her brother-in-law helps her handle the back-office support functions, such as finance and administration. The management team includes one externally recruited sales manager and a warehouse manager (the owner’s uncle). The owner transformed and upgraded the firm into a food trading company from its beginnings as a single product, second-tier wholesaler through family support. Mrs Wang values working experience over academic background, and thus hired the sales manager on this basis. She said, 'It is good to have an experienced manager with a strong academic background, but it is too expensive. If I have to make a choice, I choose good experience over strong academics.'

Seeing the rapid developments in the consumer market and the management system upgrading of many first-tier wholesalers, the firm owner recognized the urgent need to catch up with market changes and acquire new knowledge. Two years ago, she decided to recruit an experienced sales manager who had worked for large foreign companies. The sales manager, who was given a higher salary, implemented a series of measures to improve the firm’s sales. First, he imitated large companies and established a sales
management system by dividing the market into two sales regions under the oversight of two sales supervisors. Second, he provided some informal training for the sales team by sharing with them the experience he gained from the large companies he used to work for in order to improve their capability and upgrade their knowledge. Finally, he wanted to upgrade the team’s computer system to boost sales and perform market information analysis. However, the owner was reluctant to provide extra resources for the software upgrade; instead, she bought a few desktop computers for the sales team.

After Mrs Wang’s brother left the firm, she recruited her brother-in-law, a university graduate with a business degree, to help her manage the firm’s back office. He had been the administration manager for a foreign company before joining Firm A. He set up various functions, such as accounting, administration, and warehousing when he assumed office. Initially, he tried to computerize the firm’s systems by setting up an IT team. However, owing to the firm’s limited financial resources, only the accounting system could be computerized (by outsourcing to a computer software company). The firm’s organisational structure is presented in Figure 4.3.1.

**Figure 4.3.1: Organisational Structure of Firm A**
The firm’s learning happens through informal training conducted by the sales manager. There are no regular management meetings within the firm, except for the regular weekly meeting of the sales department chaired by the sales manager. The company does not encourage its employees to participate in outside training programmes, as the owner is more concerned about work experience than academic backgrounds. She said, ‘I prefer to have people with extensive work experience rather than college degrees working for my firm. I think it is difficult for me to manage people with higher academic backgrounds.’

Externally, the firm totally relies on informal knowledge sharing through personal networks. The owner stated that ‘suppliers and customers are becoming very demanding since they request that their business partners speak the same language; there is no choice for us’. The company was unable to meet the requirements of its customers, such as the Hilton and Sheraton hotels, which was why she invited her brother-in-law to help her make the firm more systematic.

The owner stays extremely socially active in order to obtain market information through her personal networks; she maintains an especially good relationship with government departments through her husband, who has worked in government since graduating from high school.

To survive, the firm has aggressively developed business opportunities in retail sales. The owner says that this is the plan for the firm’s development and survival. She said, ‘It is not safe for the firm to rely on a single supply channel to provide what it needs. We have to exploit different business avenues and try to escape from the control of the
upstream suppliers’. She believes that developing various sales models and maintaining a good relationship with the government are the two key success factors in growth and survival.

4.3.2) Firm B (Shun Loong Emporium Ltd.)

Founded in 2005 by Mr Chan in Guangzhou, the firm is a second-tier wholesaler selling household products. It has two major departments: sales and accounting. The owner-manager is in charge of accounting and supply, and his older brother is responsible for sales and logistics. The owner had worked for multinational companies for many years before setting up the firm. Meanwhile, Mr Chan’s older brother has been working in this field for more than 30 years. He was invited by the owner to assist in managing sales and logistics, but he owns no shares in the firm. He uses his experience to coach the sales and logistics team, and his wife assists him in handling the daily deliveries. Therefore, three family members are involved in the firm’s daily operations: the owner, his brother, and his sister-in-law.

The firm is totally dependent on first-tier wholesalers for its supplies, as it has no direct contact with a principal supplier. All customers are the personal contacts of the owner’s brother, which is why it is he who supervises sales. Support functions, such as accounting and supplier contact, are the owner’s responsibility. The firm’s organisational structure is shown in Figure 4.3.2.
The firm has no computerized system except for its accounting function, which has been outsourced to an accounting firm. All data and materials are kept in paper documents. The firm holds no regular meetings; casual discussion is its main communication tool, as most of the management team members are related.

Employees rely on the coaching of the owner and his brother. Drawing from his work background, the owner provides basic training for the staff and is responsible for the company’s system. The owner also makes good use of the personal network he established in his previous working relationship with first-tier wholesalers—a distinct advantage in procuring supplies. For market information and knowledge acquisition, the firm relies totally on the personal networks of the owner and his brother.

4.3.3) Firm C (Dongguan WeiSheng Trading Ltd.)

The firm started out as a small delivery venture in 1994. It was a contracted delivery provider for a large local company, Yili Dairy Products Ltd. (伊利牛奶), one of China’s largest dairy products manufacturer. In 1996, Mr Huang, the owner and founder,
decided to transform the firm into a trading company; it became the first-tier wholesaler for Yili. Mr Huang has a secondary education and was a truck driver before establishing the company. In 1994, he obtained capital from his family to enable him to open a delivery firm servicing Yili. In 1996, he got the agency rights from Yili to become a wholesaler serving Dongguan city. The company now has around 150 employees and a fleet of more than 15 delivery trucks.

The firm has five major departments: sales, marketing, finance, logistics, and purchasing. Sales and logistics represent the major chunk of the firm, where more than 70% of the staff work. All departments are managed by externally recruited managers who have no family relationship with the owner; no family members have been recruited into the firm. All department managers have achieved post-secondary education in a variety of disciplines, such as business and accounting. The firm’s organisational structure is shown in Figure 4.3.3.

**Figure 4.3.3: Organisational Structure of Firm C**
A small separate department, Internal Audit (IA), reports directly to the owner. It is not involved in the daily operation of the firm and is responsible only for ad hoc projects assigned by the owner. According to Mr Huang (in the interview), the IA department is responsible for setting control standards and conducting performance evaluations for all departments. He said, ‘I do trust my staff and I don’t need to watch them all the time. What I need is to set the control standard for them to follow.’

A customer service centre under the supervision of the marketing department centralizes all customer information for sharing within the firm. Aside from the basic computer system for daily operations, a separate system that keeps sales, market, and competitor data is available to all supervisory staff.

Apart from being a first-tier wholesaler, the firm also became the regional distribution centre for Yili Diary Products Ltd. in 2000. The firm invested in a computerized logistics system in order to meet the requirements of the regional distribution centre. Yili regularly provides training on new systems to upgrade the firm’s knowledge. However, after the ‘SanLu Melamine’ case in 2008, Firm C suffered a precipitous drop (80%) in its Yili wholesaling and distribution business. In 2010, Mr Huang decided to diversify the business into third-party logistics. He said, ‘Other than my core business, wholesaling, I plan to invest more money to build more logistics facilities, as I want to diversify my current business into a professional logistics provider. I believe the demand for logistics services in China will significantly increase in the coming decades, and this also eliminates the concentration risk.’
The internal training provided by the department managers is informal, mostly focusing on selling and negotiation skills. The employees’ continual development is encouraged by the firm; thus, self-learning is the most common way they update their knowledge. A number of accounting staff are now taking an accounting course at the Television Broadcasting University.

The training provided by the business partners is the only source of formal learning for the company, especially for new product knowledge and new system applications. Suppliers provide training for the firm, as they want it to keep abreast of their management system. This helps suppliers retain a firm control of the company.

Mr Huang involves himself in the social activities of the industry association and the government. Therefore, much information about the market and new government policies has been acquired and updated through him.

The owner is also willing to communicate with staff informally, usually after office hours. This provides a good opportunity for a friendly exchange of tacit knowledge between him and the staff. Mr Huang said, ‘Sometimes talking to my staff in a friendly environment is better than in (doing it) an office because they are more willing to tell you about the problems they are facing.’

4.3.4) Firm D (Shenzhen Yongzhicheng Trading Co. Ltd.)

The company was established in 1997 by Mr Li. Today, the firm has about 120 staff, making it a medium-sized firm by the study’s definition. The firm was a second-tier beverage wholesaler before setting itself up as a trading firm. The company was too
small to open a customer account with a beverage company, so that it had to get its beverage products from first-tier wholesalers, most of which were SOEs before China’s open door policy began. Firm D eventually became a first-tier wholesaler, servicing many multinational companies and establishing its own distribution network. It has four main departments, as seen in its organisational structure in Figure 4.3.4.

**Figure 4.3.4: Organisational Structure of Firm D**

The firm’s daily operation is tightly controlled by Mr Li, the owner-manager, but a number of managers with post-secondary education were recruited to manage various departments. No family members have been recruited. The company’s functional divisions are more detailed than those of the two small firms in the study. It has four departments: sales, marketing, finance, and logistics. Since no family members are involved, the externally recruited department managers play very important roles in the firm’s daily operation—a sign that the owner trusts them highly. Mr Li said, ‘*I cannot do everything; I need to depend on my staff. If I do not believe in them, the firm cannot go any further.*’

The owner makes every effort to build good relationships with his principal business
partners, such as Unilever, Wal-Mart, and Carrefour. Firm D works very hard to benchmark those large companies and thus improve its internal system. Mr Li participates in training events organised by his large suppliers and key retail customers, such as new product conferences and new system seminars. He also asks his sales and marketing managers to attend conferences offered by key retailing giants, wherein they can acquire valuable market information.

On top of the training provided by suppliers and customers, the firm encourages its senior staff to learn by themselves through their own networks. Two of the interviewed department managers are now taking a marketing course at Shenzhen University. Mr Li also participates in learning activities. He sometimes takes seminars offered by local institutions and industry associations to widen his knowledge, as he is just a secondary school graduate. In the interview, he said, 'I am from a remote rural area in Guangdong; my family was too poor to afford further education for me after secondary school. I needed to earn my own living because I am the oldest son in the family. I decided to come to Shenzhen to take my chances. I believe non-stop working and non-stop learning are the key success factors for me.' He tries very hard to improve his own human capital while making an extra effort to build up the social capital of the firm through his connections.

The firm does not allot a budget for staff training or development, but the owner encourages the staff to acquire updated market information and new knowledge outside the company. He dangles promotions to staff who obtain relevant academic qualifications from institutions of higher learning. The company has invested in a computer system and a financial reporting system because it needs to meet the
requirements of its business partners. However, the computer and financial information are held under tight security, and only a few senior staff can access the data. The owner said, ‘I need my managers to help me, but I also need control because internal data are valuable to my firm. I do not want to disclose them to my competitors.’

Sales and marketing meetings are held weekly, and a management meeting comprising the owner and four department managers is held monthly. The majority of the cross-function communication relies on informal discussions and e-mails among the staff. The owner also has casual meetings with the department heads after office hours, and during working lunches or dinners.

Like Firm C, this company set up a call centre last year to keep close contact with customers and provide them with services. The centre is in regular touch with the customers, processing orders and rendering after-sale services under the supervision of the sales department.

The firm is pursuing private label development to diversify its business. It is trying to build its own brands by imitating the large companies’ product strategies. For example, the firm is developing a series of consumer products under its own brand and selling them through its own distribution network, taking care not to directly compete with its principal suppliers.

4.4) Summary of the Main Findings

This study has identified the important factors in the development of Chinese SMEs’ learning strategies and capacities. The critical factors have been analysed under the
headings ‘human capital strategies’ and ‘social capital strategies’. The learning capacity factors (IT system support, the owner’s role and attributes, and the influence of the firm’s financial capability on its knowledge acquisition) have also been analysed. The findings are summarized in Table 4.4.1.

- Chinese SMEs prefer human capital learning strategies for tacit knowledge acquisition through informal learning.
- The larger the firm, the more the employees are encouraged to undergo explicit knowledge acquisition through formal learning.
- Chinese SMEs use social capital learning strategies to acquire new knowledge by building relationships with the government to gain a competitive edge.
- Chinese SMEs use social capital learning strategies to acquire new knowledge by joining industry-related associations and attending seminars hosted by business partners.
- Chinese SMEs with better IT system support have a higher level of explicit knowledge acquisition. The larger the firm, the higher the concern for explicit knowledge acquisition, and the more the IT system support is used.
- Owners who are more concerned about human capital prefer both explicit and tacit knowledge acquisition; those who are less concerned prefer the acquisition of tacit knowledge.
- Chinese owners play a dominant role in knowledge acquisition and disregard experience and educational backgrounds.
- Financial capability influences SMEs’ learning processes. The better the financial capability of the firm, the more it invests in explicit knowledge acquisition, and the more outside managers it recruits.
- Firm size is a factor in the knowledge acquisition of Chinese SMEs.
- A proposed conceptual framework has been developed by which SMEs may plan their learning strategies and enrich the literature on SME learning.

**Table 4.4.1: Summary of the Findings**

<table>
<thead>
<tr>
<th>Company</th>
<th>Human capital strategies</th>
<th>Formal and informal learning</th>
<th>Social capital strategies</th>
<th>IT system support</th>
<th>Owner’s attributes and role</th>
<th>Financial capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm A</td>
<td>Informal experience learning and verbal communication</td>
<td>Informal learning (verbal and casual communication)</td>
<td>Owner’s personal and government networks</td>
<td>Lower level of explicit knowledge acquisition and limited IT system support</td>
<td>Sole decision maker; less concern for human capital and tacit knowledge acquisition only</td>
<td>Weak financial capability to invest in explicit knowledge acquisition and fewer outside managers recruited</td>
</tr>
<tr>
<td>Firm B</td>
<td>Informal experience learning and verbal communication</td>
<td>Informal learning (verbal and casual communication)</td>
<td>Owner’s personal network</td>
<td>Lower level of explicit knowledge acquisition and no IT system support</td>
<td>Sole decision maker; less concern for human capital and tacit knowledge acquisition</td>
<td>No financial resources to invest in explicit knowledge acquisition and no outside manager recruited</td>
</tr>
<tr>
<td>Firm C</td>
<td>Experience learning and professional management with written and</td>
<td>Informal and formal learning (meetings and written communication)</td>
<td>Owner’s personal, business, and government networks</td>
<td>Higher level of explicit knowledge acquisition and strong</td>
<td>Main decision maker; high concern for human capital and</td>
<td>Strong financial resources to invest in explicit knowledge</td>
</tr>
</tbody>
</table>


Table 4.4.2 presents another finding concerning the performance of the four SMEs. Firms C and D experienced strong growth in sales revenue over the past three years, while Firm A experienced only a slight increase; Firm B’s revenues fell. This proves that SME performance is closely related to the learning strategies that the firms develop.

### Table 4.4.2: Sales Revenue of the Four Chinese SMEs

<table>
<thead>
<tr>
<th>Company</th>
<th>2008 (Rmb M)</th>
<th>2009 (Rmb M)</th>
<th>2010 (Rmb M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm A</td>
<td>45.5</td>
<td>52.0</td>
<td>55.0</td>
</tr>
<tr>
<td>Firm B</td>
<td>12.2</td>
<td>8.7</td>
<td>8.0</td>
</tr>
<tr>
<td>Firm C</td>
<td>53.5</td>
<td>73.6</td>
<td>90.5</td>
</tr>
<tr>
<td>Firm D</td>
<td>60.4</td>
<td>80.0</td>
<td>97.1</td>
</tr>
</tbody>
</table>

**4.5) Findings Analysis**
4.5.1) Human Capital Strategies and Knowledge Acquisition

Q1) How do human capital learning strategies affect the knowledge acquisition of Chinese SMEs?

Human capital is ability derived from formal education, knowledge accumulated from work experience, and industry-related knowledge acquired from on-the-job training (Madsen et al., 2003). The employees’ knowledge, business-related experience, and specific know-how are essential sources of knowledge for a firm (Liao et al., 2003). Therefore, the socialization of tacit knowledge exchange and learning from peers is an important process in firm learning (Menon and Pfeffer, 2003).

In Firm A, the average academic background of the management team is primary school and in Firm B, secondary school. They do not often use formal learning to acquire new knowledge. The owner of Firm A has only a primary level education. It is quite difficult for her to understand the causal effect of adopting learning techniques. She relies fully on her sales manager (who amassed substantial experience from the large companies he worked for before joining the firm) to upgrade the sales team by transferring his experience to them. The owner of Firm A explained, ‘I am just a primary school graduate; I know nothing about knowledge acquisition. All I can do is do what I know or invite someone to help me. The sales manager, who worked for large companies for years, learned many best practices from those large companies. He can share the knowledge he learned with us.’ The owner of Firm B shared the same feeling, saying, ‘I have worked for multinational companies for years. I understand the system and their way of doing business. I try to imitate their best practices and apply them to my operation. If I do not understand, I consult my old colleagues rather than my suppliers,'
who won’t be concerned about our needs, as we are just a small customer.’ Firm B relies on the owner’s tacit knowledge to run the firm without using any learning activities. The owner said, ‘There is no need for training and learning in my firm, as my brother and I run the firm, and we handle and control everything. We give instructions to my staff; they do not need to learn, just to follow what I say.’

The average academic background for the owners of firms C and D is secondary school. No family members are involved in the companies, and they rely on the externally recruited managers to see to the daily operations. They consider both the relevant experience and academic backgrounds of their senior managers to be important. About 70% of the two firms’ externally recruited managers are post-secondary graduates. Both owners believe that academic backgrounds and experience are both important for the company to grow. The owner of Firm B said, ‘Although I have only finished secondary school, I want all my department heads to be college educated; otherwise, my firm will not grow.’ Both firms encourage staff self-learning, although there is no budget or incentive scheme to support it. Firms C and D rely mainly on internal training conducted by senior department managers, as most of them are highly qualified and have wide business experience. Firm C’s owner said, ‘I do not have a good educational background, but I need my senior managers to have more knowledge to train my staff and grow my firm.’ This implies that they are more interested in human capital investment than other firms are.

This study found that the four SMEs’ learning relies on employees’ experience as a key source (see Table 4.5.1). However, firms C and D pay significantly more attention to human capital factors than the other two do. First, they have recruited no family
members, and all top management team members (other than the owners) are externally recruited. Second, the average educational level of their management teams is post-secondary. Third, the work experience of all department heads (non-family members) ranges from five to 12 years.

Table 4.5.1: Educational Qualifications and Work Experience of Employees

<table>
<thead>
<tr>
<th>Company</th>
<th>Education (college)</th>
<th>Work experience (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm C</td>
<td>75%</td>
<td>6 to 12</td>
</tr>
<tr>
<td>Firm D</td>
<td>70%</td>
<td>5 to 10</td>
</tr>
<tr>
<td>Firm A</td>
<td>10%</td>
<td>1 to 3</td>
</tr>
<tr>
<td>Firm B</td>
<td>5%</td>
<td>1 to 2</td>
</tr>
</tbody>
</table>

Successful learning strategies need the participation of the employees (Kelliher and Henderson, 2006). Encouragement is the best way to arouse an employee’s learning interest. Firms A and B have no reward schemes with which to motivate employees to participate in learning activities. In contrast, firms C and D strongly encourage employee learning, and their owners seem willing to reward employees’ self-learning and the achievement of higher qualifications by promoting them. Actually, quite a few staff members (six in Firm C and three in Firm D) are taking courses at a local television broadcasting university or other institutions of higher learning. Over the past five years, seven promotions have been made in both firms, and the salary adjustments for staff that have achieved higher qualifications have ranged from 20% to 25% (see Table 4.5.2).
A number of participants from firms C and D said they were willing to take formal training courses after work because they would be rewarded for their efforts. The deputy general manager of Firm C said, ‘I got a 25% salary increase last year because I finished a diploma course in marketing at Dongguan Polytechnic. I am very happy with it, and I am now pursuing another diploma in business at the same polytechnic. I also encourage the staff in my department to take relevant training courses on weekends or weekday evenings, as I am a living example for them.’

To summarize, it has been seen that human capital is a key strategy for Chinese SME knowledge acquisition, especially of tacit knowledge. This finding supports the view of Wang et al. (2009) that human capital is the key element in tacit knowledge acquisition for Chinese enterprises. The small firms, A and B, see personal experience as the most effective method of learning—a finding similar to that of Matlay (2000). The larger firms, C and D, believe that both personal experience and formal education are important.
4.5.1.1) Formal and Informal Learning

Firm structure affects learning, as information is distorted by complex communication flows (Matlay, 2000). In this study, firms A and B both rely completely on informal learning through experience. The learning in Firm A depends on the experience shared by the externally recruited sales manager, who worked for large companies for many years. Therefore, learning activities happen only in the sales department.

Firms A and B operate within a very simple structure due to their small size. The learning process in these two firms is quite short and simple—mainly through verbal and casual discussion, as formal meetings are not often held. Neither company holds formal, regular meetings; Firm A discusses business issues in the office or during lunch, while Firm B discusses business at dinner gatherings after office hours. The sales manager, who is the owner’s brother, believes that dinner meetings are very effective, as they are very much like family gatherings. The socialized knowledge exchanges between owner and staff take place informally (particularly after office hours) and frequently in firms A and B. The owner of Firm A said, ‘I like to talk with my staff after office hours or mealtimes, as I can hear more in a friendly atmosphere.’ The logistics manager also revealed that he could talk more frankly to his boss during after-office gatherings. This fact is consistent with the studies of Matlay (2000), Paige (2002), and Birdthistle (2006), which found that verbal and informal communication are the main learning tools for smaller firms.

Firms C and D maintain a relatively hierarchical structure, due to their larger size. Their learning activities cover both the experience and knowledge (explicit and tacit) components. Most of their training and knowledge sharing is conducted by externally
recruited senior managers. The deputy general manager of Firm C said, ‘I always do the training of my staff. I select one topic each month and discuss it with the team in a monthly meeting. This provides each one a chance to share his or her knowledge and experience with the other team members regularly. I also give comments at the end.’

Regular meetings are held within the departments and the firm. Weekly meetings are held to discuss the sales team’s routine operations and management meetings (attended by the owner), to discuss the cross-function issues within the company, thereby giving all members the opportunity to learn from each other. Monthly reports from each department are submitted to the owner and department managers. The owner of Firm C said, ‘We can discuss many problems in more detail in a regular meeting; all members can share their experiences and knowledge in the meeting as well.’ Therefore, communication within the firm occurs in both written and verbal forms. This finding is supported by the results of Matlay (2000) and Birdthistle (2006), who found that written communication tools were used in medium-sized firms.

This study found that the learning process of firms A and B depends totally on experience sharing among staff through verbal communication. They believe that being instructed by senior staff is the most effective way to learn and solve problems. Few formal meetings are held in these two companies, and individual discussion and dialogue are the most common methods of business communication and knowledge sharing. Informal and incidental learning is the main strategy for the two companies. The sales manager of Firm A said, ‘Informal is more casual, and there is less pressure, so we can discuss everything freely. Everyone in the firm focuses on fielding orders; we never have time to talk in the office.’ Conversely, firms C and D do not limit themselves
to informal learning; in fact, they prefer formal ways of communicating. Different levels of regular meetings are held within each department and the firm. Due to their larger size and staff, they like to use meetings for decision making and communication. The owner of Firm C said, ‘It is difficult to talk to every employee regularly, so we need meetings because we can hear from the staff and speak to the staff as well. Discussion in a meeting is more effective than writing e-mails.’ Therefore, formal learning is preferred by firms C and D (see Table 4.5.3).

**Table 4.5.3: Formal Learning in SMEs**

<table>
<thead>
<tr>
<th>Company</th>
<th>Formal and regular meetings (per month)</th>
<th>Number of regular written reports (management and departmental)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm C</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Firm D</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Firm A</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Firm B</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

We thus propose the following:

**Proposition 1a:**

- Chinese SMEs use human capital learning strategies for tacit knowledge acquisition through informal learning conducted by experienced and educated managers.

**Proposition 1b:**

- The bigger the firm size, the more the employees’ explicit knowledge acquisition through formal learning is encouraged.
4.5.2) Social Capital Strategies and Firm Learning

Q2) How do social capital learning strategies affect the knowledge acquisition of Chinese SMEs?

Social capital helps firm learning; thus, network management and network ties are key factors in SME learning (Liao et al., 2003). The social networks of firms A and B are wholly made up of their owners’ personal ties. Firm A receives government information through the owner’s husband, who has been a government official for years. Firm A’s owner said, ‘My husband can help me to deal with government issues and give me a lot of information on new policies.’ She believes that the relationship with the government is a crucial element of the firm’s success. The findings suggest that ties with the government are an important source of SME learning.

Firm B’s information source is a former colleague of the owner who works for a large company. Firm B’s owner makes an extra effort to maintain his relationships with colleagues in multinational companies, believing that they provide him with significant market information. He told me, ‘If I want any market information, I can contact my former colleagues; they will help me.’

Firms C and D have more diversified social connections and maintain very strong business ties. Both firm owners participate in social capital development, such as industry association events, seminars, and training sessions and conferences held by business partners. They also occasionally invite their business partners, such as upstream suppliers, to conduct training for their staff. Many suppliers invite them to attend various training events, such as new product launches, new technology seminars,
and quality control seminars. The firms’ management teams believe that much new knowledge and market information can be obtained through such programmes. The owner of Firm C spends a lot of time building his company’s relationship with the government, while Firm D’s owner attends social gatherings organised by industry associations and business partners.

The information collected by Firm C’s customer services centre and Firm D’s call centre are a good source of learning. As the customers’ data are stored in the system, the firm can understand customers’ behaviour and needs by analysing this explicit information.

In this study, knowledge sources tend to be associated with external parties or government agencies. In obtaining these knowledge sources, the importance of external social networks is acknowledged by all four firms. All social networking activities concentrate on getting new knowledge from outside parties. Firm owners and management team members are encouraged to maintain relationships with outside experts, business partners, and government organisations. The owners of firms A and B indicated that their personal networks and connections with government agencies were valuable social assets in obtaining unique and new knowledge. Firms C and D also revealed that having good connections with business partners and industry associations is an important tool (see Table 4.5.4).
Table 4.5.4: List of Industry-Related Memberships

<table>
<thead>
<tr>
<th>Firm</th>
<th>Membership in SME association</th>
<th>Membership in industry-related association</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm C</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>Firm D</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Firm A</td>
<td>Yes</td>
<td>0</td>
</tr>
<tr>
<td>Firm B</td>
<td>Yes</td>
<td>0</td>
</tr>
</tbody>
</table>

In summary, this study has found that knowledge sources are a key factor in SMEs’ adaptation of their own social networks. In firms A and B, the social networks tend to be confined to the owners’ connections. Within this context, social relationships are considered part of the owners’ personal networks, which are developed over time. For example, Firm A’s owner has spent much time building relationships with government officials through her husband’s connections since she started the company 15 years ago. The sales manager of Firm B said, ‘I took this position because I have the good external connections that this firm needs.’ In contrast, for firms C and D, social networks are considered a key factor, to be established across firm boundaries to connect to external knowledge sources such as business partners. For example, Firm C participates in training sessions and conferences conducted by its suppliers and occasionally invites key customers to run new product training for their staff. In order to obtain new knowledge sources, the use of social capital strategies is clearly important. In this study, the use of social capital is seen to reinforce social, business, and government ties among firms, and enhance learning and information sharing.

The above statements can be interpreted to mean that social networks are seen as an important factor in the learning process of Chinese SMEs. Thus, using social networks
and personal relationships is part of the local social context and personal connectedness. The social network and its cultural components, such as trust, should be further explored.

This study empirically supports the findings of Wang et al. (2009) that the social network is a key element in developing learning strategies for Chinese SMEs. This finding lends a new and more comprehensive perspective to the literature on SME learning: business, personal, and government ties are vital components of Chinese SME learning strategies.

We thus propose the following:

**Proposition 2a:**

- **Chinese SMEs use social capital learning strategies to acquire tacit knowledge by building relationships with government officials in order to gain a competitive edge.**

**Proposition 2b:**

- **Chinese SMEs use social capital learning strategies to acquire tacit knowledge from social and business networks by engaging in industry-related activities and seminars conducted by business partners.**

4.5.3) IT System Support and Firm Learning

Q3) How do IT systems influence the knowledge acquisition of Chinese SMEs?

Learning capacity is likely to be as important as the ability to manage specialized resources, such as the IT system (Barney, 1991). An IT system helps codify the explicit
information that firm members can access anytime they wish, and is therefore critical to a firm’s learning (Alavi and Leidner, 2001; Lee and Hong, 2002). In this study, IT system support is a generic term referring to the personal computer, the firm’s computer system, the Internet and e-mail, explicit knowledge, and the codification of explicit knowledge. All participants were asked to describe their firm’s IT system support.

The IT system closely relates to the codification of explicit knowledge. Firm A has only focused on developing an accounting system since they believe financial data to be the only useful explicit information. Firm B does not use an IT system and even outsources their accounting to a third party; the owner relies on tacit knowledge rather than explicit knowledge to run the business. He said, ‘I need experienced sales staff more than an accounting staff, as it is not affordable and useless to my business to retain a professional accountant.’ Thus, there are only manually recorded data and no codified explicit knowledge. Neither Firm A nor Firm B allocates resources to support a knowledge management system, as neither uses explicit knowledge acquisition. Firm A stresses that it is a small company and what it need is an external network. Company members spend most of their energy and resources developing relationships with government and business partners. Firm B also states that they need to focus their investments on tacit knowledge learning, such as experience in dealing with business partners; they believe this is more beneficial to their business. They also believe IT systems are just for large companies—for storing historical data for analysis. Neither firm has enough computers for operations. Firm B has only one set of computer for each department, and in Firm A, only the accounting department and the department heads are equipped with computers. These two firms believe that tacit knowledge is more important than explicit knowledge because the former brings more benefits to their
business than the existence of computer systems for explicit knowledge. Explicit knowledge in firms A and B remains primitive and limited; not enough explicit knowledge is provided for leaning and decision-making reference. Their learning depends completely on tacit knowledge (such as personal experience), and decision making relies totally on the owner’s judgment. This finding is similar to the views of Matlay (2000) and Paige (2002) that explicit knowledge in smaller firms is insufficient due to their lower level of IT support.

Firms C and D are both concerned with office automation and computer system development, which they need to help them meet their business partners’ requirements. They believe investments in information technology represent a kind of explicit knowledge development that will produce the vital information needed for business decisions. Firm C even set up a small IT team within the accounting department for computer system maintenance, while Firm D outsources maintenance jobs to a computer firm. More than 60% of the office staff is equipped with computers (see Table 4.5.5). They put their investments in accounting and logistics systems so as to set up a database for business development reference. The owner of Firm C said, ‘I plan to diversify the business from trading to logistics services; thus, the accounting and logistics systems are very important. Aside from my experience, I need more systematic information on these two functions; then I can plan the business for future growth.’ The owner of Firm D said, ‘I do not want to get into trouble with the tax bureau, so I need to have solid and correct data for support rather than waste money entertaining a government official. On the other hand, it is necessary to have data to support my business decisions, as my firm is getting bigger and bigger. It is not safe to make any important strategic decision based on my experience only.’
The two firms want to gain better explicit knowledge by investing in reasonable computer systems for all the firms’ major functions. This explicit knowledge will help them adjust their strategies and make effective business decisions. With better IT systems and explicit knowledge support, learning in these firms will take a variety of approaches, such as personal experience sharing and regular meetings.

In the interviews, the nature of the current use of IT support varied among the owners and senior managers. It was found that three firms (except B) have real IT system support, including e-mail; e-sales; ordering, accounting, and ERP systems; logistics; and warehousing management systems. All participants agreed that they need IT system support to develop the explicit knowledge that will help them run their business. It was also found that firms failed to develop or upgrade their IT systems and equipment not only because of a lack of capital but also because of concerns about explicit knowledge development. Firm B’s owner stressed that he needs personal experience more than explicit knowledge to run his firm. Firm A’s owner said, ‘The implementation of an IT system in a firm requires more time to think about the need and then the ability to use and analyse the explicit information generated by the system.’ The relationship between IT system support and learning was acknowledged by most participants. It is also clear that most participants relate learning to the IT system, the amount of explicit information available, and how that information is utilized. However, the personal perspectives of the firm owners and senior managers also influence the role of IT support; thus, the use of IT system support differs among the companies. Among the four SMEs, IT system use is significantly higher in the medium-sized companies (firms C and D) than in the small ones (firms A and B) because their concepts of explicit
knowledge acquisition differ. Overall, the medium-sized firms believe that the explicit knowledge provided by IT systems is imperative for business growth. However, the two small firms pointed at their lack of capital and the uselessness of explicit knowledge as their reasons for not using an IT system; the codification of information, IT system support, and explicit knowledge learning were thus not acknowledged by the small firms. This study also reveals that the owners of the two medium-sized companies are receptive to the idea of learning through IT systems; they appear to be planning to address future learning, as Firm C has decided to install a simple version of the ERP system within six months as a trial. Firm D also stated specifically that staff IT capability is important to the firm’s development.

Table 4.5.5: Number of IT Systems and Computer Equipment

<table>
<thead>
<tr>
<th>Company</th>
<th>Number of Computers</th>
<th>Number of IT Systems Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm C</td>
<td>105</td>
<td>4</td>
</tr>
<tr>
<td>Firm D</td>
<td>72</td>
<td>2</td>
</tr>
<tr>
<td>Firm A</td>
<td>10</td>
<td>1 (simple accounting)</td>
</tr>
<tr>
<td>Firm B</td>
<td>2</td>
<td>0 (outsourced)</td>
</tr>
</tbody>
</table>

We thus propose the following:

**Proposition 3:**

- *Chinese SMEs with higher IT system support have a higher level of explicit knowledge transfer and learning. The larger the firm size, the more concern it has for explicit knowledge acquisition, and the more IT system support it uses.*
4.5.4) Owner’s Attributes and Role

Q4) How do firm owners’ attributes and roles in learning affect the knowledge acquisition of Chinese SMEs?

In the literature review, we defined the owner’s attributes as his formal educational background and personal business experience. All four firm owners started up their businesses using their personal experience, as most of them only have limited formal education. Three of them are secondary school graduates, and one is just a primary school graduate (see Table 4.5.6).

Table 4.5.6: Education and Work Experience of the Owners

<table>
<thead>
<tr>
<th>Owner</th>
<th>Education</th>
<th>Working years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm A</td>
<td>Primary</td>
<td>15</td>
</tr>
<tr>
<td>Firm B</td>
<td>Secondary</td>
<td>20</td>
</tr>
<tr>
<td>Firm C</td>
<td>Secondary</td>
<td>17</td>
</tr>
<tr>
<td>Firm D</td>
<td>Secondary</td>
<td>18</td>
</tr>
</tbody>
</table>

The owners of firms A and B are the decision makers. All operational issues and strategic directions are decided or approved by them, as they want complete control. Since they have only primary and secondary education to back them, their firms do not have a solid knowledge management system; knowledge is gained mainly through personal experience. Knowledge acquisition in these two firms depends on the owners; they are the only sources of new knowledge and market information, obtained through their human and social networks, such as friends and family members. Therefore, knowledge transfers, especially of tacit knowledge, follow a top-down direction. This
finding is in line with Paige (2002) and Tsai (2007), who found that SME owners always dominate decision making and information sources. Firm A’s owner said, ‘I have a very close relationship with government; I always obtain first-hand government information from my own channel. I can share this information with my staff anytime I want.’ The two firms’ management teams draw from their work experience and the owners’ instruction in managing daily operations and dealing with daily problems. Firm A’s owner said, ‘I prefer spending money on relationship development over staff training because the employees may not work with the company for long.’

The owner’s attributes and role impact the exploration of learning resources; thus, SME owners can affect both internal and external learning processes (Tsai, 2007). The owner-manager of Firm B seems reluctant to learn and does not want to make any routine or norm changes in the firm or his relationships with business partners. This finding is supported by the view of Matlay (2000) that SMEs focus on the single-loop learning model. Firm B’s owner said, ‘I set up my firm with my own hands and I do not ask help from anyone. I can handle everything with my experience, although I am merely a secondary school graduate. Experience is my best teacher. I only need my staff to follow my instructions; they learn from me.’ The brother of Firm B’s owner said, ‘I have good experience in handling external customers, and the owner just focuses on the internal support. We have very good cooperation, and that is good enough.’

In contrast, the owners of firms A, C, and D accept new ideas by developing new business opportunities and external relationships with business partners and the government. Firm A’s owner expends much effort in maintaining good relationships with the government and looking for long-term relationships with business partners.
Firm D’s owner is keenly interested in developing new product opportunities with new suppliers. Firm C’s owner is relatively aggressive in searching for new business opportunities in order to diversify. This finding is supported by the healthy sales revenue growth of these three firms as compared with the poor performance of Firm B.

In firms A and B, most senior management positions are occupied by family members and close friends. The working atmosphere is family-like. The owners of these two firms like to recruit staff whom they know; thus, a number of employees were introduced by relatives who had been working in the firm for years. The logistics manager of Firm A even sent his daughter to work for the firm, as he trusts the second generation will learn more. Under such circumstances, knowledge (both explicit and tacit) is easily transferred and shared within the firm. More importantly, the firm’s culture is more likely to be understood by the employees and passed on to others. For instance, in the interview, Firm A’s owner and its logistics manager indicated that their management culture is one of ‘loyalty’. This also aligns with the finding of Tsai (2007) that loyalty is a key factor in SME development.

Firms C and D operate through comparatively formal routines (neither has any relatives on board). The companies have externally recruited a number of managers to take charge of various functions. Both count on these managers to train their staff and conduct knowledge sharing within the firm, as neither firm has a systematic approach to staff training. The owner of Firm C said, ‘I do not know how to train our staff because I am just a secondary graduate, but I need those department heads to coach their staffs, as they are all professional managers with good academic backgrounds, and I trust them to grow my firm.’
Another interesting finding is that Firm C has set up an internal audit department, under the direct supervision of the owner, to build up a control system within the firm. The audit findings will be discussed with the relevant departments in order to make improvements and will also be shared with management in the monthly management meetings. This department, not found in the other three firms, reinforces the double-learning process. The owner of Firm C said, ‘It is important for our firm to formalize its daily operations. Although I am not a formally trained accountant, I learned from experience that it is important to have a control system. We do not just learn from experience and error; we also have to correct our mistakes.’ This double-loop learning aspect is in line with the UK results of Matlay (2000), which show that double-loop learning happens in medium-sized firms.

Table 4.5.7: Owners’ Learning Activities over the Past 12 Months

<table>
<thead>
<tr>
<th>Learning activities</th>
<th>Sources of activities</th>
<th>Participating firm owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry-related events</td>
<td>Industry associations</td>
<td>Firms C &amp; D</td>
</tr>
<tr>
<td>Seminars and conferences</td>
<td>Business partners</td>
<td>Firms A, C, &amp; D</td>
</tr>
<tr>
<td>Government events</td>
<td>Government agencies</td>
<td>Firms A, C, &amp; D</td>
</tr>
<tr>
<td>Training course</td>
<td>Academic institutions</td>
<td>Firms C &amp; D (senior managers)</td>
</tr>
<tr>
<td>Exhibitions</td>
<td>Industry-related organisers</td>
<td>Firms A, B, C, &amp; D</td>
</tr>
</tbody>
</table>

The owners’ learning activities (see Table 4.5.7) provide some key findings. First, the owners’ learning covers informal and ad hoc learning across a range of activities.
Second, the sources of learning include professional, industry-related, business-related, and government bodies. Third, social networking is a major part of their learning. Firm A’s owner stated that he concentrates on government-related activities, while the owners of firms C and D said that they seek as many chances for social relationship building and knowledge learning as possible. This result suggests that personal experiences and skills, educational background, and the current sources of learning influence how the owners perceive the concept of learning. It appears that the owners’ view on learning has a significant impact on how the business operates and how learning happens for staff. The skills needed by the firms (expected from the staff), as defined by the owners, also influence the learning strategies.

We thus propose the following:

**Proposition 4a:**

- Owners with a higher concern for human capital prefer that their employees acquire both explicit and tacit knowledge, while owners with less concern for human capital prefer that their employees acquire more tacit knowledge.

**Proposition 4b:**

- Owners play a dominant role in their firms’ knowledge acquisition, while disregarding educational backgrounds and experience.
4.5.5) Financial Capability

Q5) How does an SME’s financial capability impact its learning process?

Financial capability is a critical factor in firm learning, as limited resources are a key concern for SMEs (Jun and Cai, 2003; Tsui-Auch, 2003). This study shows that the financial capabilities of different firms have varying impacts on their learning processes. Companies with weaker financial capabilities, such as firms A and B, cannot invest in knowledge management systems and thus experience lower levels of explicit knowledge acquisition. Firms with greater financial capabilities, such as C and D, can invest more resources in knowledge management systems, especially in computerized and office automation systems, leading to higher levels of explicit knowledge acquisition. For example, Firm A does not have staff to do their accounting and financial analysis; they rely on an outsourced accounting firm. The codification of knowledge is nearly zero in Firm B; there is no explicit knowledge to support learning, so that only personal tacit knowledge and trial-and-error learning occurs. Firm A’s has a simply equipped accounting system and a junior accounting clerk to handle their basic bookkeeping, representing a low level of explicit knowledge for firm learning. In contrast, firms C and D, with their greater financial capabilities, can allocate more resources to their computer systems, creating a codification of knowledge that supports a higher level of explicit knowledge acquisition. Firms C and D have recruited professional IT staff to support the firms’ operating systems. Firm C even plans to implement an elementary ERP system in six months. The deputy general manager, who is in charge of the IT department, said, ‘The ERP system can help us to consolidate all historical data and automate our daily workflow to meet the rapid business growth; it is a justified investment.’
Another finding of this study is that greater financial capability enables a firm to hire outside managers to enhance the learning process. Firms C and D are open to expending extra resources to recruit outside managers to run the firms. The department managers of both firms came from outside of the owners’ families and were recruited for their higher education and solid industry-related experience. This finding is supported by the proposition of Tsui-Auch (2003) that the greater the SME’s financial capabilities, the greater the chance that it will adopt a professional management system.

Firms C and D have put extra resources into new projects designed for business development and the diversification of risk. Despite being a regional distribution centre for Yili Dairy Products Ltd., Firm C wants to go into logistics on top of its current wholesaling in order to diversify its business scope. The owner plans to rent a plot of land next to his office for a warehouse extension. Firm D has been a first-tier food products wholesaler for many years, but the owner wants to develop a private label in order to diversify his business risk. The firm has registered some beverage and biscuit brands and has started importing OEM products from Thailand.

Firms A and B do not encourage any kind of formal learning for their staff; learning by experience and day-to-day work are their key approaches. Both strongly emphasise that financial difficulty is the main barrier to enhancing their firm learning. The other two firms, C and D, prefer informal on-the-job training for their staff, as this requires less investment; for them, investing in improvements to firm operations, such as IT systems, is a much higher priority than investing in staff development. None of the four firms has considered other forms of learning, such as on-line or formal on-the-job training.
We thus propose the following:

**Proposition 5:**

- *A firm’s financial capability influences the learning process of Chinese SMEs. The better the financial capability of the firm, the more resources it will invest in explicit knowledge acquisition, and the more outside managers it will recruit.*

4.5.6) Additional Findings

In the findings for questions 1, 3, and 5, there is an interesting factor which affects learning strategies and capacities: firm size. Thus, there is a positive correlation between firm size and learning strategies and capacities. The findings are highlighted below:

- The larger firms encourage staff to acquire knowledge through formal learning more than small firms do (Proposition 1).
- The larger the firm size, the more concerned it is with explicit knowledge acquisition (Proposition 3).
- There is a positive correlation between financial capability and firm size: larger firms have better financial capabilities (Proposition 5).

4.6) New Conceptual Model Developed

Based on the foregoing analysis and findings, this study developed a comprehensive conceptual framework for the learning strategies of Chinese SMEs. The framework presents the key learning strategies and learning capacity factors that affect knowledge acquisition in Chinese SMEs. The new conceptual framework developed from this study is illustrated in Figure 4.6.1.
Figure 4.6.1: Conceptual Framework for SME Learning and Performance, Based on Empirical Data

The framework describes the interaction between human capital and social capital strategies in Chinese SME knowledge acquisition. The framework also identifies the key factors affecting the capacity for knowledge acquisition: IT system support, owner’s attributes and role, and financial capability.

The human capital strategies (including formal and informal learning) are prime considerations in SME learning strategies; this finding is similar to that of Matlay (2000). Most SMEs rely on tacit knowledge acquisition, a kind of knowledge acquired mainly through personal knowledge exchanges and experience sharing. Therefore, the individual’s educational background and work experience play essential roles in firm learning, especially for SMEs, which usually adopt informal learning.
The social capital strategies (such as personal, business, and even government ties) are also major considerations in SME learning strategies. This finding is in line with the study of Tsai (2007) on SME learning in Taiwan. In this study, social capital plays a very active role in SMEs’ learning process. Chinese SME start-ups are mainly grounded in their owners’ industry-related experience and social networks, so that business growth and performance hinge on the owners’ social connections. Chinese SMEs’ market information and business development opportunities rely fully on social networking. Owners repeatedly stressed that they ‘build the relationship on friendship, and then we build the business on the relationship’.

The learning capacity factors of IT system support (consisting of IT system applications and computer investments) are also a key consideration in explicit knowledge acquisition for SMEs. This finding is similar to the study of Paige (2002), in which ICT (Information Communication Technology) is used for explicit knowledge acquisition in a small business. Overall, there is scope for all SMEs to exploit their use of IT; they all realize that IT systems are necessary for the company’s growth, development, and in some cases, survival. It has also been shown that upgrading the firm’s skills and IT competence is being contemplated by many SME owners.

The owner’s attributes and role are also crucial factors in SME learning, as the owners’ understanding of FL and their commitment to learning activities determine the learning capacity of SMEs. The owners’ commitment to learning is affected by their own business experience, formal academic qualifications, and drive and ambition (Paige, 2002; Thorpe et al., 2005). The findings of this study support this perspective.
In addition to IT system support and the owner’s attributes and role, financial capability strongly influences the knowledge acquisition capacity of SMEs. Tsui-Auch (2003) and Paige (2002) found that the SMEs’ financial capability impacts their knowledge acquisition. This study indicates that the better the financial capability of the firm, the more it will support learning by investing in IT systems and recruiting more outside professional managers. Explicit knowledge acquisition is strengthened through the codification of knowledge by IT systems and tacit knowledge acquisition, through the experience sharing of professional managers.

In summary, the strategies and factors described in the new framework are essential for SMEs to manage and consider in order to shape their learning strategies. Owners and top management should ask themselves a number of pertinent questions: How can we develop our learning strategies, what are the key factors that affect this process, and what constraints do we need to address? How will our human and social capital strategies facilitate knowledge acquisition and sharing? How can we use IT tools to manage explicit knowledge in order to improve our learning capacity? How will the owner’s attributes and role affect our learning capacity? How will our financial capability influence the firm’s learning process? Knowledge acquisition and an understanding of how learning strategies improve performance will become key aspects in the survival and success of SMEs.
4.7) Conclusion

This chapter reports the findings of the interviews conducted for this research. First, a basic introduction to the interviewed Chinese SME firms, which included company history and structure, owner profile, and general operational information, was presented. Then, the learning strategies affecting the Chinese SMEs’ knowledge acquisition, including human and social capital, were discussed. Third, the factors affecting learning capacity (IT system support, the owner’s attributes and role, and financial capability) were outlined. Finally, a proposed conceptual framework for future studies of Chinese SME learning, based on empirical data from the findings and analysis, was developed.

The contribution of the research findings, implications of the theories, and practical managerial implications will be discussed in the next chapter.
Chapter 5 - Discussion and Conclusion

5.1) Introduction

This chapter focuses on the study’s contributions by discussing its theoretical and practical implications. The limitations of the study and future research recommendations will also be discussed.

5.2) Discussion

The study’s findings emerged from an analysis of the data drawn from the research questions that investigated the learning strategies and learning capacities in the knowledge acquisition of SMEs in China. A number of contributions are made concerning the firms’ current participation in learning activities.

5.3) Theoretical Implications

The present study contributes to the entrepreneurship literature by exploring the important issue of SME firm learning in China’s emerging economy. The analysis of the issue from the perspective of learning capacities and learning strategies deepens the understanding of SMEs’ start-up, survival, and growth in this economy. By applying the human capital, social capital, and learning theories, this study adds rich insights to the literature.

5.3.1) Theoretical Framework of SME Learning in China

The major contribution of this research has been to facilitate the future study of SME learning in China by proposing a theoretical framework based on empirical findings and the application of learning theories. The proposed conceptual framework provides
researchers with a series of variables for designing their study of SME learning and knowledge acquisition, especially as regards non-manufacturing tacit knowledge, since very limited research has been conducted on China’s non-manufacturing SME sector.

The proposed conceptual framework developed by this study contributes to the research on the interface between SMEs and knowledge acquisition. It furnishes a theoretical framework for SME knowledge acquisition and conceptualizes that the learning process is significantly influenced by their human and social capital learning strategies and learning capacities. The framework was developed using the qualitative approach, but it brings a new perspective that will support academics in their further study of SME learning.

It would be informative to explore the situated nature of SME knowledge acquisition. According to previous studies, it seems to be definitive that human capital, social capital, and learning capacities influence learning and growth. This study offers a holistic view of the knowledge acquisition of SMEs and gives practitioners and academics a more meaningful analysis of SME learning.

Another significant contribution of this framework is the identification of firm learning capacities as an important moderating factor in the knowledge acquisition and learning processes. It emphasizes SMEs’ ability to learn, as influenced by three factors: IT system support, the owner’s attributes and role, and financial capability. Therefore, the concept of learning capacity allows the examination of the tangible and intangible factors that affect knowledge acquisition at company level. These factors are managed by the SME owner-managers, who manipulate them to encourage their teams to engage
in knowledge acquisition. The concept of learning capacity provides valuable insight into why SME firms find it difficult to acquire tacit knowledge, or even access explicit knowledge within their firms. Thus, this concept offers a meaningful tool for analysing knowledge acquisition in SMEs. A contextual understanding of human and social capital learning strategies and capacities in relation to SME performance is critical.

Previous studies have concentrated on the direct relationship between human capital, social capital, and learning measures in SMEs; few studies have examined the factors influencing the learning capacities, which are the true facilitators of performance improvement. This study proposes, therefore, that effective learning strategies and capacities can contribute to tacit and explicit knowledge acquisition and impact the firm performance that forms the basis of firm learning.

Knowledge acquisition does not figure high in the agendas of most of the Chinese SME owner-managers in the sample. Furthermore, learning strategies and learning capacities for knowledge acquisition, especially for tacit knowledge, are neglected by most of the SME owners. This short-term view resulted in the loss of many knowledge acquisition opportunities. However, this study confirmed that knowledge acquisition, mainly for tacit knowledge, has been occurring in most of the SMEs in the sample. Importantly, the majority of SMEs manage their learning capacities through human and social capital learning strategies to improve their business performance. This conclusively confirms that tacit knowledge accumulation, a crucial element in SMEs’ operation, relies mainly on the human and social capital factors of Chinese SMEs. This study is an extension of that of Paige (2002), which shows that industry-related experience is the main source of knowledge for Australian SMEs.
5.3.2) Human Capital Learning Strategies and Firm Learning

This study contributes to the literature of SME entrepreneurship by confirming that informal, unstructured, and personally embedded work experience sharing represents SME knowledge acquisition. Most SME knowledge acquisition tends to be practical, industry-related, and conducted on a face-to-face basis. The main sources of existing knowledge are the firms’ human capital, such as experienced staff, family members, and the owners. For example, staff training at the small Firm B is conducted mainly by the owner and his brother. This conclusion extends the study of Tsai (2007), which found that the SME owner was the main source of knowledge in Taiwanese SMEs.

The study’s findings confirm that human capital is a unique resource for tacit knowledge in Chinese SMEs. The owner-managers and department managers were identified as the major firm knowledge resources in all study samples; it is their human capital that is used to shape their learning strategies for knowledge acquisition. In this regard, the learning process strongly depends on the embedded personal experiences within specific contexts. It is concluded that SMEs’ tacit knowledge acquisition strongly depends on human capital learning strategies. Creating an environment that fosters existing human capital or enables access to new experiences may encourage knowledge acquisition, especially that of tacit knowledge. Thus, most of the sample firms count on informal experience sharing among employees and coaching by senior managers. This conclusion is an extension of the study of Matlay (2000) in the UK, which found that informal coaching and mentoring were the main learning modes in SMEs.

With the intention of examining the theoretical evidence that SMEs’ human capital learning strategies significantly influence knowledge acquisition and business growth,
this study investigated the relationship between human capital learning strategies, knowledge acquisition, and firm performance. The findings confirm that the sample SMEs mainly focus on their staff’s informal tacit knowledge accumulation, such as industry-related knowledge, in order to fortify their business performance. However, some of the sample firms do encourage their staff to enrol at institutions of higher learning after working hours. This study concludes that SMEs’ tacit knowledge acquisition and business growth are significantly influenced by human capital strategies in China. This finding extends the UK study of Matlay (2000), which found that human capital plays a significant role in the firm learning of SMEs.

5.3.3) Social Capital Learning Strategies and Tacit Knowledge Learning

The second contribution of the study is its finding that SMEs are able to acquire external knowledge by social capital learning strategies. Social capital consists of ‘strong’ and ‘weak’ network ties linked to the density of the available relationships (Yli-Renko et al., 2001). Social capital facilitates knowledge transfers; thus, the ability to manage the network is a key success factor in knowledge acquisition for Chinese SMEs (Liao et al., 2003). This study shows that managing the networking relationships broadly embedded in society to obtain knowledge is very important. Strong ties facilitate knowledge acquisition (Meeus et al., 2001). Firm A, for instance, has a very strong relationship with government officials, which help it collect government information. Conversely, weak network ties provide access to a broad range of knowledge (Minguzzi and Passaro, 2001). Firms C and D have more extensive social and business relationships, allowing them to acquire various types of knowledge from different clusters of networks, such as business partners and industry associations. It can be concluded that Chinese SMEs can acquire tacit knowledge to create competitive
advantages for growth through networks that include both strong and weak ties. Very little research has been done on SME learning in China from this perspective; thus, this theoretical conclusion is an extension of the study of Tsui-Auch (2003), which found that the learning strategies of Chinese SMEs in Singapore relied heavily on business partners.

The study findings confirm that social capital learning strategies are determinants of a firm’s tacit knowledge acquisition. Most of the sample firms acquire tacit knowledge from various networks, including government agencies and business and personal ties. This is beneficial to an SME’s exploratory learning if the information furnished by a network is heterogeneous. The findings show that most sample firms maintain very close contact with government agencies, an important tacit knowledge source. This illustrates that information is still controlled by the Chinese government, even for SMEs. Previous research on government relationships concentrates on large Chinese firms and neglects to examine the role of government ties in SMEs’ knowledge acquisition. This finding makes a theoretical contribution to the literature on Chinese SME learning.

5.3.4) IT Learning Capacities and Explicit Knowledge Acquisition

The third contribution is made to the study of explicit knowledge acquisition in SMEs. This study shows that most sample firms realize that an IT system allows SMEs to codify information, but they are also faced with many challenges, such as financial constraints and scarce human resources. This study extends the study of Ongori and Migiro (2009) on the ICT adoption of SME learning from South Africa to China, and argues that there is a close relationship between IT system support and explicit knowledge acquisition; no studies have been conducted on IT learning support for the
knowledge acquisition of Chinese SMEs.

The findings also confirm that the relationship between the codification of information and explicit knowledge management was not really understood by the owners of the small firms, while the benefits of explicit knowledge acquisition through IT system support were well recognized by owners of medium-sized firms. This finding is an extension of the study of Matlay (2000), which argued that firm size impacted the explicit knowledge acquisition of SMEs.

5.3.5) SME Owners’ Learning Capacity and Strategic Role in Firm Learning

This study addressed the SME owners’ strategic role in firm learning and knowledge acquisition from the perspective of learning capacity. The result extends the study of Tsai (2007) on organisational learning in Taiwanese SMEs, which found that the owners played a dominant role in the learning process.

The findings of this study suggest that the human capital of the owner-manager is a vital resource. Learning strategies correlate with the owner-manager’s background and ambitions. The owner-managers’ learning is driven by their experience, educational backgrounds, and attitudes to learning. Owner-managers amassed knowledge by working in similar businesses before starting up their own firm or by gaining experience through trial-and-error. This study found that the owner-managers’ tacit knowledge is a key component in the configuration of firm routines, which are always informal and unstructured, since tacit knowledge exploration is more important to the operation of Chinese SMEs. It has been confirmed that tacit knowledge is a major success factor in Chinese SMEs’ development.
Owing to the flexible and simple structure of SMEs, the owner-managers quite effectively identify the skills and knowledge they need in their staff—mainly tacit knowledge and specific skills. Although all sample SMEs had a low level of formal learning, the owners of firms C and D revealed that they would be willing to encourage staff to participate in business-related training courses. Most firms provide on-the-job learning for staff orientation; the main barriers to staff learning are time and financial constraints, as indicated by most of the owner-managers in the interviews. It can be concluded that a firm’s financial capability is a key concern in an SME owner-manager’s decision about learning modes.

5.4) Managerial Implications

As discussed in the literature review chapter, research on Chinese SME learning has focused on technology absorption and innovation in the manufacturing sector, as China has been called a ‘world of factories’ for decades. However, very little research has looked into the non-manufacturing SMEs. To fill the gap, this study concentrated on the knowledge acquisition of non-manufacturing Chinese SMEs. The proposed conceptual framework tries to provide such companies with a reference by which they can plan their learning strategies for knowledge acquisition, as China has stepped into a knowledge-based economy after having been a low-wage and labour-intensive one. New knowledge acquisition of both explicit and tacit knowledge, is the best way to meet new challenges and improve firm performance. Facing keen competition from both large firms and foreign multinationals, Chinese SMEs should pay extra attention to knowledge acquisition by taking advantage of the huge local market demand.
The use of learning as a key SME competence is a collective responsibility, and it happens only as the result of successfully developed strategies and agreed management objectives (Gartner, 2001). The findings of this study suggest that SME owner-managers must follow a proactive management style that encourages employee commitment to learning because this is the basis of knowledge acquisition. Moreover, knowledge acquisition in SMEs involves both employee and owner. The recommendations below emerge from the literature review and the research findings, and are suggested as ways of formulating a learning strategy for Chinese SMEs.

- A training budget should be allotted to support employees’ learning. It is essential that employees know that financial support is available for their learning.

- Problems faced in firm operation should be viewed by employees as a learning opportunity. This dissertation’s literature review showed that informal learning is commonly adopted by Chinese SMEs. Thus, it is recommended that a ‘mentor approach’ be taken by the firms, enabling on-the-job training provided by experienced staff to those less experienced.

- Reward employees for learning. Tangible incentives (remuneration or promotion) or non-financial rewards (appreciation) can be effective factors in encouraging employee learning. By establishing an incentive scheme which recognizes learning results, an SME can create a sense of belonging.

- Identify best practices in other businesses. Chinese SMEs should identify the best practices of other firms and try to adopt them. Furthermore, the continuous internal evaluation of firm operations will identify areas needing improvement.
• Establish a two-way communication channel within the firm. Chinese SMEs should ensure a communication system exists that provides mutually understood instruction from the top and feedback from the bottom. Regular meetings with employees, company notice boards, and a suggestion box are good way to achieve this.

• Enable employees to access information any time they need it. Chinese SMEs should build an accessible information system to ensure that employees are able to get the information they need.

• Update the database of employee skills. Chinese SMEs can identify gaps in learning that need enhancement; the database can be maintained by IT systems.

• Spend resources on explicit knowledge learning. The study found that financial constraints are a barrier to employees’ explicit knowledge acquisition in Chinese SMEs. Appropriate resource allocation for explicit knowledge development is a key consideration in the management’s efforts to grow the business.

• Encourage staff learning. It is recommended that Chinese SMEs establish a communication system for staff learning requests. The requests should be evaluated based on the benefits to the employee and the firm and the cost impact on the firm.

• The study indicates that the highly performing firms (A, C, and D) adopted a professional management system by recruiting outside managers or partly
professional management members; Firm B, the company with the worst performance, did not. It appears that as Chinese SMEs face competition from foreign companies and large local firms, they must consider adopting professional management in order to improve their competitive advantages, survive, and grow.

5.5) Limitation of the Research

Although this study provides many contributions and implications, it also has some limitations. The main issue to be acknowledged is the problem of generalization. This study investigates the learning strategies and capacities of Chinese SMEs, and the studied samples are from China. Therefore, the findings of this study may be applicable to other industries that share characteristics with China. However, there may be some variance when applying this research to other countries, as there will be differences between China and those other countries.

Another issue is that the results of this study are limited by the small sample sizes; four sample SMEs may not represent the whole picture. As this is an exploratory study using the qualitative method, a limited number of interviewed participants and examined factors were involved. Moreover, the samples focused on the trading sector, and some variance might occur when the study is applied to other non-manufacturing SMEs, such as in the transport and retail sectors.

Moreover, most traditional Chinese SMEs are under the tight control of their owner-managers, and the employees may be reluctant to express their in-depth personal feelings because of the SMEs’ parental culture. Data collection is also a key limitation
for this study, as many Chinese SMEs were unwilling to provide solid figures, especially for financial and sales data. The figures shown in this study have been scanned by the SME owners before collection. Therefore, cross interviews with owner-managers and key senior staff were conducted to maintain reliability.

This study does not explore what specific types of tacit knowledge (such as marketing knowledge) Chinese SMEs need in order to create their competitive advantages. Further study could be conducted to investigate the relationship between tacit, explicit, and specific knowledge, and assist SMEs in improving their competitiveness and strengthening their business performance.

The final limitation pertains to the family factor. Most Chinese SMEs are family businesses, but this study does not address the influence of family characteristics on knowledge acquisition, such as trust level and family member involvement. This could be another important issue for further investigation.

5.6) Recommendation for Future Research

Future research should consider exploring the owner’s and senior managers’ capabilities, their experience in specific contexts, and the learning process in which the SME is engaged. Understanding the objectives and ambitions of owner-managers is essential because they and the management team have significant influence on the firm’s learning process. A networking system that helps leverage network knowledge also needs to be developed. Government ties would support the development of social capital learning strategies for knowledge acquisition in SMEs (Pittaway et al., 2004).
Although this study develops a conceptual framework for the learning strategies of Chinese SMEs through the qualitative method, it is recommended to apply this subject to a quantitative study to obtain statistical data for an empirical test, as more variables and samples can be examined for generalization. Second, it would also be valuable to extend the study into learning strategies and capacities because these two elements are crucial to SME learning. Third, regional differences are significant in China. From the economic development point of view, there may be differences between SME learning in coastal regions and in-land regions. It is sensible to conduct comparative studies among SMEs in different regions of China (e.g. comparing southern China with western China). Fourth, it is reasonable to study the learning issue according to firm size within the context of SMEs, as there are differences between small and medium-sized firms in this study. Finally, more critical studies on how knowledge acquisition is affected by the various business objectives of the SMEs are also recommended. Further study will allow researchers to have a more comprehensive picture on SME knowledge acquisition.

5.7) Conclusion

SMEs play a very important role in China’s economy, but they remain under-represented in firm learning (Shi, 2010, Jiao et al., 2009, Tsai, 2007). This study on Chinese SME knowledge acquisition has focused on the non-manufacturing sector. As discussed in the literature review, most recent research on Chinese SME learning has concentrated on the manufacturing sector (Cao and Chen, 2010; Chen and Lin, 2003; Lee, 2006; Sharif and Huang, 2010; Xie and Wu, 2003).

It is believed that SME learning represents the next step in the evolution of the
knowledge-based economy, as more SME owners become aware of the value of knowledge acquisition in business performance. Liao et al. (2010) argue that business growth requires new knowledge support and that true knowledge acquisition must be strategic and systematic. Hence, learning strategies and learning capacities are important to SME learning.

The fundamental challenge for SME owner-managers and the key to their business performance in the SME arena will be adopting effective learning strategies and managing learning capacities for knowledge acquisition. It is known that knowledge acquisition has a positive impact on firm performance. For instance, studies have shown that knowledge acquisition can reinforce the business performance of SMEs, both in China and the West (Tsai, 2007). However, how SMEs develop their learning strategies and capacities for knowledge acquisition (mainly tacit knowledge) has not been uncovered. This study explores the human and social capital learning strategies and capacities that influence knowledge acquisition. I combine theory with the evidence from my study to propose a conceptual framework that suggests that SME learning rests on the human capital and social network learning of stakeholders. Additionally, the management of learning capacities also has a great impact on the knowledge acquisition of SMEs.

I conducted this empirical study on the way learning strategies and capacities influence knowledge acquisition by analysing interview data and examining the kinds of strategies and capacities that can help SMEs acquire knowledge and improve their firm performance. All these can help in understanding how SMEs can acquire new knowledge and allow researchers to provide further advice to SME owners on how to
develop their learning strategies. First, informal training through the human capital strategy is important for tacit knowledge acquisition, as human capital training is positively related to tacit knowledge learning. Second, social networking learning also positively influences tacit knowledge acquisition, including all social, business, and personal network ties. Finally, learning capacities play essential roles in influencing the learning process.

This study addresses the role of human and social capital in Chinese SMEs’ knowledge acquisition. Additionally, I explored the role of learning capacities in SME learning and found that these capacities (including IT system support, the owner’s attributes and role, and financial capabilities) have a significant impact on firm knowledge acquisition and the learning process of Chinese SMEs. These factors can establish an integrated theoretical perspective from which to examine Chinese SMEs’ knowledge learning. This study also confirms that Chinese SMEs are able to acquire knowledge by adopting human and social capital learning strategies and capacities to maintain a competitive advantage against the fierce competition coming from large firms.

In this study, I try to bring together knowledge acquisition, learning strategies, learning capacities, and firm performance into a unified framework to study SME learning. The development of the framework was designed to provide researchers with a structure and a set of factors that can be studied using various methods.

The study contributes to the literature on SME learning and knowledge acquisition by adopting effective human and social capital learning strategies and by managing learning capacities in order to strengthen firm performance. From the research findings,
I conclude that learning strategies and capacities have a significant influence on knowledge acquisition among the four SMEs studied in the research.

China has been moving into a knowledge-based economy after having been a low-wage and labour intensive economy. Now, SMEs face great challenges. Upgrading and acquiring new knowledge to strengthen their ability is the best way to improve their performance. The proposed theoretical framework provides a very valuable and practical reference for SMEs by which they can plan their strategies for knowledge acquisition and improve their learning capacities in order to develop a competitive edge. Most importantly, the results of this study provide researchers with a series of variables for the further study of SME learning and knowledge acquisition, especially for the non-manufacturing sector in China and in other countries.
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APPENDICES
Appendix I (Consent Form)

Rowland Li
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Faculty of Business and Law
Level 3, University House
Corner King and Auckland Street
Newcastle 2300
AUSTRALIA

RE: The learning strategies and capacities of SMEs: An exploratory study in China

Dear Sirs,

I, ______________________________________, have read the information on the research project “The learning strategies and capacities of SMEs: An exploratory study in China”, which is to be conducted by Rowland Li from the University of Newcastle, and all of my queries have been answered satisfactorily. The research consists of an in-depth recorded interview to be held in my office/ the office of my manager.

I hereby grant permission for employees of __________________________________ to be approached by the researchers regarding their participation in the study. I give my consent freely and I understand that the project will be conducted in accordance with the Information Sheets, copies of which I have retained.

I understand I can withdraw my approval at any time, without penalty, and do not have to give any reason for withdrawing.

I understand that all of the information collected will remain confidential to the researchers and that all of the information gathered from the survey will be stored securely and once the information has been analysed the questionnaires will be destroyed. I also understand that my identity will not be revealed to anyone other than the investigators conducting the project without my prior consent.

Print Name: _______________________________________________
Signature: _________________________________________________
Date: __________________________________
Consent Form (Individual Employees)

Rowland Li
Newcastle Graduate School of Business
Faculty of Business and Law
Level 3, University House
Corner King and Auckland Street
Newcastle 2300, Australia.

RE: The learning strategies and capacities of SMEs: An exploratory study in China

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I give my consent freely and I understand that the project will be conducted in accordance with the Information Sheets, copies of which I have retained. I understand I can withdraw my approval at any time, without penalty, and do not have to give any reason for withdrawing. I am aware of my right to review and edit the transcript of the interview.

I understand that all of the information collected will remain confidential to the researchers and that all of the information gathered from the survey will be stored securely and once the information has been analysed the questionnaires will be destroyed. I also understand that my identity will not be revealed to anyone other than the investigators conducting the project without my prior consent.

Print Name: _______________________________________________
Signature: _________________________________________________
Date: __________________________________
Appendix I Consent Form (Chinese)

Rowland Li
Newcastle Graduate School of Business
Faculty of Business and Law, Level 3, University House
Corner King and Auckland Street, Newcastle 2300
AUSTRALIA

我____________________ 已经读过由 Newcastle 大学学生(李国瑛 Rowland Li) 进行的关于研究项目(中小型企业学习策略) 的资讯，而且所有的疑问均已得到满意的回答.

我同意:

● 参与这个长约(一小时) 的深入面谈
● 参加调查的地点为(受访者公司)
● 记录我的声音
● 回顾、编辑或删除讨论的记录

我同意自愿地参加这个研究而且自愿地表示同意. 我了解研究将会按照介绍函进行，我已经保有副本. 我知道我可以随时撤出研究，没有处罚，而且不一定要提供撤出的任何理由.

我了解所有的数据收集结果将会由研究员保密. 被收集的所有数据将会是保密的. 从深入面谈被采集的所有数据将会被安全地储存. 而且磁带和记录一经数据分析后将会被销毁. 我的身份，没有我的同意，对除了研究的调查员之外的任何人都不得披露. 而且，我已经有机会提问并得到令我满意的答复.

姓名:____________________
签字:____________________
日期:____________________

投诉条款:

这个研究已经由大学的人类研究道德规范委员会批准，批准号码: Bus-Law-XXXXX
作为研究的参与者，如您对在该研究中的权利有顾虑，或您对研究的研究员或第三者有投诉，大学请你向大学的人类研究道德规范官员投诉.

地址: Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308. 电话: +61 2 49216333, email HumanEthics@newcastle.edu.au
Appendix II (Information Sheet)

Newcastle Graduate School of Business
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Level 3, University House
Corner King and Auckland Street
Newcastle 2300
AUSTRALIA

For further information:
Supervisor: Dr. Karen Yuan Wang
Email: karen.yuan.wang@uts.edu.au

Information Statement for the Research Project:

The learning strategies and capacities of SMEs:
An exploratory study in China

Dear Madam/Sir,

You are invited to participate in the research project that is being conducted by Rowland Li and (Dr. Karen Yuan Wang) from the Newcastle Graduate School of Business. Rowland Li is conducting this study as part of his Doctor of Business and Administration Degree and (Dr. Karen Yuan Wang) is his research supervisor.

Why is the research being done?

The purpose of this project is to shed light on understanding management learning strategies of small and medium-sized family firm. The study mainly seeks to better understand “How do small and medium-sized family firms survive by developing their management strategies?”

Who can participate in the research?

Small and medium-sized firms are being recruited. We are mainly focusing on interviewing the owners and the senior managers of your firm. If family members who are also employed by your firm, they are
also target interviewees.

Your participation is entirely voluntary

Participation in this study is entirely voluntary. Your decision to participate, or to not participate, will not disadvantage you. If you would like more information, please contact Rowland Li c3098584@uon.edu.au or Dr. Karen Yuan Wang. If you do decide to participate, you may withdraw from the project at any time without giving a reason.

What would you be asked to do?

If you agree to participate, you will be asked to take part in an interview about the management learning strategies of the firm. The interview will be audio-recorded and transcribed. A transcription of the interview will be provided to you, and you may review your comments.

How much time will it take?

The interview will be in your office and take about an hour to complete.

What are the risks and benefits of participating?

This is entirely academic research project and there are no risks in participating. Participants will benefit from a greater understanding of the background to learning strategies in small and medium-sized family firms.

How will the information collected be used?

The data and information collected for this research project will be used for Rowland Li’s DBA dissertation only. No individual participants or participants firms will be named and identified in the dissertation or any other output of the research. The collected data will be stored in the locked cabinet in the research supervisor’s office, and the data will be stored for a minimum of 5 years. A summary of the findings will be available to participants on request by contacting the researcher at c3098584@uon.edu.au

What do you need to do to participate?

Please read this information statement and be sure you understand its contents before you consent to participate. If there is anything you do not understand, or you have questions, please contact the researcher at c3098584@uon.edu.au
Further information

If you would like further information please contact (Dr. Karen Yuan Wang) at (karen.yuan.wang@uts.edu.au) about the project.

Thank you for considering this invitation.

Yours sincerely,

Researcher: Rowland Li

Supervisor: Dr. Karen Yuan Wang

Complaints about this research

This project has been approved by the University’s Human Research Ethics Committee, Approval No. H-2010-1065.

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, please contact the researcher, or, if an independent person is preferred, to the Research Supervisor, Dr. Karen Wang, at Karen.yuan.wang@uts.edu.au.
日期

尊敬的被邀参加者，
我是李国瑛 (Rowland Li), 在 Newcastle 大学商学院学习工商管理博士学位的学生。我正在进行一个有关（中小型企业学习策略）的研究。作为研究的一部分，你被邀请参加这个调查。

你被邀请参与这项研究。如果你同意参加，你会被问及：

调研目的
本研究的目的是解释中小型企业和它们的管理学习策略之间的关系，以寻求对中小型家族企业如何通过强化管理策略来维持生存进行更好的理解。

调研对象
我们主要针对被抽样的企业的所有者、高层管理人员，以及在该企业任职的家族其他成员。

自愿参与
本调研完全基于自愿原则。您是否参与，将不会产生任何不利影响。如果您希望了解更多详细信息，请联络李国瑛先生。如您确实决定参与，您亦有权随时无条件终止调研。

调研形式
如果您同意参与，我们会安排您参加一次关于中小型家族企业管理学习策略的访谈。谈话内容会被录音和翻录，交谈记录将提供给您审阅。
所需时间
访谈在贵公司大约于一小时内完成

参与的风险和利益
本调研完全供学术研究之用，没有任何风险。参与者将会从调研中了解更多关于中小型家族企业管理学习策略的有关信息。

信息的使用
本调研所收集到的数据信息仅作学术之用。参与者个人或企业的名字将不会出现在相关论文或调研报告中。如有需要，我们亦可提供一份调研报告的摘要。

如何参与
在您同意参与以前，请仔细阅读此份声明，以确保您清楚了解其内容。如果您有任何疑问，请联络研究员李国瑛。

请点击这一介绍函并且在参加项目之前确定您理解它的内容。

参与这个研究完全地是你自愿的选择。只有那些同意参加的人将会被参与这个项目。无论你是否决定参加，你的决定不会对你有任何影响。如果你确定参加，你可以在任何时间退出，不需要给出任何理由。不会对你有任何影响。被收集的所有数据将会被保密，并且被安全保存。数据一经被分析，音带和抄本将被销毁。参与者的身份不会在任何报告中被识别。

如果你关心或想知道这个研究的结果，请向上述的地址联络我的导师(Dr. Karen Yuan Wang) karen.yuan.wang@uts.edu.au

谢谢您对这个研究的关注。

学生名字/联络电话或电邮
李国瑛
c3098584@uon.edu.au

电话 13602564833(中国) 96627828 (香港)

投诉条款：
这个研究已经过大学的人类研究道德规范委员会批准，批准号：Bus-Law-XXXXX
作为研究的参与者，如果您对在研究中的权利有顾虑，或者您对研究的参与者或者第三人有投诉，请向大学的人类研究道德规范官员投诉。

地址： Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle,
Appendix III
Semi-structure Interview Questionnaire

Part I: Personal and Business Demographics

- Your age? Your Gender? Your highest education level?
- What is your current position in the company?
- How long have you been working in the company?
- What business is the firm in?
- What age is the firm?
- What generation is running the firm?

Part II: How do human capital learning strategies affect the knowledge acquisition?

- What learning strategies have your firm adopted?
- How does your firm develop these learning strategies?
- Do you think working experience and formal education background is important?

Part III: How do social capital learning strategies affect the knowledge acquisition?

- Do you think that owner and your management members’ networking have influence on shaping your firm learning strategies?
- What social networks do you or your firm have connection?
- What social network activities do you participate?

Part IV: How does IT system influence the firm learning?

- What kind of knowledge management systems is used in your firm? How it works?
• How does your firm encourage and assist your staff to learn through the system?
• How does the learning system help your firm to be more competitive in the market?

Part V: How do firm owners’ attribute and role affect firm learning?

• Do you focus on education qualification or working experience for staff recruitment?
• Do you concern the staff learning? Do you participate staff learning activities?
• Do you have any self-learning?
• Do you think that owner and your management members’ previous formal trainings have influence on shaping your firm learning strategies? If it is case, then how?

Part VI: How does financial capability have an impact on SME learning process?

• Is there any budget set for supporting the employee training and learning? How does your firm to make good use of it?
• How does your firm to allocate the resources on IT system?
• How does your firm to match the competition from competitor?

Part VII: Any further comments regarding your firms’ ways of learning new strategies for enhancing firm’s competitive advantages in the industry.