

**Graduate School of Business
Curtin Business School**

**The Determinants of Growth in Small and Medium Enterprises:
An Empirical Study in the Logistics Industry in Hong Kong**

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Doctor of Business Administration
of
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DECLARATION

This thesis contains no material which has been accepted for the award of any other degree in any university.

To the best of my knowledge and belief, this thesis contains no material previously published by any other person except where due acknowledgement has been made.

Signature:

Date: 1st June, 2006

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ABSTRACT

Small and Medium Enterprise (SMEs) have contributed significantly to the economic growth of Hong Kong and it is worth investigating how they prosper. This study was based on an examination of a sample of SMEs in the logistics industry operating during the economic crisis in Hong Kong.

The factors influencing the growth of small firms are many, complex and erratic. The primary objective of this study was to test the determinants of SME growth. The research question addressed was how and to what extent the characteristics of the owner-manger, the nature of the firm, and company strategy, together with the economic and government factors, impact upon the growth of small business. This study was conducted in 2004, based on a survey of 102 SMEs within the logistics industry in Hong Kong SAR. By studying the factors contributing to the growth of SMEs, this research investigated and analyzed the characteristics of SMEs which were at least three years old during of the period 1998 - 2003. The appropriateness and the support of the determinants that affect SME growth were empirically analysed. The research design was quantitative in nature, testing various hypotheses and theories about the associations between perceived constructs. Outcomes were then compared with factual indicator data, subjected to multiple regression analysis and co-efficiency analysis.

The results of the regression analysis showed no tremendous incongruity compared to research conducted in previous studies, although there were some factors associated significantly and some factors associated positively but insignificantly with firm growth. Even though some findings appeared to be inconsistent with previous studies, the preoccupation of researchers and policy-makers worldwide with matters relating to SME growth was recognized. These empirical findings provide evidence that owner-managers may adopt different managerial styles and strategies as a consequence of the amount of growth desired, and the amount of risk they are

willing to assume. Of the four main factors identified as influencing the growth of small firms – the characteristics of the owner-manager, the nature of the firm itself, the business strategies adopted, and the external factors concerned - all these four components need to be combined appropriately for growth to be achieved. This means that it is very difficult to identify whether or not a firm will be a success or a failure. The significances of these factors and their impacts have been addressed and reported in the study.

Recommendations are made for business practitioners who are still trading, distinguishing between businesses with high and low growth expectations. Owner-managers are encouraged to acquire better management skills and qualifications to improve their managerial capabilities and experience. Appropriate strategic planning, technology advancement, education, training and government support are recommended for improving growth performance. In recognition of the need to improve small business growth, these research findings reveal that some of the factors considered important to success in Hong Kong small businesses are unique to the Hong Kong business environment. In this sense, the findings provide good references for scholars and policy-makers to design policies and provide assistance that are appropriate for use particularly in Hong Kong. Future research directions have been discussed and managerial implications for both practitioners and researchers have been suggested.

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CHAPTER 1: INTRODUCTION

This chapter discusses the rationale for studying the determinants of growth in small and medium enterprises (SMEs) in the logistics industry. An outline of the research objectives and the research questions addressed in this study will be identified. This chapter also discusses the economic background in Hong Kong and explains how it may affect the small businesses in the industry.

1.1. OVERVIEW OF THE STUDY – AIM AND OUTLINES

The emergence of Small and Medium Enterprises (SMEs) is recognized widely as frequently having a significant impact on economic development (Reynolds 1991; Wright et al., 1998; Jackson et al., 1999; Lau and Busenitz, 2001). It has been particularly evident that SMEs have contributed significantly to the economic growth of Hong Kong, and an insight into how they prosper is worthy of investigation. This study was based on an examination of a sample of SMEs in the logistics industry operating during the economic crisis in Hong Kong. Difficult economic circumstances wiped out many of the existing small businesses. Due to the high unemployment rate during this period, new enterprises appeared to replace the old ones. In this situation the remaining SMEs had to struggle continuously for survival in a competitive logistics marketplace (HKLD, 2001).

The research aimed to investigate empirically the determinants affecting the growth in established SMEs and the extent to which the characteristics of the owner-manager or the main decision-maker may influence their growth. A research model was developed to test the hypotheses and theory about associations between

constructs. Outcomes were then compared with factual indicator data, subjected to multiple regression analysis and co-efficiency analysis.

The factors influencing the growth of small firms are many, complex and erratic. By studying the factors contributing to the growth of SMEs, this research investigated and analyzed the characteristics of SMEs in Hong Kong which were at least three years old during the period of 1998 - 2003. The research analysed empirically the appropriateness and support of the determinants that affect SME growth. In addition, the research investigated the impact of these determinants on the growth of the surveyed businesses in the logistics industry. Recommendations can be made for those business practitioners who are still trading in businesses with either high or low growth expectations.

1.2. THE RESEARCH PROBLEMS AND OBJECTIVES

1.2.1. THE RESEARCH PROBLEMS

In spite of the statistical difficulties in defining small firms and defining business failure in different countries, there is general agreement that smallness and newness cause difficulties for businesses. Timmons (1994) summarised the new business failure rates over the last 50-year period prior to 1994: 23.7% of the failures occurred in the first two years, 51.7% occurred within four years and 62.7% occurred within six years. The chances of achieving sales in excess of 1 million dollars were small. One of the reasons is that poor preparation is common in entrepreneurship. The failure can also be attributed to a general downturn in economic activity, which little can be done about, but in other cases lack of knowledge, or experience in key business areas can lead to failure. Storey (1989) confirmed that lack of ability in technical and managerial areas could have serious consequences for future performance ventures. In his study of SME growth, he found that the rapidly growing firms had better preparation than the slow growers.

The determination of growth in large corporation has been researched thoroughly (Fotopoulos and Louri, 2004; Goldberg et al., 1981; Coughlan et al., 1985;

Siddharthan et al., 1982; Acs and Audretsch, 1989; Carrier, 1994), but similar research studies of small businesses with owner-managers are much less common in the economics literature, particularly those with a focus on the logistics industry. The aim of this study was to encompass the characteristics and strategies of the small firms and the owners' perceived determinants of the growth of SMEs in logistics industries. The industries include transportation, warehousing, logistics services, freight forwarding, and IT services and consultancy.

Management is dynamic and frequently changes. The progression or organizational change in successful SMEs may provide a modelling of management practices. Alternatively, the previous research on determinants of the SMEs' growth or success has focused primarily on the entrepreneurial, managerial, or other personality attributes of owner-managers (Tibbits, 1999). Not much recent research has examined empirically the total variance of determinants in the growth of SMEs. Moreover, the previous studies have tended to focus on specific factors or within any specific industries; fewer studies have focused simultaneously on external factors. The real picture of small business activities in Hong Kong has not been unveiled entirely in reflecting the determinants on SME growth. The existing studies have lacked systematic empirical evidence.

Small business research has been recognized as an important contribution to SME development. The private sectors have provided much impetus for economic development in European, America and Asian economies (Appold et al., 1996; Odagiri, 1997), particularly for long-term development (Acs and Audretsch, 1993). Most of the previous studies were based on the experience of small firms operating either in North America or in European countries (Luk, 1996). There has been no similar empirical study in logistics industries undertaken in Hong Kong. Therefore, this study attempts to examine the determinants affecting the SME growth in the logistics industry in Hong Kong.

The purpose of this study was to carry out such an investigation, with a view to making recommendations for more appropriate business support services at a local level. The businesses investigated in this study were set up in the six-year period prior to data collection (1998-2003), during which there was a dramatic change in the

number of SMEs in Hong Kong. This unprecedented expansion was halted by the recession, which began after the Asian economic crisis. Furthermore, government support had promoted strongly an enterprise culture for enhancing further expansion. Thus, the sample of business owner-managers under analysis embarked at a time when the social and political environment was encouraging entrepreneurship, but during their developmental period they experienced severe economic recession. While recognizing that the difficult economic environment would affect business performance and growth, the focus of this study is on the business, its owner-managers and its internal determinants of business performance, together with the broader external environment.

1.2.2. RESEARCH OBJECTIVES

Noting the preponderance of small business in Asia, the focus of the research was to investigate the determinants affecting the growth of SMEs associated with various outcomes. Among other things, the characteristics associated with success and growth potential are identified. Initial results suggested a higher success rate among business practitioners and this issue was investigated in detail. The objective of this study was to understand the external economic factors as well as the internal management practices that drive the outcomes of business growth in small firms. Thus the main research question addressed in the study was how and to what extent the characteristics of the owner-manger, the nature of the firm, and company strategy, together with the economic factors, impact on the growth of small business in the logistics industry.

1.2.3. THE RESEARCH QUESTIONS

The central research questions examined in this study are:

1. What are the critical factors which shape and influence the growth of SMEs?

2. To what extent do those factors, in term of characteristics of the owner-manager, the nature of the firm, and company strategy, influence SME growth in the logistics industry?
3. To what extent have external economic and government supports affected the growth of SMEs after the Asian economic crisis?

These are the main questions that have been addressed in this study, in order to fill a gap in the existing research and contribute to the understanding of the dynamics of small business growth in the logistics industry in Hong Kong. It is a well-known fact that the likelihood of failure among smaller firms is clearly higher than it is for their larger counterparts (Carrier, 1994). The employment record of the SMEs would improve, if, instead of failing, the SMEs could be assisted to reach a growth path. The present study asked what the determinants behind the firm growth are.

1.2.4. SPECIFIC RESEARCH OBJECTIVES

The focus of the research reported here was to provide information concerning the characteristics of the growth of SMEs in Hong Kong. As stated earlier, it was designed to accomplish the following specific objectives:

1. To explore and investigate the effects of management practices across logistics industries on the growth of established SMEs;
2. To examine both the internal and external factors significantly influencing the growth in established SMEs;
3. To document the practical implications of the current research for small business practice.

The answers to these specific objectives are then used as the basis of some general management guidelines for achieving firm growth. The thrust of this study is descriptive and should be considered preliminary to the subsequent development of a more general growth management theory. As stated earlier, the main objective of this study was to conduct an in-depth analysis for investigation of the determinants of growth in established small firms, and to arrive at an understanding of how the

determinants are related to their growth. This objective is important from both managerial and research perspectives. This research provides evidence about the determinants of small firm growth dealing with internal and external factors. It attempts to develop a meaningful model, incorporating as many significant variables as possible to explain variance in firm growth.

Managerially, businesses always strive for survival irrespective of the amount of pressure this might create. As a result, owner-managers face some constraints to changing the way in which they conduct their businesses in order to compete effectively in the marketplace, in relation to their personal characteristics, firm structures and business strategies. It would therefore be useful to identify the external economic environment and, in particular, the organizational strategy that owner-managers can leverage in order to improve their firms' performances.

From a research perspective, the study adapted Storey's (1994) growth model to develop the environment-conduct-outcome framework for small firms. The framework links the three key components of the entrepreneur, the nature of the firm and the business strategy, by studying the effects of these on the outcomes in small firms. The additional variables of external factors, economic difficulty and government support, were also included in this study. Further, in the proposed model, each component is represented as an interaction of multiple constructs with each other.

1.3. OPERATIONAL DEFINITIONS OF CORE TERMS

1.3.1. THE DETERMINANTS OF GROWTH

'Determinants of Growth' is a term coined for the purpose of this study to represent a range of possible positive or negative elements that, in isolation or in combination with other identifiable elements, may lead to the growth of a firm. Specific core terms of determinants are explained in the following sections.

1.3.2. THE CHARACTERISTICS OF OWNER-MANAGER

Experience is presumably one characteristic of the type of owner-manager who can be associated with the growth of a firm. The middle-aged entrepreneur is likely to have better experience, better credibility, better energy and easier access to resources, and so is more likely than younger counterparts to own a growing business. It is also expected that entrepreneurs with better growing firms would have more educational background and better levels of management experience (Cooper and Gason, 1992). Past experience in the sector prior to establishment of their businesses, rather than setting up a business without such experiences, is related positively and significantly small firm growth (Duchesneau and Gartner, 1990).

There is also some evidence from previous research that firms still being run by their founders grow faster and that businesses run by more than one individual are more likely to grow faster than single person-owned firms (Storey, 1994; Almus and Nerlinger, 1999; Davidsson et al., 2002).

Motivation is another factor that can explain why a business was established and that relates to the growth of the firm. Positive motivation may possibly relate more than negative motivation to the subsequent growth of a business (Barkham et al., 1996).

Finally, the unemployment push can act as a negative factor, with those businesses established by unemployed individuals being more likely to grow rapidly than those businesses operated by employed workers (Storey and Johnson, 1987).

1.3.3. THE NATURE OF A FIRM

A firm's growth may be affected by its age, size, or legal structure. Generally speaking, younger firms grow more rapidly than older firms; this reflects the need for a new business to grow quickly to achieve minimum economies of scale (MES). It is also interesting to look at the firm size - small firms tend to grow faster than larger firms do. It is also expected that a more rapid growth rate will be experienced by limited firms than by either sole proprietorships or partnerships, since limited

companies have the prime benefit of corporate status, limited liability, credibility from customers and bank support, less risk taking and higher capital investment (Storey, 1994).

1.3.4. THE FIRM STRATEGY

The use of formal strategic planning is defined in terms of the plans of an organization being written down. This is usually relatively long-term planning with objectives and goals being specified. Faster-growing firms are more likely to devise and implement formal planning procedures. Business strategy is another key factor that may affect the firm's performance. Porter (1980) suggested three generic business strategies: cost leadership, product differentiation, and focus (niche marketing strategy). Whilst recognizing the importance of this conceptual framework, for the purpose of this study the approach adopted was that these strategies could be desegregated into a series of more precise business development activities.

Technological sophistication is another important strategy for improving firm performance. Phillips and Kirchhoff (1989) stated that high technology small firms are more likely to grow rapidly, other things being equal, than those in more conventional fields. The more technologically sophisticated businesses are likely to grow faster than those with lower levels of technical sophistication. Furthermore, the likelihood of firms undertaking training for their staff appears to increase with the size of the firm. This question of whether staff training is related positively to growth may be another important one for investigation.

1.3.5. THE EXTERNAL FACTORS

The strongly fluctuating macroeconomic environment of the late 1900s caused Hong Kong to experience below-average rates of business growth. The economic difficulty mainly constitutes a constraint on the growth of the business. This period of recession is therefore an informative one for an analysis of the effects of economic

difficulty in affecting firm growth. Successful firms in this period seem to have had a better understanding than low-growth firms of role of the external environment in survival, while the low-growth firms have less sensitive reactions than high-growth firms when facing a poor economic environment.

Finally, but not the least, government support can play a dominant role in assisting small firms to grow better and stronger. Governments in many other developed countries have introduced legislation to assist the small business sector since their economies can be dominated by numerous small firms. For current purposes, it is appropriate to investigate the provision of government support associated with small firms growing more rapidly. This support comprises the provision of basic infrastructure, loans and tax incentives, information, advice and protection against competition from large enterprises, and education and training programs.

1.3.6. SMALL AND MEDIUM ENTERPRISES

There is no single, uniformly acceptable definition of a small firm (Storey, 1994). The definition of the role of small firms in an economy is problematic, and there are more than 30 different definitions to define a small business (Beesley, 1984; Storey, 1987).

Ganguly (1985) defined SMEs as follows:

‘A small firm has a relatively very small share of the market ... The firm is managed in a personalized way by its owner or part of the owner ... It is independent in that it does not form part of a larger enterprise and is free from outside control when making major decisions.’

The Bolton Committee (1971) formulated the SME definition that a small firm should meet the following criteria:

1. It is owned and managed by the same individuals, rather than by professionals on behalf of shareholders;

2. It normally has a small share of the marketplace, or a larger share of a very small market;
3. It is legally independent, in the sense of not being owned by another business, or not forming part of a larger enterprise.

The SME Information Centre (2000) said of SMEs:

‘Manufacturing enterprises are those with fewer than 100 employees and non-manufacturing enterprises are those with fewer than 50 employees.’

Wong and Sit (1992) have reviewed the government statistics and suggested that:

‘SME refers to owner-managers having their own business (or founders of their firms) with genuine independence, not a division, subsidiary, or franchise of the big corporations.’

In summary, SME in this study is defined as a manufacturing enterprise with fewer than 100 employees or a non-manufacturing enterprise with fewer than 50 employees. To be included in the study, owner-managers should have had their own businesses for at least three years, with genuine independence, not being a division, subsidiary, or franchise of a big corporation.

1.3.7. LOGISTICS INDUSTRY

Logistics management, traditionally, has been thought of as an independent service providing physical movement of commodities such as transportation, warehousing, freight forwarding and inventory. That is, logistics is the collection of activities associated with the purchasing, storage, and physical delivery of commodities.

The British Institute of Logistics and Transport defined logistics as:

‘the time-related positioning of resources, or the strategic management of the total supply chain with a sequence of events intended to fulfil customers’

satisfaction. It includes procurement, manufacturing process, distribution, and waste disposal, together with associated transport, storage and information technology.’

The U.S. Council of Logistics Management defined logistics as:

‘that part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers’ requirements.’

There have been remarkable changes and technological transformations in global logistics management in recent years. The logistics industry is no longer confined to independent movement of commodities. Each function is comprised of all the integral parts of total logistics management, including supplier management, logistics collaboration and partnership, logistics alliance, third-party logistics (3PL), fourth-party logistics (4PL), and outsourcing activities associated with the concept of total logistics solutions.

1.4. ECONOMIC BACKGROUND IN HONG KONG

The economy of Hong Kong, with a few exceptions, has been studied very little, particularly in relation to small business enterprises. The degree of dominance of small and medium scale establishments in the Hong Kong economy, their business nature and characteristics, and their entrepreneurial quality have been investigated to an even lesser extent (Sit, 1991).

1.4.1. THE HONG KONG BACKGROUND

Hong Kong lies to the southern part of Mainland China. With a total land area of about 1,099 square kilometres (Hong Kong Statistics, 2000), it is composed of the Hong Kong Island, Kowloon Peninsula and the New Territories. Most economic

activities are concentrated on the Hong Kong Island and the Peninsula, giving rise to one of the highest population and industrial densities in the world. Despite its small size, Hong Kong is ranked as the 9th largest trading entity in the world. Hong Kong's population in 2000 was estimated to be around 6,700,000, approximately 92% of whom are Chinese.

With South Korea, Taiwan and Singapore, Hong Kong is in many senses unique and is claimed to be one of the 'Four Small Dragons' in the Asian region. As Hong Kong is one of the leading cities it offers, in relation to the studying of small business, some interesting conditions and features that are worthy of investigation. When Hong Kong was ceded to the British in 1842, it was only a 'barren island with hardly a house upon it' (Chan, 1991; Yu, 1999). After a period of rapid post-war industrialization, the income of the economy had already reached to above six million Hong Kong dollars by 1970. Since the early 1970s it has been emerging further as a major financial centre in the Asian-Pacific region. Afterwards, in recent years, there was a rapid growth in the economy, with which Hong Kong became one of the richest economies in Asia (Chau, 1993). Hong Kong's development as a modern business centre took place as a colony under British rule, a situation which changed formally only on 1st July, 1997, when Britain ceded back the sovereignty to Mainland China.

After the return of sovereignty of Hong Kong to China, Hong Kong became a Special Administration Region (SAR) under one country two system management. The population consists predominantly of Chinese people. Hong Kong occupies an interesting position in terms of its historical and continuing economic dependencies. It has always been, and remains, vitally dependent upon external trade opportunities for any economic growth, yet has been enjoying much economic autonomy. Since the Asian economic crisis, Hong Kong has relied vitally on China's support for many major aspects of trading and, indeed, most other economic activities, such as manufacturing, logistics, and other services industries.

Many factors contribute towards Hong Kong's international reputation as both a leading manufacturing complex and a major commercial centre within Asia. These include an economic policy of free enterprise and free trade, the rule of law, an

industrial workforce, a sophisticated commercial infrastructure, and a harbour and airport that are amongst the world's finest. Following free trade policies, it provides a low, simple and predictable tax regime to encourage the creation of business. It also offers a level playing field to all enterprises: big or small, domestic or overseas, national or multinational. Based on a philosophy of maximum support and minimum intervention from government trade policy, and the increase of import and export activities, logistics services have naturally become one of the vital and important parts of industry in Hong Kong, and have gained much prominence in the economy, accounting for more than 10% of the GDP in 2000 (HKIC, 2000).

1.4.2. THE HONG KONG ECONOMY

Hong Kong has a bustling free market economy, highly dependent on international trade. Natural resources are limited, and food and raw materials must be imported. These activities rely crucially on logistics services to support the smooth movement between overseas countries and Hong Kong. Indeed, imports and exports, including re-exports, each exceed Gross Domestic Product (GDP) in dollar value. Even before Hong Kong reverted to Chinese administration in 1997, it had extensive trade and investment ties with the China market. Per capita GDP compares with the levels in the four big countries of Western Europe, and GDP growth averaged a strong 5% in 1989-97. The widespread Asian economic difficulties in 1998 hit this trade-dependent economy quite seriously, with the GDP decreasing by 5%. The economy seems to have been recovering, however, the pace of growth remains static or even non-existent (HKIC, 2000).

In Hong Kong, SMEs have increased their role as job providers in dominating the contribution to the economy. Employment grew for several decades until the aforementioned severe economic crisis of 1997, and from 1998 onwards, the unemployment rate increased from less than 1% in 1997 up to 8.5% in the middle of 2003. Simultaneously, the contribution that was made to employment by large enterprises with more than 100 employees has decreased. Before 1997 large enterprises accounted for nearly half of the employment rate, and since 1997 this has decreased to less than 40% (HKLD, 2001). Apart from the effects of the economic

crisis and the growth in importance of the contribution made by the SMEs, this decrease may, at least partially, have resulted from large areas of core competence and increasing outsourcing from large enterprises, which in turn increased the use of sub-contraction to small business enterprises. Against this background, particularly because of the economic difficulty, a major problem is how SMEs survive under these economic fluctuations and how many of the surviving firms have grown in recent years since 1997.

Based on the results of the General Household Survey, the total number of employed people in Hong Kong in 2001 was 3.26 million, this being 11% of the total population, with approximately 360,000 people engaged in the transport and logistics industry (HKLD, 2001).

1.5. SMES IN HONG KONG

Small firms are a major source of new job creation (Birch, 1979). It is expected that those advanced countries having a high proportion of employment in small firms would be expected to have faster rates of economic growth, lower levels of unemployment and lower rates of job shedding than economies dominated by large firms. As intimated in the introduction, Hong Kong is in some sense a place of small business. Certainly government and large corporations are very important elements of the Hong Kong economy, but small business is the focus of the bulk of private sector enterprises and accounts for a certain large proportion of the private sector employment. SME is an important driving force in Hong Kong's economic development. There were some 300,000 SMEs in 2000, and they constituted over 98% of business establishments and accounted for about 60% of private sector employees (HKIC, 2000). The Hong Kong government has attached great importance to supporting SMEs at various stages of development in the past year. It advises on issues affecting the development of SMEs and suggests measures to support and facilitate their development and growth. Advisory groups include renowned industrialists and businessmen, SME practitioners, bankers, academics, representatives of SME service providers and government officials.

The government suggested a proposal with more than 30 recommendations on means to assist SMEs' future development, including setting up four funding schemes in 2001 (HKTID, 2001). It secured loans for acquiring business installations and equipment, enhancing human resources, expanding markets, and advancing competitiveness. The government also provided SMEs with a comprehensive range of free information and advisory services by setting up a consultation centre. An education program was also developed to provide learning opportunities for business starters or practitioners. This was guided by the experience and expertise of experienced entrepreneurs, business executives and professionals.

At the macro level perspective, Hong Kong has the advantages of a favourable, consistent and business friendly environment, and having sufficient market forces to supply to all commercial and industrial sectors. In the areas of human resources development, which is of particular importance to SMEs, there are various kinds of support such as the provision of different kinds of technical and vocational training, re-training, or skills-upgrading programs to enhance practitioners' know-how and capability in running business.

By keeping up with technological developments related to SME businesses, trade and industry associations, tertiary education institutions, professional bodies, and research institutes provide different kinds of beneficial contributions to the industrial and technological development in Hong Kong. With the government support, owner-managers of SMEs are encouraged to develop technological innovation and application of new technologies, and the government, at the same time, provides purpose-designed accommodation and support services to start-up technology-based SMEs.

To foster a climate conducive to the development of SMEs, easy information access is critical as the success or failure of a product or a service hinges on the collection, processing and utilization of market information. Many industry and trade organizations in Hong Kong are engaged in helping SMEs and other enterprises to access, process and manage information (HKIC, 2003). The globalization of economic activities, intense competition in the market place and rapid technological changes give rise to new challenges and opportunities to for SMEs.

1.6. AN OVERVIEW OF THE LOGISTICS INDUSTRY IN HONG KONG

Hong Kong, with its strategic location at the heart of Asia and the entrance to the Pearl River Delta (PRD) area in southern China, has been the region's gateway port for more than one-and-a-half centuries as well as the link between the East and West trading corridors. Supported with an excellent, hard-to-beat location and being the gateway of southern China, Hong Kong's comparative advantage in providing logistics services is recognized worldwide as being superior beyond dispute. With a deep and sheltered harbour, its strategic location, and the importance of its entrepot trade, Hong Kong has developed from a tranquil fishing village into the world's busiest container port and international logistics centre. Simultaneously, with the set up of one of the world's most advanced airports in 1997 (HKIC, 2000), the air freight business is being well facilitated and equipped. Hong Kong has become an Asian Hub of logistics service in the world market, and acts as the backbone of the Hong Kong economy.

In a situation that is almost classic *laissez-faire*, there is a high degree of dynamism and intensive activity generated mainly by a large reservoir of entrepreneurs and a social and physical infrastructure that favours free trade. These highly efficient and flexible operations of SMEs make Hong Kong the largest world trading port, thus increase the importance of logistics services. With the fast progress in social and economic development in Hong Kong and trade and industrial activities getting ever busier, the logistics sector, comprising establishments engaged in ocean and air transport, land transport, inland waterway, third-party logistics services providers, cargo forwarding, packaging, and other related services such as cargo measuring and logistics consulting services, expanded rapidly from 1991 to 2000 (HKTID, 2000). The industry is not confined to physical delivery and consulting services, but also provides technological advancement in supply chain management to improve value-added services to all business sectors.

The importance of logistics and transportation are reflected by the current size and value of the industry. According to the major findings of the 1999 Annual Survey of

Transport and Related Services released in 2001 by the Census and Statistics Department of Hong Kong, total receipts (including business receipts and other income) of the transportation sector amounted to 260 billion dollars in 1999, representing an increase of 7% compared with 1998. The gross surplus of the transportation sector, which equals the total receipts less operating expenses and compensation of employees, amounted to 36 billion dollars in 1999, or 13.8% of the total receipts. This proportion was 0.2 of a percentage point lower than in 1998. The value added of the transport sector, as a measure of its contribution to Hong Kong's GDP, amounted to 80 billion dollars in 1999. This represented an increase of 9% compared with 1998 (HKCSD, 2002). Based on the results of the General Household Survey, the size of total employment in Hong Kong in 2001 was 3.26 million, accounting for 10.6% of the total population, with approximately 345,000 people engaged in the transport & logistics industry (HKLD, 2001).

Overall speaking, the unique and most significant aspect of the logistics industry, however, is that it is not an independent industry, and is in fact a part of many other industries. Without it, those other industries may not be able to compete and survive. It actually acts as an 'infrastructure' in supporting most, or nearly all, other industries, such as manufacturing, industrial, wholesale and retail, and various kinds of service industries. During 1991-2000, the number of establishments of small and large firms in the logistics sector decreased by 1.2% per annum while the number of persons engaged experienced a slight growth of 1.4% per annum. The gross business receipts of the transport sector also showed a notable growth of 9% per annum over the period and the net output of the sector, as measured by value added, was 8.8% (HKIC, 2000). These figures indicate that there has been a significant growth in the logistics business, but there has been a slight decrease in the number of logistics firms. This reflects that there is a certain number of logistics SMEs to have closed in the last ten years, which is mainly due to the severe competition in the industry. Moreover, small firms are hardly able to survive since those international logistics corporations have dominated the market particularly during the period of the economic downturn after the Asian economic crisis.

After the Asian economic crisis, in order to save the Hong Kong economy from its hardship, the government delicated a great deal of support to promoting and

developing the logistics industry, particularly to the development of logistics infrastructures and investment in advanced mechanical technology and information technology (HKCSD, 2001). The spill-over benefits to other sectors are dispersed and cannot be captured by logistics operators in Hong Kong. Independently operating small private logistics firms tend to under-invest in the industry without government support of one form or another. Hong Kong's ability to compete on a number of fronts would be seriously hurt if the business logistics sector were to under-invest in logistics infrastructure and technology, since other countries are actively supporting the development of their logistics businesses. Education and training programs are encouraged by the government to enhance the capability of people working within the logistics area. As a whole, the Hong Kong government policy on logistics aims to transform Hong Kong into a state-of-the-art logistics hub in the Asian region by providing investment in logistics infrastructures and development of the installation of logistics technology, as well as establishment of education and training programs.

1.6.1. AN INSIGHT INTO LOGISTICS SERVICES IN HONG KONG

Traditionally logistics management has been thought of as an independent service providing transportation, warehousing, freight forwarding or inventory management service to separate customers. That is, logistics is the collection of activities associated with the purchasing, storage, and physical delivery of supply chain commodities. Supply chain management is therefore a more encompassing concept than mere logistics management. However, there have been remarkable changes and technological transformations in global logistics management in recent years. Hong Kong's logistics industry is no longer confined to independent services of transportation, storage, or freight forwarding activities. In contrast, each function is comprised of all the integral parts of total logistics management, including supplier management, logistics collaboration and partnership, logistics alliance, third-party logistics (3PL), fourth-party logistics (4PL), and outsourcing activities associated with the contemporary concept of total logistics solutions, just-in-time theory, and customer quick response strategy. With the increasing reliability of logistics technology, the Hong Kong logistics industry not only entails the physical movement

of cargoes, but also encompasses advanced technology such as terminal automation, warehouse automation, automatic material storage and retrieval systems, automatic transportation systems, and information technology such as electronic data interchange, real-time track and trace systems, order automation, bar coding scanning systems and radio frequency systems.

The logistics industry in Hong Kong consists of land, air and ocean transportation, forwarding services, terminal cargo handling services, warehousing services, procurement, packaging services, and consultation services. The air and ocean transportation services dominate the key players in the industry, and perform the major functions in transforming Hong Kong into a logistics centre in the Asian region (HKCSD, 2002).

1.6.2. THE IMPORTANCE OF THE INVESTIGATION OF THE LOGISTICS INDUSTRY

Hong Kong, acting as a logistics hub in Asia, has an immense potential to serve the manufacturing sector in China, particularly in Southern China, considering the volume and growth of the outward-processing trade and considering its unique geographical location. It has an ideal position to serve as the southern gateway for transportation of parts and materials between manufacturers in Southern China and suppliers/customers all over the world. The PRD has developed into a major manufacturing and export area because of heavy investment and factory relocation from Hong Kong and the investment from foreign countries, particularly after China's having entering into the WTO. The continuous development of the region will benefit the freight transportation industry in Hong Kong as Hong Kong has the unique position of logistics hub located in southern China (HKTID, 2001).

Although Hong Kong has this unique position as a logistics and transportation hub in the region, it is now facing increasing competition from nearby ports such as Yantian and Shekou, in southern China, Taiwan and Singapore. For example, Singapore enjoys a similar location advantage and modern logistics infrastructure, and acts as an active competitor with Hong Kong for logistics business in the Asian region. Compared with Singapore, the high labour and operating costs and the relatively

lower technology of the industry in Hong Kong are threatening Hong Kong's business volume. Another example is Taiwan which having started a direct link with China, is threatening Hong Kong's role as the transshipment port for cargo transportation.

The smooth cargo traffic between Hong Kong and PRD is a vital focus for the development of the Hong Kong/China logistics services. A more efficient cross-border control mechanism and state-of-the-art inland waterway facilities must be put in place to streamline the flow of goods and services between China and Hong Kong. However, escalating cargo-handling cost in Hong Kong has reduced Hong Kong's logistics growth potential. Yantin and Shekou may have a greater opportunity to take over Hong Kong's leading position in logistics in the near future because they have the benefits of comparatively low-cost port facilities. Recently Southern China has been catching up quickly in the race to improve its ports, transportation and communication infrastructure. Small logistics firms in Hong Kong, suffering from high cost burdens, have reduced their potential growth in competing with Chinese competitors. Moreover, the technology deficiency of the logistics facility in Hong Kong, particularly in small logistics firms, puts the long-term growth of Hong Kong's logistics industry at risk.

Since the Asian economic crisis in 1998 happened, many shipping firms, container terminal operators, forwarding agents, 3PL, warehouses and trucking companies have used many flexible ways and measures to cope with the competitive situation. Some have cut down unprofitable operations; some have demanded employees to be more productive and value-added, and a number of companies have deployed their staff to work in China, but fewer have made investments in their business development. Particularly for those small logistics firms suffering from insufficient capital, their investments of business developments have been minimized (HKTID, 2000). This may challenge the Hong Kong logistics industry, which goes beyond building up the infrastructure of logistics. If challenged by Asian competitors, particularly the Yantian port, Hong Kong will lose its advantageous strategic position in the world.

Hong Kong currently retains its advantage in developing the logistics industry by relying on its already built-up infrastructure, state-of-the-art airports and seaport facilities, and its strategic location in the Asian Pacific region, particularly its proximity to southern China. Government assistance appears to be essential to the development of a high-tech and leading-edge distribution hub. Competing ports in the Southern China areas, such as Macau, Guangzhou, Shenzhen, and Zhuhai, do not have the deep harbour and the logistics supportive system that Hong Kong can offer. Besides, cargo transferring directly to and from China often faces numerous problems with delays, damage or delivery errors, as cargo is often handled by inefficient and bureaucratic Chinese intermediaries (Yam and Tang, 1996). Hong Kong's potential to develop its world-class logistics industry can be enhanced therefore by its advantages and its potential for development of the industry.

The challenges facing the logistics industry in Hong Kong go beyond building the infrastructure. It has to be complemented by excellent market-oriented and technology-oriented management. Only then, if Hong Kong keeps on retaining its competitive advantages by providing continuous support to the industry, will it serve as a strategic logistics site in the world. Therefore, there will be an immense growth potential for Hong Kong if its entire logistics industry is to be rationalized. The SMEs, particularly in the logistics industry, impact significantly on the development of Hong Kong's economy, as it is one of the crucial industries in Hong Kong. It has been evident that its contribution to the economic growth cannot be replaced. To support the "Logistics Hong Kong" initiative, therefore, deliberation over logistics development issues should be undertaken, in order to obtain some insight about how they prosper.

1.7. JUSTIFICATION OF THE RESEARCH AND ITS SIGNIFICANCE

The SME is an important driving force in Hong Kong's economic development. There were more than 300,000 SMEs in 2000. These constitute over 98% of business establishments and employ over 1,400,000 workers, accounting for about 60% of the total employment (Hong Kong Information Centre, 2000). Their vitality and business performances are of crucial importance to the development of the economy.

Therefore, SMEs have contributed significantly to the economic growth of Hong Kong, and insight into how they prosper is worthy of investigation. The small business sector is a vital contributor to the overall performance of the Hong Kong SAR economy.

Empirical research conducted in the U.S., the U.K., European countries, and Australian economies has shown that entrepreneurial behaviour, firm structure, and business strategy are related to business growth. Not much investigation of this kind has, as yet, been conducted in Hong Kong. Even amongst those few studies that have been conducted, most have focused on manufacturing firms or other sectors, thus providing little information about the effects of differences in the logistics sector with regard to these factors. This undertaking attempted to contribute to the existing literature in studying the determinants on business performance (Hankinson et al., 1997; Curran and Burroughs, 1988). The research herein was conducted to both confirm that small firms demonstrate the greatest growth rates and to explore the effects of the logistics sector on this theory. It has attempted to use some appropriate Hong Kong data to replicate previous research studying variables that underlie growth across the industry.

It has been established that most SMEs discontinue within a few years of their start up. Of those businesses that continue, there is considerable variability in the rate of survival. Therefore, it is important to identify the factors underlying failures and discontinuations as well as the factors contributing to the success or growth of SMEs. Moreover, these causes of failure and factors contributing to success may vary from country to country and area to area, depending on economic, geographical, and cultural differences. As such, empirical investigation into these aspects is needed because the findings of such research are potentially useful to economic development planners as well as to individual entrepreneurs in the country concerned.

The significance of the direct contributions made to employment levels by rapidly growing small firms can be demonstrated easily. SMEs have been the primary source of employment creation worldwide over the last decade (Mulhern 1995). It has, for example, been frequently asserted that, 'out of every 100 small firms, the faster growing four firms will create half the jobs in the group over a decade (Storey et al.,

1987). Given the significance of employment created in rapidly growing small firms, it is worthwhile to investigate, theoretically and empirically, the characteristics of SME growth.

The research to be reported in this paper was related to an empirical study of business survival and growth. This study was based on an examination of a sample of SMEs operating in Hong Kong. Because the study was exploratory, it did not attempt to identify any a priori entrepreneurial and managerial abilities or other specific characteristics associated with the successful operation of firms. An in-depth study of management practices of SMEs in Hong Kong may unveil characteristics of their determinants of SME growth.

In a global economic environment, SMEs face increasing competition from international-scale enterprises both at home and abroad. This study may provide helpful frames of reference by means of which SME owner-managers will be able to examine and strengthen their competitive position as they enter into the hyper-competition of the new century, particularly in the logistics industries. The study's findings will hopefully help to focus the attention of researchers, business practitioners, and policy makers on the needs and challenges in achieving investment success. This study is meaningful to both small business owner-managers and government. Evidence will be provided concerning the key determinants of business growth. Information is useable in designing more appropriate strategies by the business practitioners and government, thereby meeting the need of the small businesses.

This study utilised a quantitative paradigm in order to gain a deeper understanding of the numerous and extremely complex research issues and influences at the entrepreneurship interface and to provide some deep insights into the logistics industries.

1.8. RESEARCH METHODOLOGY

This empirical study investigated the characteristics of growth occurring over the past six years in a cohort of SMEs operated by owner-managers who have experienced various spells of unemployment during a period of economic recession after 1997. It entailed primary data gathering in Hong Kong's logistics industry. The research accommodates substantial in-depth questionnaires administered to the small-firm entrepreneurs, applying an adapted methodology to manage the quantitative data amassed. The methodology of this study focused on hypotheses testing, through application of research modelling techniques.

In essence, the research was conducted in explanatory sense; quantitative data were collected to determine the relationships among the independent variables that affect the dependent variable, SME growth. To test the hypotheses properly, a detailed survey of established small firms was undertaken. This provided data on the range of variables required to construct a comprehensive univariate/multivariate model of SME growth. As Storey (1994) argued, the model that was constructed was the most appropriate process to investigate SME growth. Univariate analysis was used to compare mean independent variables (determinants) on SME growth to describe and understand the sample. Multivariate regression analysis was used to test the significance of the impact of each influence on growth, independently of other influences.

Participants were recruited from entrepreneurship and small businesses in Hong Kong. They were asked to volunteer for a study that would involve them in discussing specific ways in which they developed their businesses. To qualify for the study, owner-managers had to have their own businesses or to have been practitioners for at least three years. Their businesses had to be genuinely independent, not divisions, subsidiaries, or franchises of big corporations. The owner-managers had to have active involvement in their companies' management. The respondents were assured that their responses would be held confidential by the research team. In order to encourage a high response rate, written summaries of the

findings were given to the participants as an incentive, but only general findings of which the source could not be identified were used in the feedback.

Data were collected as part of a larger study of investigation in SMEs. The criterion used for selecting the sample firms was that they belonged to the category of SMEs, as defined by the Hong Kong SME Committee.

1.9. OUTLINE OF THE THESIS

The thesis attempts to describe the possible determinants that affect SME growth in the logistics industry in Hong Kong. These determinants reflect, in many senses, the diversity of entrepreneurial traits, firms' characteristics and strategies. It cannot be exclusively quantitative since this could lead to a loss of the richness which only description can provide. On the other hand, it is not entirely descriptive, but rather attempts to derive general patterns and themes which are of interest, in particular to those in the logistics sector, and which may contribute to the creation of wealth for the industry. It attempts to combine theory and the practice with the accent rather less upon analytical rigor and rather more on obtaining a broad view on trends and policies. Suggestions will be made regarding an appropriate mix of incentives and controls (if any) in the industry, to enable a desired firm growth and employment generation.

The thesis is organized into six Chapters, which are subdivided into different sections.

This Chapter – Introduction

This Chapter deals with an overall introduction and a description of the role of small firms in the economies of Hong Kong. It provides an overview of the entire research study in terms of content and methodology and discusses the importance of the study and its significance to business. The ensuing Chapters cover the literature review, the argument in support of the chosen paradigm and the research approach used, including details of the fieldwork findings, discussion of the findings and the

emergent model and recommendations for future areas of research. It also covers an overview of the Hong Kong economy and an insight into the logistics industry in Hong Kong.

Chapter 2 – Literature Review

This Chapter reviews the empirical literature related to the study, and outlines the conceptual background to the research based on a wide range of past studies. A proposed model is discussed, and the hypothesis testing is reported here. A review of the topic attempts to bring together the broad range of determinants of SME growth considered relevant to the research question as well as to build on and extend existing knowledge.

Chapter 3 – Methods

This Chapter presents the methods used for the data collection and model estimation for the owner-manager survey and detailed profiles of the small business data in the logistics industry in which the survey work took place. It attempts to explain the criteria of participants who were recruited to participate in the research, the survey instruments and questionnaire design, the methods of sampling and data collection, and the ways facilities and resources were used. Throughout the thesis, the term “paradigm” will be used to refer to the positivist/empirical/quantitative approach.

Chapter 4 – Findings & Analysis

Chapter 4 reviews the problems and outcomes which entrepreneurs faced in developing their business and the impact of such businesses upon the local economy. In discussing the characteristics of those starting their own firms, an attempt is made to distinguish between the growth of successful and unsuccessful firms.

Chapter 5 – Discussion and Implication

Chapter 5 focuses on discussing the results of the data analysis; the results of a multivariate regression analysis and a series of models are presented in an attempt to

identify the affection of small business growth. Details of the research results will be addressed.

Chapter 6 – Conclusion & Recommendation

This final Chapter attempts to make a comparison of the current data with the previous research results, and concludes with their implications for small business policy. The contributions and limitations of the study are considered, and some directions are also provided for future research. It also reviews the lessons of the above chapters relating to both internal and external factors – these lessons can provide government and practitioners in the industry with information for practical use, and can make a useful contribution to our understanding of small firms as a source of wealth and employment in future.

CHAPTER 2: LITERATURE REVIEW

This chapter presents the literature review and the conceptual framework. First, it introduces the important issues and frameworks arising from the literature in the areas of entrepreneurial characteristics, the natures of firms, business strategies and external factors. Second, it reviews the foundation literature on the constructs relevant to the proposed model and the hypotheses to be tested in the study, and other immediate literature of relevance to the research topics

2.1. INTRODUCTION

The review provided in this section is confined to some of the empirical studies reported in the literature. There have been many relevant economic studies (Evans, 1987; Storey, 1994; Reid, 1993) and other different studies (Glancey, 1998; Smith, 1967; Stanworth and Curran, 1976; Keeble et al., 1992) on entrepreneurship suggesting a number of hypotheses regarding the relationship between different variables and firm growth in SMEs. Comprehensive studies have recognized explicitly that the determinants of enterprise growth are widely evident.

SMEs exert a strong influence on the economies of all countries, particularly in the fast changing and increasingly competitive global market (Aharoni, 1994; Drilhon and Estime, 1993). The SME has been a major engine of economic growth and technological progress (Mulhern, 1995; Thornburg, 1993). For example, Carrier (1994) concluded that SMEs are often more fertile than larger firms in terms of innovation. The features of SMEs such as flexibility, innovativeness, and problem-solving action orientation have come to be considered as vital for success since the

1990s. Even large companies have attempted to implement entrepreneurship and have learnt to think like small businesses (Chittipeddi and Walleth, 1991).

To date, there is no unified theoretical model on firm growth. Some firm growth is motivated by external opportunities, and some firms are encouraged by internal inducements. Adversely, both internal and external factors may also function as obstacles to growth. As far as external success determinants are concerned, economic environment and government intervention are the major factors in affecting firm growth. Internal success determinants include the characteristics of the resources, the features of the firm itself as well as the firm's business strategies. Generally speaking, internal factors determine the success of the firm in the market structure whereas the external factors of economic difficulty and government support account for the additional determinants in affecting the firm's growth potential.

In this section, a comprehensive review of the literature extant relating to small business growth and success is provided. Given the vast amount of literature in these areas, the highlights of some important issues relating to the research topic are considered. This is followed by a detailed consideration of the literature which provides the background and rationale for the study.

2.2. ENTREPRENEURSHIP

2.2.1. ENTREPRENEURIAL DEFINITIONS

In the neoclassical paradigm, entrepreneurship has played the central role in economic analysis (Kirzner, 1985). In the past literature there have been continuous attempts to conceptualize the phenomenon of entrepreneurship and to identify the characteristics of an entrepreneur.

Churchill and Lewis (1983) commented that entrepreneurship is one of the youngest paradigms in the management sciences. They asserted that, as with all young paradigms, it has emerged by using the methods and theories of other sciences such as business, economics, psychology, sociology and, to a lesser degree of politics.

This dimension to the paradigm means that researchers have endowed this discipline with a diversity of characteristics. Entrepreneurship, a complex phenomenon, exhibits a rich history of theoretical contributions, but a lack of unified theories. This research operates a multidimensional framework for exploring the complexities of entrepreneurship based on the integration of diverse disciplinary perspectives.

Entrepreneurship is about change from time to time and the roles people play to bring it about (Hill, 2001). Entrepreneurship is characterised as arbitrage, speculation, risk taking, innovation, planning and profit opportunities (Cheah, 1992). McClelland (1961) identified the entrepreneur who created venture. Yu (1999) focused on the individuals who were imitative and adaptive. Gartner (1985) reviewed past literature claiming that psychological variables that are assumed to differentiate entrepreneurs from non-entrepreneurs frequently do not bear up under close scrutiny. Lumkin and Dess (1996) suggested that the orientation of entrepreneurship was the new entry of a new or an established market with new or improving products/services, as well as the launching of new ventures. They concluded that, in addition to innovation, risk taking and new venture penetration, an entrepreneur also connoted autonomy and competitive aggressiveness.

Despite the differences in articles focusing on various aspects of the identification of entrepreneurship, no consensus about the definitions has been reached. An entrepreneur can also be defined as a risk taking and innovative individual who establishes and manages a business for the purposes of profit and growth, and an entrepreneurial small business is likewise an innovative firm created for profitability and growth (Olson, 1987).

Hyrsky (1999) discussed that entrepreneurs should have the following characteristics: work commitment and energy, economic values and results, innovativeness and risk-taking, ambition and achievement, and egotistic features. Entrepreneurship seems to be a function of a multitude of variables including individual, situational, organizational and socio-cultural ones. It involves the definition, creation, and distribution of value and benefit to individuals, groups, organizations, and society. It is a human act that involves finding personal energy by initiating and building an enterprise or an organization. It also involves building a

team of people with complementary skills and talents to pursue opportunities (Timmons, 1994).

Entrepreneurship can be defined as the process of ‘creating value by devoting the necessary time and effort, assuming the accompanying financial, psychological, and social risks, and receiving the resulting rewards of monetary and personal satisfaction’ (Hisrich and Peters, 1992). Carland et al. (1984) added that entrepreneurship could be defined in terms of innovative behaviour allied to a strategic orientation in pursuit of profitability and growth. Storey (1994) noted that there was no single, uniformly acceptable definition of a small firm. He gave an explanation for entrepreneurship as being likely to have much higher levels of capitalisation, sales and possibly employment, and related to objective measures of size, such as number of employees, sales turnover, profitability, and net worth, etc. There have been a number of empirically-based efforts to describe the attributes of entrepreneurship in terms of personal traits, attitudes, and management behaviours.

2.2.2. ENTREPRENEURIAL CHARACTERISTICS

Much of the literature has been concerned with entrepreneurial characteristics and the social construction of an individual are widely discussed. Georgelli et al. (2000) described ‘being entrepreneurial’ as being willing to take risks and being innovative, articulated with an ambition to grow. Covin and Slevin (1988) defined an entrepreneurial style in terms of the extent to which ‘top managers are inclined to take business-related risks, favour change and innovation, and compete aggressive with other firms’. Generally speaking, entrepreneurship is characterized as being risk-taking, motivational, achievement-oriented, innovative, proactive, aggressive, and strategic and profit oriented.

According to Hebert and Link’s study (sources from Mahmood, 1992, p.20), an entrepreneur is a person:

1. who assumes the risk associated with uncertainty;
2. who supplies financial capital;

3. who is an innovator;
4. who is a decision maker;
5. who is an industrial leader;
6. who is a manager or superintendent;
7. who is an organizer and co-ordinator of economic resources;
8. who is the owner of an enterprise;
9. who is an employer of factors of production;
10. who is a contractor;
11. who is an arbitrator;
12. who is an allocator of resources amongst alternative uses.

Wickham (1998) argued that entrepreneurship was largely about the ways of management. He proposed that:

1. entrepreneurship is a style of management;
2. entrepreneurial management is about pursuing opportunity and driving change;
3. entrepreneurial management is strategic management;
4. entrepreneurship is an approach which can be learnt.

Frequently researchers have investigated individual differences and their potential relationship with attitudes and firm behaviour. Both demographic and individual difference factors continue to receive attention in entrepreneurship research (Robinson and Sexton, 1994). A variety of individual difference variables such as owner-manager's characteristics, experience, motivation and unemployment push has been examined. It is also predicted that the demographic factors of age, gender, and education background will have a significant impact on small firm growth.

2.2.3. ENTREPRENEUR AND SMALL BUSINESS OWNER

Hodgetts and Kuratko (1995) suggested that the terms "small business owner" and "entrepreneur" were sometimes used interchangeably. While there were situations that encompassed both, they noted the importance of recognizing differences in the

titles. In economics, or at least to some economists, an entrepreneur may be both the owner and the manager of a firm; he may provide the capital, organize production and bear at least part of the risk of being unable to sell the output at a price which he feels rewards him with adequate profit (Storey, 1982). However, in large firms the owners of the firm (the shareholders) have little influence upon managerial decision making, although in new and small firm ownership and control are often combined in a single, or a group of individuals.

In this research, the term “entrepreneurship” used here covers the establishment of a firm by an individual or group. ‘Entrepreneur’ is a person in charge of making key decisions or at least somebody or owner-manager who takes an active part in the organization management. This research attempts to exhibit those entrepreneurial characteristics that impact on the activities and managerial style of the small firms in the study.

The term “owner-manager” is used deliberately in this context in preference to “entrepreneur” because of the difficulty of defining the latter with any degree of precision (Moran, 1998). As there is a wide range of definitions used by previous researchers, it is preferable to define the term as referring to typologies of owner-manager who are more or less engaged in an entrepreneurial style (Chell et al., 1991). Accordingly, the definition of owner-manager herein is defined as someone who owns and runs an independent (and therefore usually small) business enterprise. It may be that a subset of this population can subsequently be labelled on the basis of a particular set of characteristics or criteria, as entrepreneurs or entrepreneurial (Moran, 1998).

2.3. THE SMALL FIRM

2.3.1. DEFINITIONS OF SMES

Storey (1994) suggested that there was no single, uniformly acceptable definition of a small firm. When examined at sectoral level, it means that in some sectors all firms may be regarded as small, while in other sectors there are possibly no firms which

are small. The definition of the role of small firms in an economy is problematic, and there are more than 30 different definitions to define a small business (Beesley, 1984; Storey, 1987). For example, a small firm in the manufacturing industry is likely to be substantially larger than a small firm in logistics, and so definitions vary between sectors. Some definitions are based upon the number of employees, some are based upon the number of productive units, and even some are based upon the amount of assets, revenue or turnover. For some countries, a small trucking transport firm is defined according to the number of trucks in its fleet, whilst a small forwarding company is defined according to its revenue or the number of the employees.

All these measures are unsatisfactory and it is not easy to synchronize into a consistent level of measurement. First, it is not possible to compare small trucking firms, in which measurement is in terms of numbers of trucks, with small forwarding company, in which measurement is in terms of employees. Second, even the measurement scale is not the same: definitions based on the number of employees are varied from place to place, or from country to country. For example, in the United Kingdom the Business Statistics Office defines a small firm in the manufacturing sector as having less than 200 employees, whereas in the non-manufacturing sector as having less than 20. For Germany, the statistical data are on an establishment basis, rather than upon a single ownership basis, making comparison even more complicated. In the United States, a small firm is defined as having 100 employees in manufacturing but output definitions are used for other sectors (sources from Storey, 1994). In Australia, the small firm is defined as having less than 100 employees in manufacturing and less than 20 employees in all other sectors (Australian Bureau Statistics, 1996). These variations in definition make it extremely difficult to undertake valid comparisons of the importance of small firms in various countries.

As this study is conducted in Hong Kong, the definition of Hong Kong small business should be included. According to the Small and Medium-sized Enterprises Council in Hong Kong (HKIC, 2002), a small firm in the manufacturing sector is defined as fewer than 100 employees, and a small firm in the non-manufacturing sector is fewer than 50. This definition is also based upon the measurement of the number of employees which is similar to those definitions defined by most of

Western countries. However, in any event analysis, the variations in definitions of firm sizes account for the substantial problem of explaining the real growth in SMEs satisfactorily.

Although it is difficult to obtain a consistently satisfactory operational definition of SME, we try to synthesize the acceptability of an agreed definition. The most widely accepted definition is based on the ideas of the Bolton Committee in the United Kingdom (1971) providing an important conceptual framework. They identified three important characteristics that were likely to have a strong effect on management and decision making within a small firm. The Bolton Committee (1971) formulated the SME definition that small firms have to meet the following criteria:

1. Small firms are owned and managed by the same individuals, rather than by professionals on behalf of shareholders;
2. Small firms normally have a small share of the marketplace, or a larger share of a very small market;
3. Small firms are legally independent, in the sense of not being owned by another business, or not forming part of a larger enterprise.

Whilst the Bolton's definition has highlighted the distinctive conceptual dimensions of small businesses, problems of obtaining an operationally satisfactory definition still exist. The collection of data on small firms varies substantially between countries; difficulties in defining small businesses multiply when international comparisons are undertaken.

In summary, it is clear that there exists no standard uniformly satisfactory definition of a small firm or SME. It is also understood that the Bolton Commission's SME definitions are no longer particularly appropriate and have been constantly affected by the different variations. Nevertheless, the use of the number of employees as a basis for definition has been used as an easier and reasonable way of enabling direct comparisons to be made. The effect of these problems means that those international comparisons which are made tend to concentrate upon the role of small firms such as in the manufacturing sector, where size of firm is defined in terms of employment, rather than according to any other criteria.

2.3.2. THE ROLE OF THE SMALL FIRM

Carson et al. (1995) suggested that small firm operation meant that ventures have little impact on their surroundings and have limited power to modify environmental forces to their advantage. There is no impact on the overall market for their products and services. Small firms are regarded as the weaker partner in marketing channel relationships and their wider influence in the marketplace is generally quite restricted. However, Glancey (1998) recognized the importance of small firms in supporting the process of local economic development. In a macro perspective of this sector, he summarized the importance of small firms, particularly in the service sector, to economic development in the following ways:

1. The creation of wealth and high quality employment in a high growth area of economic activity;
2. Their 'survivability' in periods of recession;
3. The beneficial impact of their services on the performance of their clients (which are typically other small and medium sized firms) which can lead to significant local income and employment multiplier effects;
4. Their contribution to the development of the knowledge bases of local economies, which can lead to sustained local economic development.

Mahmood (1992) summarized the roles of small firms as follows:

1. Creation of new jobs;
2. Encouragement of innovation, new products and services;
3. Development and introduction of innovation and creation requiring flexibility by owner-manager, and an ability to react and to change quickly;
4. A high degree of promotion of competition and market dynamism;
5. Provision of complementary services;
6. Enhancement of social balance and individual freedom;
7. An excellent record of industrial peace and harmony.

Moreover, Storey (1982) provided a wider discussion about the role of small firms, which they thought to perform a set of common functions:

1. Small firms provide a source of competition (potential or actual) to larger firms in their industry, limiting the latter's ability to raise prices and/or be technically inefficient in the use of factors of production;
2. Small firms have become increasingly acclaimed as major creators of new jobs in developed countries since standardized products, which have traditionally been produced in large enterprises, are now increasingly produced by the developing countries;
3. Small firms provide the seed corn from which the giant corporations of future years will grow;
4. In the developing countries small firms can co-exist with large foreign-owned enterprises and, by using an appropriate local technology, make a valuable contribution to growth;
5. Small firms can provide a harmonious working environment where owner and employee work, shoulder to shoulder, for their mutual benefit. This is likely to be reflected in fewer industrial disputes and lower absenteeism;
6. The inner city areas of the industrialized nations contain heavy concentrations of the social problems of unemployment, low incomes and poor housing. It is argued that small firms can make an important contribution to the regeneration of such areas;
7. Small firms are likely to be innovative, being found in industries where technical development is essential for survival. The low capital requirements in modern micro-electronics make this industry particularly suited, at present, to new small firms.

2.3.3. PREVIOUS RESEARCH IN SMALL BUSINESS GROWTH

Bird's (1989) research found that small firms with successful performance were characterized by innovation and risk-taking behaviour and the owner-managers were basically educated and well trained. Murphy (1986) recognized that a successful owner-manager was to the outcome of dedication, working hard and commitment to

career. Hill and Narayana (1990) disclosed that a successful growth company was characterized as providing high quality products and services, good reputation, efficient customer response, and devotion to job. High employee devotion and spirit, and good management and employee relations are significant indicators in improving business performance. Larson (1987) showed the positive impact of growth potential, quality, innovation, and operating efficiency on successful performance. Cooper's (1989) empirical study compared the difference between small firms and larger firms in terms of entrepreneur background, management process, perceived problems, changes instituted, and financing. Box (1994), alternatively, studied the correlation of employment growth in manufacturing entrepreneurs with predicted variables of entrepreneur characteristics, psychological differences and environmental scanning practices.

It is also noteworthy that Redding (1990) concluded that the owners of small firms based their own strategic decisions on intuition rather than systematic analysis, preferred simple, pre-functional organization structures rather than mechanistic forms, operated by implicit command rather than by means of formal instruction or objective setting, and preferred to use labour via subcontractors rather than through direct recruitment. Such practices, bound up with Confucian values and traditions, normally limit the growth of small firms. Only the concentration of niche industry and/or personal relationships are the dominant factors for the success to grow. Lau (1996) extended the idea that the characteristics of successful companies were flexibility, interpersonal harmony, paternalism, management centralization, opportunism, unclear direction, and centralization on niche market.

Luk (1996) categorized successful factors affecting business performance into three key variables: the personal characteristics, management factors, and product market and company factors. His research finding was that a successful small business is affected by personal factors, which should be characterized by good decision-making skills, hard work, sufficient relevant work, good interpersonal and analytical skills, good education and training, and family support. Management factors are characterized by good financial management skills, good marketing techniques, good quality production materials, and the ability to motivate employees. Marketing strategies such as niche target, cost leadership and product innovation, and company

strategies such as company image, company-customer relationship, and flexibility are the main factors contributing to the success of small business.

Duchesneau and Gartner (1990) identified three categories of factors that were thought to influence the likelihood of SME success, which are more or less similar to Storey's SMEs' growth factors. These three factors are entrepreneurial characteristics, start-up behaviour, and the firm's strategy. Their research disclosed that factors appearing to make greater contributions to successful performance include the following characteristics. The owner-managers should have prior start-up business experience, effort to reduce business risk, the intention to work for long hours, ability to communicate with various parties, excellent customer response and services, clear and broad business ideas, good planning techniques, and flexible, participative, and adaptive organizational structure. Steiner and Solem (1988) also reported a similar outcome in their research, that the crucial factors for success of SMEs should have relevant managerial background and experience, flexibility in operations, availability of labour, and possession of identifiable competitive advantages.

Storey (1994) synthesized most of the explanations, which have been provided by researchers for variations in the growth of small firms over time, space and sector. The distinction is made between the work of industrial economists, focusing on the structure-conduct-performance paradigm (Ace and Audretsch, 1989), and labour market economists who examine the form formation as a decision exercised by the individual in the context of the labour market. In making that decision the individual is influenced by a variety of factors such as work experience, motivation, personality, family environment and societal norms. These latter influences have been the prime focus of explanations of business formation provided by non-economists and it is this approach which will be adopted in the investigation of the determinants of the growth of SMEs.

A mass of research has sought to discover if there are any clear characteristics shared by the owners of SMEs that distinguish them from other members of the economically active population and which characteristics are conducive to SME success (Barkham et al., 1996; Duchesneau and Gartner, 1990; Storey, 1994; Ace

and Audretsch, 1989). The general conclusion appears to be that there is no simple pattern (Storey, 1994). Rather, the evidence points towards a complex set of interrelated factors that increase or decrease the probability that one individual will become the owner of a successful business rather than others, according to the entrepreneurial traits, the external environment, organizational achievement and process skills (Barkham et al., 1996). Ray (1993) stated that the probability of a successful business was not based on a fixed set of attributes but on an infinite variety of combinations in which an individual's positive attributes might outweigh their negative attributes. Gary (1990) also stated that the strong desire of many small business owner-managers to retain personal control and business independence has been well recognized as a key factor limiting the growth of many potential successful SMEs.

Some authors view business success from an entirely different perspective. Tjosvold and Weicker (1993), in their research of cooperative and competitive networking by entrepreneurs, presented an alternative idea that the value of educating entrepreneurs in skills and procedures of cooperative networking contributed highly to the success of a business venture. The outcome suggests that cooperative goals and interaction contribute to the effective use of the network. Osborne (1993), in a study of entrepreneurial success, recommended that entrepreneurs should operate a business which had a hospitable environment; understood how customers assess product/service benefits; avoided markets dominated by one or several large companies with product or price leadership; understood the underlying economics in which the firm operated and was cautious about running a business where capital requirements suppressed or eliminated discretionary cash-flow.

As an insight into the review of the previous research, it is noted that the importance of small firms is in contributing to the local economy in various ways. Firm growth or expansion is one of the indicators of entrepreneurship increasingly becoming increasingly accepted as valid within firms well beyond the founding event. In designing the project, concepts are drawn from a number of theories of small business growth although the approach used is not wedded to any single theoretical framework. As other researchers have noted, there is no single theory which can explain small business growth adequately and little likelihood of such a theory being

developed in the future (Gibb and Davies, 1990; Merz, 1994; Storey, 1994). This is partly because of the heterogeneity that exists in the various types of SME but also because of the range of factors that can affect growth, which may interact with each other in different ways in different circumstances. Thus, while it may be possible to identify key success factors that affect the growth of SMEs, it is unlikely that a comprehensive model with predictive capability will emerge.

As the firm grows, there has to be a shift of attention away from the owner to the factor employed within the firm. Managerial and organizational changes depend on the way in which the firm grows. This is not just a matter of the choice of technology, as evidence accumulates that a given technology can often be used in a variety of ways and, thus, management choice becomes important. The types of growth outlined in the organizational psychology literature (Katz and Kahn, 1966) are:

1. Growth by unit size (adding one or two more staff within an existing administrative unit), which is the most simple and easy way to calculate and record;
2. Growth by parallel units (the multiplication of parallel units, i.e. opening another largely identical branch), which is too small to be tested;
3. Growth by differentiation, which is difficult to measure;
4. Growth by specialization (entailing the redesign and reallocation of work functions);
5. Growth by merger and takeover.

On average, the extent of firm growth increases from the first to the second type of growth outlined above, and can be expected to be most marked in the final three categories (Thompson, 1967). Firm growth measurement tends to be limited to the first two types, particularly the first category; this is the easiest way to measure. Thus, this approach will be used to be the fundamental measure in this study.

There are different aspects of research to deal with the study of success factors on SME growth. In their review of the literature on small business growth, Clark et al.

(2001), Gibb and Davies (1990), Merz et al. (1994) and Storey (1994) have different models for presenting the growth process.

Clark et al. (2001), investigating the clothing industry in Coventry in Britain, suggested that most owners can be assigned to one of three broad categories of growth according to their attitudes to growth:

1. 'Stagnant Satisfiers': This is the largest category, accounting for around 60% of owners. It comprises those who have built their businesses to a level which they regard as suiting their economic and social needs. Their priority is to maintain the status quo rather than to pursue further growth. Most, however, preside over firms which are in decline.
2. 'Thwarted Expanders': This is the second largest, accounting for around 30% of owners. They try to expand their businesses, but are unable to grow them. These businesses are healthy but growth is impeded in many firms because of labour shortages, keen price competition, and lack of funds.
3. 'Capricious Manufacturers': This is the remaining 10% or so of owners falling into a residual category. Those owners move regularly and repeatedly into and out of operation, so as to maximize short-term gain and avoid long-term liability. Firms are opened, expanded, contracted and closed quickly to take advantage of short-term opportunities and circumvent risk, this being relatively easy in an industry in which fixed costs are low, with little regard to health and safety, and employment regulations.

Since their research was conducted in the clothing industry the results may only represent the entrepreneurial attitudes of the clothing manufacturer and may not exactly represent the entrepreneurial attitudes in other industries. For example, Clark et al. (2001) showed that the clothing industry was a rather traditional one, and it might not be accepted widely by young people. The tradition of learning basic sewing skills in the home, from mothers and aunts, is in decline and has disappeared in many households.

By using multi-dimensional approaches linked to the real working situation of the owner-manager, Gibb and Davies (1990) divided entrepreneur characteristics into four main approaches in their study:

1. Personality dominated approach, focusing on the impact of the entrepreneur's personal characteristics;
2. Business management approach, emphasizing the factors affecting the firm's performance in the marketplace, particularly its financial performance;
3. Sectoral and broader market-led approach, emphasizing the influences of external factors rather than individual firm characteristics;
4. Organizational development approach, represented by the 'life-cycle' or 'stages of growth' models

Merz et al. (1994) synthesized the previous literature concerning small firm growth into three main types:

1. The most common type is concerned with cross-sectional studies examining the performance measure of a range of characteristics of entrepreneurs and firms, in relation to firm growth. Basic entrepreneurial factors tested widely in the past studies include gender, age, education background, management skills, and motivation. These studies conducted sophisticated examinations of examples of organization studies, including firm size and age, legal structure and business strategies, with a focus on the linkage between performance and growth. While these studies illuminated the usefulness of certain activities and strategies in relation to growth performance, it has provided an informative guide for studying small firm growth or expansion.
2. The second main studies of small firm growth focused on the organizational life cycle hypothesis concerned with advanced models. The characteristics of firms in various predetermined stages of growth were examined. Studies of this nature were concerned primarily with establishing or validating the life cycle theory on the basis of factors such as management priorities, management problems in technology-based industries, and strategy content and planning processes. These studies, while interesting and thought-

provoking, possess limited usefulness for the study of growth management since they have been built upon the deterministic assumption that all firms grow in a linear way through a predictable series of preordained stages.

3. The third type of small firm growth studies has emerged recently and focuses primarily on the phenomena of growth itself and the management of that growth. It attempts to develop a better understanding of the relationship between the dynamics of firm growth and various aspects of management practice. This approach is usually taken to examine the managerial, structural, or strategy characteristics of a sample of growing firms as they may relate to the firms' environment, profitability, or other correlates of interest.

For instance, high growth technology-based firms possess decentralized task teams made up of specialized individuals operating in highly formalized flat organizational structures. The strategic planning processes used in high growth firms demonstrate that previous rapid growth performance requires small firms to design managerial systems that ameliorate the demands emanating from the firms' environment and strategic orientation. The chief weakness of many studies in this category is that they rarely compare high- or no-growth firms. The end result is that while more is known about high-growth firms it is unclear whether the observations reported are similar or different for low-growth firms. The implication is that since high-growth firms behave in a particular manner, then all firms wishing to grow quickly must behave in a similar way.

Storey (1994) has extended a broad view of key factors comprising three components in this analysis of the growth of small firms:

1. The characteristics of the entrepreneur;
2. The characteristics of the firm, and
3. The business strategies associated with growth.

Details of each of these components will be discussed in the following sections.

After a brief discussion of the profile characteristics of the best performing firms, the focus in this research is underpinned by Storey's (1994) internal model, specifically those key elements which are associated significantly with firm growth. In a comprehensive review of the small firm growth literature, Storey has extended a broad view of the influences on company growth. These three components are not mutually exclusive and may combine in a number of ways to influence growth in small firms. Within each of these three sets of factor, each individual element was well summarised in Storey's model which other researchers have shown through various surveys to have had an impact upon growth. As the studies of Storey's growth model were largely considered those from the U.K. and the U.S.A, particularly in quantitative analysis approach, his model was recognized as a systematic and comprehensive criterion in studying small firm growth. In the discussion that follows Storey's comprehensive summary of the literature was drawn to outline the conceptual framework adopted in this research.

Firm growth is widely influenced by other range of factors. Some are external to the firm and outside the control of the company. Many of the external factors concern the wider economic environment. Other external factor is influenced by government policy and supports. External factors in this study including economic background and government support are used as indicators of change in external conditions and in the circumstances of the firm. In other words, the focus is on how firms are managed for growth. The framework used in this study incorporates a sector dimension on the basis that it is the sector context which influences the role that SMEs play in an economy, which may in turn affect both the opportunities and constraints on their ability to grow.

2.4. THE CHARACTERISTICS OF OWNER-MANAGERS

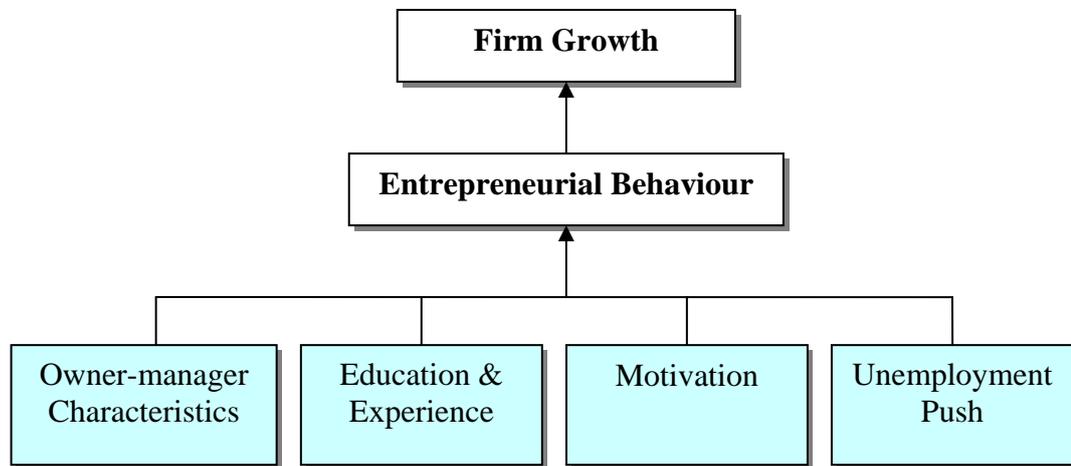
Early research in studying the traits of owner-manager in affecting the firm performance has been examined thoroughly (Chell, 1991; Barkham, 1996; Basu and Goswami, 1999; Storey, 1994). For example, numerous background factors related to individual traits and personality, such as age (Glancey, 1998; Moran, 1998), gender (Orser and Hogarth-Scott, 2002; Kalleberg and Leicht, 1991; Cuba, 1983; Buttner

and Rosen, 1989; Kolvereid et al., 1993), education (Kirby, 1990; Douglass, 1976; Mahmood, 1992), past experience (Storey, 1982; Ronstadt, 1988) and entrepreneurial behaviour (Michalos, 1986; McClelland, 1961; Richie et al., 1982), have been discussed. There have been studies that have investigated how different types of factors may be inter-related with small firm performance. Accordingly, this study seeks to contribute empirically to the existing literature by focusing on the association between a full range of personal factors and small firm growth within a theoretical framework.

The characteristics of owner-managers associated with firm growth presumably relate to their experience. The middle-aged entrepreneur is likely to have better experience than the younger one, better credibility than younger entrepreneurs, better energy than older ones and easier access to resources than both younger and older entrepreneurs, and so is most likely to own a growing business (Storey, 1994). Entrepreneurs with better growing firms can be expected to have more educational background and better levels of management experience. It can also be expected that the acquisition of experience in the sector prior to the establishment of the business, rather than setting up without such experience, would be associated with faster growth. There is also some previous evidence from the past research that firms still run by their founders grow faster and businesses run by more than one individual are more likely to grow than single person-owned firms. Motivation is a factor that should explain why a business is established and to relate to firm growth. Positive motivation may possibly relate to the growth of a business more than negative motivation. Alternatively, the unemployment push can act as a reverse factor, in that those businesses established by unemployed individuals are more likely to grow rapidly than those businesses operated by employed workers.

The entrepreneurial characteristics of greatest relevance to exploration in this research are dynamic and include personal attributes and behaviour, the owner-managers' background and experience, and how they are affected by motivation and unemployment threats (see Figure 2.1). The study also explores to what extent other factors are relevant, including ways in which the companies exhibit entrepreneurial characteristics and, consequently, the ways in which these characteristics impact on the activities and managerial styles of the small firms in the study.

Figure 2.1 The Relationship between Entrepreneurial Behaviour and Firm Growth



2.4.1. AGE OF OWNER-MANAGER

Age has been examined from different perspectives. The growth of business is associated closely with the age of the owner-manger. Younger owner-managers are often more highly motivated than older ones, since they want to test their own abilities. The older owner-managers usually have more realistic views of possibilities and therefore their firms are more likely to reach their expected size than those run by younger ones (Kangasharju, 2000). Flexibility is another factor associated inversely with age. The younger the owner-manager is, the greater the ability and willingness is to make fundamental changes with bigger adaptability (Barkham et al., 1996).

Researchers have discovered that younger owner-managers have the energy and the commitment to work the long hours which are generally necessary for a business to be successful (Heshmati, 2001; Jovanovic, 1982). Variable experiences can come with age, but younger business owners can also benefit from higher levels of energy and stamina. A younger owner-manger with a higher need for achievement, greater commitment, and perceived limitations in physical facilities is more likely to have an

expanding business (Sapienza and Grimm, 1997; Lau, 2001). The older owner-manager is less likely to have the physical energy for such hard work, especially when close to retirement, or may have much more modest objectives or ambitions for the growth of the business.

There is other evidence suggesting that levels of firm growth and age are correlated positively. It is argued that whilst the younger owner-managers may have more energy, they lack credibility, as well as business experience, in the market-place and are more likely to be financially constrained. Firms run by old owner-managers rather than young owner-managers are more likely to survive, since the need for risk-taking is lower due to lower motivation for growth and the possession of higher levels of skills and experience. For these reasons the older owner-manager is more likely to have a growing business. Herzog and Rogers (1986) examined research findings in numerous surveys and concluded that older individuals tended to report somewhat higher levels of satisfaction (firm growth) than did younger individuals. Skill and experience always comes with older people. The older the owner-manager is, the greater the practical problem-solving ability of the individual.

A third argument is in between these two approaches: the middle-aged owner-manager is likely to have all benefits from both the younger and older owner-manager's characteristics such as better experience, more credibility, and at the same time, having enough energy and accessibility to resources (Storey, 1994). So, the middle-aged owner-manager should be in the best situation and is most likely to own a rapidly growing business. In tune with this argument, too young or too old owner-managers are not likely to be associated with firm growth, and are less likely to succeed in relation to business growth.

Alternatively, there are some factors that can be self-contradictory, for instance, motivation to work hard can be associated positively or negatively with age. Some theories argue that younger people have more energetic capabilities to work hard as they can work longer hours (Storey, 1994). As the older owner-manager accumulates wealth, this wealth provides an income and this reduces the need for income generated from work. In other words, the older the owner-manager is, the greater is the incentive to live off earlier investment rather than invest additional time and

resources in the hope of a future pay-off. However, Storey (1994) alternatively argues that the younger owner-manager has less motivation to work hard. Working hard may not represent their whole life; the younger owner-manager prefers to seek for a better lifestyle such as spending more time on entertainment or leisure life. Thus, the younger the owner-manager is, the greater may be the intention to work more flexibly instead of working too hard. Success is traditionally related to working hard; however, this attitude of working style is changing in the working style of the younger entrepreneur.

2.4.2. GENDER OF OWNER-MANAGER

Research on the impact of gender on individual perceptions provides evidence that there are differences between men and women in levels of job satisfaction, commitment, and motivation, with the outcomes of these influencing the firm growth (Spilling and Berg, 2000; Storey, 1994). Despite a growing number of female entrepreneurs, most small business owner-managers have traditionally been male, married and middle-aged in the past years (Ritchie et al., 1982). Case study evidence in Britain suggested that female entrepreneurs tend, on average, to be either significantly younger or older than their male counterparts, following the normal life-cycle pattern of participation in the labour market. However, those that progress through to higher education in business subjects appear to have broadly the same rate of return as their male counterparts (Bosworth and Ford, 1985), although this arises partly because the lost income from alternative employment is lower. It has been argued that female owner-managers also face considerable career discrimination, smaller businesses and earn lower levels of income (Kalleberg and Leicht, 1991). The result is that the female entrepreneurs tend to be less experienced, both managerially and technically, than their male counterparts (Clutterbuck and Devine, 1985).

Harriman (1985) summarized a large body of such findings by stating that men and women did differ in terms of the values they attached to various organizational rewards, their commitment to work, the satisfaction they received from work and the sources of that satisfaction, the extent to which they were motivated by achievement,

affiliation or power needs, and the sources to which they and others attributed their successes or failures. This suggests that differences between male and female attributes may be due, in part, to initial expectations. The female owner-manager's challenge is to confront business development; however, she may face the barrier of finance. There may also be problems in developing relevant experience and in forming networks with customers, suppliers, and advisors. These factors may lead to real barriers confronting female entrepreneurs. This, in turn, may lead to lower satisfaction in firm growth.

Other issues facing females in the operation of small businesses are their dual responsibilities of household and family versus employment. Females tend to spend fewer hours working in their businesses than males, due to home and family commitments (Mazzarol et al., 1999). Further, the traditional female occupations are often remunerated at a lower level than their male counterparts. Particularly in countries with Chinese cultural backgrounds, male owner-managers should be more capable of running a business properly. The female entrepreneur has to focus on some problems such as commitments to children and to the family which prevent her from working longer hours, or the lack of personal confidence in business matters, or less credibility with financial institutions in taking the business seriously (Sit et al., 1991; Storey, 1994).

However, Storey (1994) reported that the gender of the owner-manager was not a key influence upon subsequent business performance. There being no difference in the performances of firms run by males and females (Kangasharju, 2000; Chell and Baines, 1998; Watson et al., 1998). Cooper et al. (1989) showed that there were no significant differences between the sexes in terms of their initial expectations for their venture's success. Nevertheless, there have been a lot of success stories demonstrating that business success can be achieved by female owner-managers (Olson and Currie, 1992; Jacobson, 1993; Orser and Scott, 2002). There was also evidence suggested by Cooper and Artz, (1995) that female owner-managers starting for non-economic reasons with lower initial expectations of their venture's success were perceived to have a greater level of satisfaction in business performance than their male counterparts.

While the majority of the female owner-managers viewed their family responsibilities and child-rearing as a barrier to self-employment, Mazzarol et al. (1999) found that there were several cases where owning a small business offered a favourable alternative to having a '9 to 5' occupation. For example, several young mothers would like to have their own businesses since they can have absolute power to enjoy flexible working time and mobility of running their own businesses. Some can work out of home, or work at home, and can even combine childcare with work.

The issue of gender has been examined in previous research studies although it has only become a topic of strong interest in the past years. Much of the literature relating to small business issues has tended to ignore gender differences, as reported in Storey's (1994) research. Another problem has been found is that the participation rate among females in small businesses as owner-managers is relatively low (Curran and Burrows, 1988), although this gap is rapidly closing.

2.4.3. EDUCATION BACKGROUND

For traditional practice, well educated persons were more likely to work in large organizations with better security of income, while less educated persons were more likely to run their own businesses to increase their revenue (Storey, 1994; Sit et al., 1991; Bolton, 1971; Watkins, 1983). This was no longer the case since the formal educational level of entrepreneurs has been rising over the past years (Douglass, 1976). This was supported by Thompson's (1986) study that entrepreneurs had higher levels of formal education in Canada. Cooper and Dunkelberg (1987) also reported a U.S. sample of entrepreneurs with significantly higher levels of education than the general population.

Recent research has generally found that education is advantageous in giving the entrepreneur an edge in achieving firm growth (Kangasharju, 2000; Cooper and Gason, 1992). Thus, generally speaking, education can be expected to be related closely to firm growth. Education can contribute towards developing the entrepreneur's analytical and managerial abilities to define strategies, introduce planning and control systems, replicate the systems if necessary, screen applicants

and recruit employees for specialist positions within the business and delegate tasks, all of which are essential for business expansion (Casson, 1991). Basu and Goswami (1999) suggested that even if educational qualifications were not directly relevant to the business, they might contribute to growth in other ways, for example, by improving the entrepreneur's communication skills with the majority community, including banks, which might in turn help to lift external financial resource constraints and lower barriers to business development.

Education provides a basis for the intellectual development necessary in managing business, and thus, the education level of the owner-manager significantly influences business growth (Basu and Goswami, 1999; Cressy, 1994). Theoretically it could also be argued that a higher level of education provides the individual with greater confidence in dealing with business. Education is a key constituent of the human capital needed for business success, as educated owner-managers have high earning expectations in achieving business success. In connection with entrepreneurial success, Storey's (1987) research is relevant. He showed that there were some differences between the backgrounds of the owners of fast and slow growing firms. Owner-managers of fast growing firms in his study were better educated although their relative education levels were not so high, their styles were more practical and they had more varied job histories, in comparison with those owner-managers of slow growing firms (Glancey et al., 1998).

The alternative argument is that business ownership is not an intellectual activity. Individual entrepreneurs are often poorly prepared for their task and this situation can come about because of the absence of other choices. Instead, entrepreneurship is an opportunity for the less academically successful to earn high incomes. It may even be that individuals with the highest academic attainment are likely to be insufficiently challenged by many of the mundane tasks associated with business ownership (Storey, 1994).

2.4.4. PRIOR MANAGEMENT AND SECTOR EXPERIENCES

Storey (1994) concluded that prior managerial experience was associated positively with small firm growth. Owner-managers with managerial experience, normally obtained in their previous jobs, have more contribution to their firms' growth. However, there is no perfect conclusion. Some researchers demonstrate no relationship, or even in the case of Dunkelberg et al. (1987), found that there was negative impact on business growth. Keeble et al. (1992) found that individuals who had previous managerial experience within large organizations were significantly more likely to establish their own businesses.

Owner-managers of both fast and slow growing firms usually start off their employment in large organizations, but moved to small concerns prior to founding their own. Storey (1994) showed that around one-third of owner-managers in both fast and slow growing firms had previous business foundations and prior sector experiences. Turning to the degree of managerial experience, the owner-mangers of fast growing firms were much more likely to have been managers immediately prior to business founding.

Two contrasting hypotheses have been presented in Storey's (1994) approach. The first is that individuals who had previously worked in the same sector in which they established their businesses would have developed expertise and experience that may significantly affect business growth. Previous research has shown that prior experience was related positively and significantly to small business growth (Basu and Goswami, 1999). Duchesneau and Gartner (1990), in an extensive field study in eight metropolitan centres in the Pacific regions of the United States, found that successful entrepreneurs were more likely to have been raised by entrepreneurs, and to have had broader business and prior start-up experience. Another study by Cuba et al. (1983) indicated that prior experience was needed by entrepreneurs, particularly females, for success in business growth. Focused on similar factors, a study conducted by Tan and Tay (1994), based on a questionnaire survey in small manufacturing and commercial enterprises in Singapore, found prior sector experience was related positively to small business success and growth.

An opposite approach is also important for business success, however, as it is also necessary to provide different products or services which have never been done before. So, it is the individual coming fresh to the market who is more likely to bring innovative business ideas, or to do things uniquely and differently from previously, or from other firms, and thus achieve business growth.

2.4.5. MOTIVATION

While most owner-managers are satisfied with their work situations, motivation takes different forms. Independence, power, social status, remuneration and contribution to the national economy are all important factors (Hankinson et al., 1997). Individuals are motivated largely from within, and this is crucial to create awareness. By creating awareness, individuals who can identify whether they are seeking autonomy, self-esteem and personal achievement are all well motivated (Cromie, 1994), however these are personal motives which may not lead owners to develop their firms. It is worth asking whether the state should support the self-indulgence of these individuals. Storey (1994) showed that the owner-managers of rapidly growing firms are motivated by the desire to exploit a market opportunity, rather than by the desire either to gain autonomy or for self-actualization. In practice, while the acquisition of material reward is a significant motivation for business ownership, it is prioritized by small business owners below job satisfaction and personal fulfilment in terms of return on investment or effort they have made.

All motivational programs are good if they work, but which one is best depends on the company and its situation. Individuals are motivated essentially from within, but it is important to create awareness. They are motivated because they value the outcome and engage in behaviour which produces the justified and desired result. By creating awareness and letting individuals know that business proprietorship can lead to personal autonomy, achievement and job satisfaction, potential entrepreneurs can be attracted to this career (Cromie, 1994).

This stylized view can be classified somewhat to account for two categories of owner-manager: the 'artisan' and the 'pragmatic' approaches, which are different

attitudes towards growth. While ownership itself, and the status that this infers, may be more important than salary, the alternative issue is that material reward is the key factor of motivation. The distinction between material reward and ownership is not clear-cut because the economic value of ownership is equal to the discounted sum of future earnings, and these depend on continued ownership.

However, there is surprising consensus that the best motivation can be a negative one. Few owner-managers consider negative motivation as an integral part of an overall motivational program for their businesses (Mancuso, 1990). Storey (1994) synthesized some of the explanations which have been provided by researchers that motivation was related closely to business growth. At its most simplistic, a crude distinction was made between positive and negative motivations. The distinction needs to be drawn between negative motives (push factor) which force people to opt for self-employment, and positive motives (pull factor) which attract people into business (Storey, 1994; Watson et al., 1998; Gary, 1990).

A positive motivation is more likely than a negative motivation to lead to the establishment of a business which subsequently grows faster. Positive motivations include the perception of a market opportunity for a product or service and the desire to make more money. This is identified as “pull” since people are being attracted by their desire. Gary (1990) noted that the lure of personal independence was an important “pull” factor in the decision to seek a career as a small business owner. Pull factors may also include the desire for independence and success, financial betterment, higher social status, niche market identification, greater personal freedom and control, best use of expertise, previous business experience and market research showing high growth potential (Basu and Goswami, 1999).

Negative motivations, on the other hand, are identified as “push” since people are forced to build up their own businesses. Push factors include dissatisfaction with current employment, threat or actual unemployment, inability to find salaried employment, underpaid salaried work, discrimination in the labour market and redundancy (Basu and Goswami, 1999). Gary (1990) noted that “push” factors blocking promotion play a stronger role for many self-employed. Alternatively, self-employment may provide a satisfactory level of income to the business owner.

Nevertheless, no matter whether the motivation is positive or negative, the hypothesis is that those individuals beginning with positive motivations are more likely to establish businesses which subsequently grow faster than those with negative motivations (Glancey et al., 1998). An alternative explanation may be that people who enter business motivated by negative factors are less well-equipped or less keen on business and hence do not do so well.

On the basis of their findings, Kirby and Evans (1997) suggested a typology of entrepreneurs in small technical consultancy firms, in terms of their motivations for creating the firm. They identified three types of motivations which they termed:

1. 'Opportunist' entrepreneurs, who are 'pulled' to pursue a market opportunity which they have identified;
2. 'Lifestyle' entrepreneurs, who are motivated by being in control of deciding the nature of the work they undertake, to which they can apply their specialist knowledge and development of their expertise;
3. 'Accidental' entrepreneurs, who are 'pushed' into entrepreneurship through redundancy and a lack of suitable employment opportunities.

'Lifestyle' entrepreneurs may be a special case in that their motivations are quite different from those found in the general population of entrepreneurs. It may be argued that these individuals are essentially 'pulled' into entrepreneurship, in that they purposively choose entrepreneurship over paid employment.

Motivation plays an important role in small firm growth. The employee is more likely to be satisfied with his or her work because the tasks are less routine and provide more direct job satisfaction in a small firm. In management that is closer and more approachable key decisions can be reached on a more informal basis, leading to lower absenteeism. Adopting a dynamic perspective, it may be argued that motivation, as a push factor, forces individuals into adopting opportunistic entrepreneurial behaviour by poor performance, which threatens the survival of the firm. Alternatively, motivation can act as a pull factor to lead individuals by unexpectedly good performance, which is a result of having gained a critical mass of entrepreneurial experience. Two different models of small business growth are

developed. Churchill (1983) suggested that the dynamic process of small business growth was linear, with a progression from an informal managerial style in the early stage to a more professional style in the later stage. Others, however, suggested that this process is non-linear, discontinuous and individualistic (Bygrave, 1989). The impact of changing motivations on objective-setting does not account for the ways in which these changes are manifested in terms of strategic practices. A full understanding of the entrepreneurship process can only be gained from entrepreneurialism development, along with motivations, expectations and goals.

2.4.6. UNEMPLOYMENT PUSH

David Birch (1979), in the USA, found that small firms were the major source of new job creation. It is widely recognized that those countries having a high proportion of employment in small firms would be expected to have, for example, faster rates of economic growth. However, there would be lower levels of unemployment and lower rates of job shedding in the period of economic difficulty.

In most countries, particularly developed ones, interest in self-employment has paralleled interest in the role of small businesses as a major source of job creation. Self-employment is generally defined to encompass employers, own-account workers, members of producer co-operatives and in some cases unpaid family workers (Storey and Johnson, 1987). In some instances, although some employers currently do not employ other individuals, they may be thought of as 'apprentice' employers. They may start a business as own-account workers, but in the event of an increase in demand for their products or services become employers.

Evidence has been documented about the importance of unemployment as a factor explaining the growth of self-employment (Storey and Johnson, 1987). They found that the proportion of self-employment to civilian employment fluctuated counter cyclically in most Asian countries. The regression coefficient is that a 1% rise in unemployment has tended to increase the proportion of self-employment by approximately 0.3%. This indicates that there is a clear relationship between unemployment push and self-employment. In such situation, people tend to build up

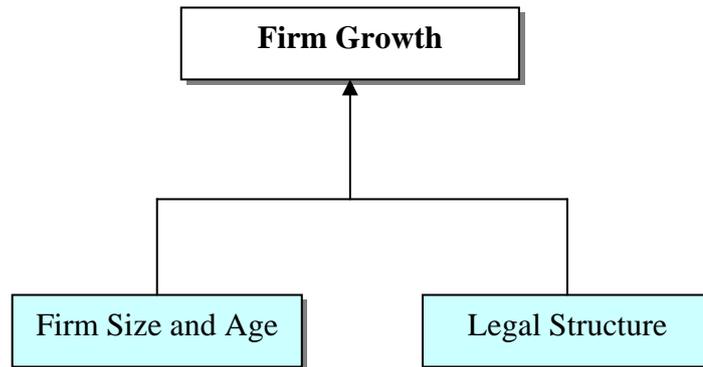
businesses by themselves instead of sitting still to wait for another new job, particularly during a period of economic difficulty.

It appears that there is no clear relationship between the size structure of employment units in a country and its economic performance in terms of employment creation/reductions in unemployment. Unemployment push is particularly a key factor to force individuals to start their own businesses, however, it is usually found that if the founder is unemployed, the firm is unlikely to grow as rapidly as when the founder is employed. The reason for this is that the unemployed founder is the only force to start up a business without any intention, consideration, planning or even any new ideas, and with a lower level of skills needed to achieve in the new business. Unemployed founders may have lower aspirations for business growth. Conversely, employed founders usually have a great deal of intention, consideration, planning, and new ideas with better skills to build up their businesses. In such case, they have much confidence in doing their business and achieve better performance in firm growth.

2.5. THE NATURE OF FIRM

The firm growth may be affected by its age, size, and legal structure. Generally speaking, a younger firm grows more rapidly than an older firm. It is also interesting to look at the firm size. A small firm tends to grow faster than a larger firm does. It is also expected that more rapid growth will be experienced by a limited company than by either a sole proprietorship or a partnership. Figure 2.2 illustrates how the growth of a firm can be affected by its age, size and legal structure.

Figure 2. 2 The Determinants of Firm Nature Affecting Firm Growth



2.5.1. FIRM AGE AND SIZE

2.5.1.1. Firm Age

Firm age has been a widely used factor to test the firm growth in previous research. The general pattern is that a younger firm grows more rapidly than an older firm (Glancey, 1998; Storey, 1994; Dunne et al, 1989; Evans, 1987). Storey (1994) found that, due to the effect of minimum efficient scale (MES), a young firm was more likely to achieve significant growth. The fact is that, once this is achieved, a business will grow rapidly in the early years and subsequently grow slowly afterwards. This is because the owner-managers are either lacking motivation to continue to grow the business once they have achieved a satisfactory level of return, or by the diseconomies of scale which emerge from the need to employ and manage others.

Some other studies have provided evidence to support Storey's inverse theory of the relationship between firm age and growth. Almus and Nerlinger (1999) examined this factor for more than 10 years and found that firm age was still a significant factor affecting firm growth. There was a negative correlation between firm age and growth rate in their multiple regression analysis. Tibbits (1999), using data from Australia, found that older firms grew less rapidly than younger ones. Firm age is an important factor in determining business. Wagner (1995) found that older firms grew less than younger ones in his multi-variable analysis of a census of manufacturing

industry. Glancey (1998) also proved, in his analysis in Scotland, that firm growth was related inversely to firm age.

Very young firms which survive tend to grow rapidly due to innovative ideas and dynamic management together with the fact that they are likely to attract the attention of major industry players. Those running younger businesses are less likely to know their average gross profit and much more likely to use a profit calculation than sales or order figures to monitor the firm's performance regularly. These two factors would seem logically linked, since if firms do not know their gross profit margins, they would need more accurate monitoring methods to learn from experience their firm's profitability trends.

However, the firm's age may be associated positively with firm growth, with older firms more likely to grow faster than younger firms (Das, 1995). Older firms may have the advantage of having established finance, goods and services (Heshmati, 2001). Older firms may be better placed to achieve stronger growth because of their greater expertise and experience. Older firms may benefit from dynamic economies of scale by learning from experience, old firm reputation, and higher profit margin on sales. In addition, older firms may have developed routines which are out of touch with changes in market conditions, in which case an inverse relationship between age and firm growth can be identified.

Thus, the expected coefficient of firm age variable can be either positive or negative. It is also possible that larger firms grow faster than smaller ones due to their ability to employ more skilful managers and workers and to acquire more efficient production facilities.

2.5.1.2. Firm Size

There are relatively few studies available which systematically analyze the characteristics of small business by firm size (Storey and Johnson, 1987). With no doubt, firm size is the most widely accepted factor in relation to firm growth (Davidsson et al., 2002). Firm size is basically measured by the number of

employees, and firm growth can be determined by the firm size. The size of a firm has become an important factor of consideration.

For the same reasons as associated with the age of a firm, a smaller firm tends to quicker growth than a larger firm due primarily to the achievement of Minimum Efficient Scale (MES) (Storey, 1994). Increasing firm size will be encouraged by economies of scales. These arise where the productivity brings about falling costs per unit of output with an increasing rate of input up to the MES effects – the size of a firm beyond which cost savings become small. These economies of scale may be offset by diseconomies which arise from the greater productivity associated with increasing firm size. There may, in addition, be economies of scale at the firm level due to the spreading of overheads, the use of common facilities, and financial savings. It is not surprising to find that newly formed firms have greater growth rates since new firms start small and are very young. Almus and Nerlinger (1999) have proved that this newness growth phenomenon was due to the need for the firm to achieve the minimum efficient size rapidly. Beginning size and age are clearly important factors in firm growth.

Small firms may be more flexible than large firms. It may be easier for a company with fewer workers and one chief decision-maker to react to changes in the marketplace, or to pursue new areas of business than it is for a larger company (Barkham et al., 1996). When a firm grows to a certain size, an entrepreneur loses his ability to maintain direct contact with all his staff, and has to make use of intermediary staff. Staff will then lose the track from their senior direction. Another reason is that when a firm grows at a rate faster than that which the owner-manager can manage, it may experience diseconomies of scale which may reduce the level of firm growth. Firm growth may remain static particularly if the owner-managers are motivated more by non-pecuniary returns with lower levels of profitability. Evans (1987) used the U.S. data to compare firm size and growth rate, and found a significant negative relationship between size and growth rate. That is, larger firms have lower growth rates. Chow and Fung (1996) studied firm dynamics and industrialization in China and found that firm size and growth rates were correlated negatively. Wagner (1995) used the data from the manufacturing industry in studying the relationship between firm size and growth rate, and came to the same outcome.

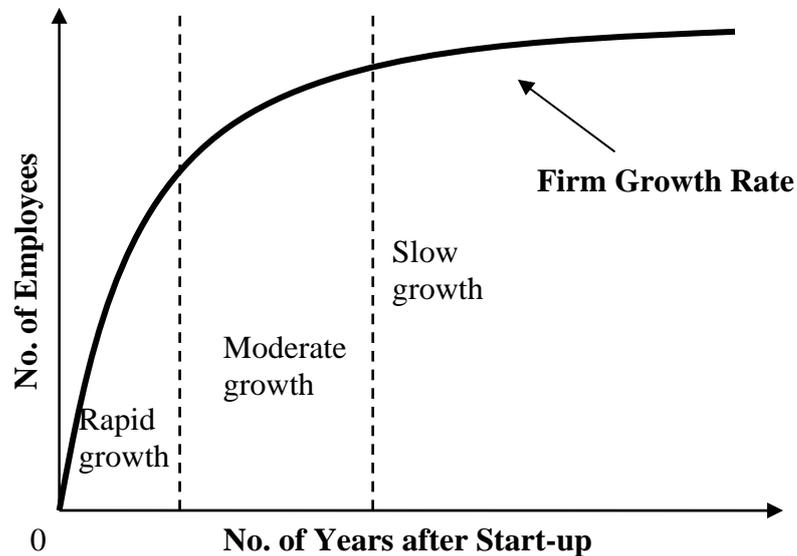
A positive relationship between firm size and firm growth suggests that owners of larger firms were more optimistic than owners of smaller firms (Gartner and Bhat, 2000). Larger firms can achieve their sizes as a result of being managed by owner-managers who have better levels of entrepreneurial acumen and managerial ability (Glancey, 1998). This is the case until the owner-managers get near, or reach, their comfort level of firm size. Phillips and Kirchhoff (1989) provided empirical research that showed a start-up firm with five or more employees had a much greater six-year survival rate than one that started with fewer than five employees. Confirmation was found in Wagner's (1992) research, where start-up size was correlated positively with growth among new manufacturing firms.

2.5.1.3. The Relationship between Firm Size and Firm Age

According to Storey's Minimum Efficient Scale (MES) theory, the number of employees generally increases rather rapidly during the first few years, levelling off in later years as the firm matures. The development of firm growth can be illustrated by the curve shown in Figure 2.3. The resultant curve is similar to Storey's theory. The model of firm growth suggests that the valuation ratio of a company initially rises rapidly with growth, then declines gradually at a later time, and levels off at the mature stage of the firm.

Figure 2. 3 The Relationship between Firm Size and Firm Age (Revised)

Source: Lundstrom (1990)



There are some explanations for this kind of pattern. For example, a firm grows rapidly in the early years, and slows down in the following years, because the firm's capacities, such as office facilities, space, and various kinds of capital pay-up, are designed from the start for a certain limited size, and it is not easy to expand beyond this point. If a firm wants to grow beyond such a point, it may have a higher investment, and a higher risk will be taken.

Moreover, the owner-manager has limited capability to manage a fast-growing firm. Normally, the founder of the firm can only handle a rather small company. If the firm grows beyond to a certain point, additional management personnel are required to sustain the growth performance. For instance, one person can handle a firm with fewer than ten employees without much difficulty, however above this point a specific administrative department is required. From the market point of view, a smaller firm's operation is limited, and the customer base is stable. Firm growth is faster in this early stage, and the firm can have a better performance. If a firm keeps on growing continuously, additional expenditure on or investment in marketing will be necessary due to the effect of economy of scale.

2.5.2. LEGAL STRUCTURE

2.5.2.1. Number of Founders

A SME is usually established by a small group of founders with part shares in the ownership, or it may be just by an individual who wholly owns the business. It is generally argued that businesses owned by more than one person are more likely to grow rapidly than businesses owned by a single person since the management of a business requires a range of skills. Joint efforts from different partners may provide synergetic effects to manage the business successfully.

2.5.2.2. Legal Form

Businesses can take on several different legal forms, the common forms being sole proprietorship, partnership, and limited company. People may set up their own businesses as sole proprietorships, or they may pool their resources together to form partnerships, or both types of businesses may also be formed into limited companies to limit their legal liability. Logically speaking, these options may form a sequence in the evolution of small firms. It may be possible that an entrepreneur will first form a partnership or set up in a limited legal form due to insufficient capital. Once assets are generally built up, the sole ownership of the business may expand. Alternatively, it may be possible for the entrepreneurs to start up their own resources at the beginning. To further expand their businesses, additional shareholders may be recruited or join in.

The paramount among these is the limited liability legal form because it limits the owners to some types of liability due to the business operations (Davidsson et al, 2002). Moreover, since the limited liability legal form is an important factor, it is likely to encourage owners to change the legal form to enhance firm growth. A firm will change its legal form as it grows larger, or the owner will choose to change the legal form as the attitude shifts towards growth.

Storey (1994) pointed out that limited companies are more likely to grow rapidly than sole proprietorships or partnerships. Limited companies have the prime benefit of corporate status with limited liability and the apparently increased credibility which their businesses have in the eyes of both their customers and supporting banks. Almus and Nerlinger (1999) studying the initial legal form of a small firm in Germany, showed that the firms with limited liability form realized higher growth rates than firms where owner' private capital investments were liable. A firm with limited liability is more likely to take risks as the owner's personal wealth is protected from the firm's excess losses. A limited legal form firm tends to encourage firm growth. Davidsson et al. (2002) found evidence in their empirical analysis of business growth in Sweden that legal form was the first ranked of the six variables. They found a positive correlation between the limited liability form and the firm growth. This confirms other researchers' findings in other places (Storey, 1994; Almus and Nerlinger, 1999; Rosa and Scott, 1999).

Alternatively, it can also be argued that limited companies have a higher failure rate than either sole proprietorships or partnerships. Almus and Nerlinger (1999) found that partnership with other firms correlated with greater growth rates. Rosa and Scott (1999) also commented that multiple directorships among small firms might be an adequate substitute with the same function as the limited legal form

2.6. THE FIRM STRATEGY

The strategy literature has suggested that high growth businesses were characterized by successful strategies (Curran, 1996; Chan and Foster, 1999). This implies that growth is an organizational outcome that reflects choices made by owner-managers. The effectiveness of the overall business strategy depends substantially on how well activities in the various functional areas are integrated to form a pattern (Galbraith and Schendel, 1983; Porter, 1991). This pattern defines the firm's business strategy and therefore competitive position within the industry (Mintzberg and Quinn, 1991). Specifically, high growth SMEs depend on pursuing differentiated strategies. Most SMEs generally rely on a few main customer bases, face a limited number of

competitors, and stress the importance of quality services such as personalized service as well as cost and price leadership. The source of the uniqueness that drives the differentiation strategy pursued by high growth SMEs is frequently innovation, product differentiation, and closer customer relation. SMEs that are technically more sophisticated or technologically more innovative are likely to grow faster. The ability to respond to market changes is an essential prerequisite for the growth of a small business (Smallbone et al., 1995).

The use of formal strategic planning is defined in terms of the plans of an organization being written down, and relatively long-term planning with objectives and goals specified (Storey, 1994). Faster-growing firms are more likely to devise and implement formal planning procedures.

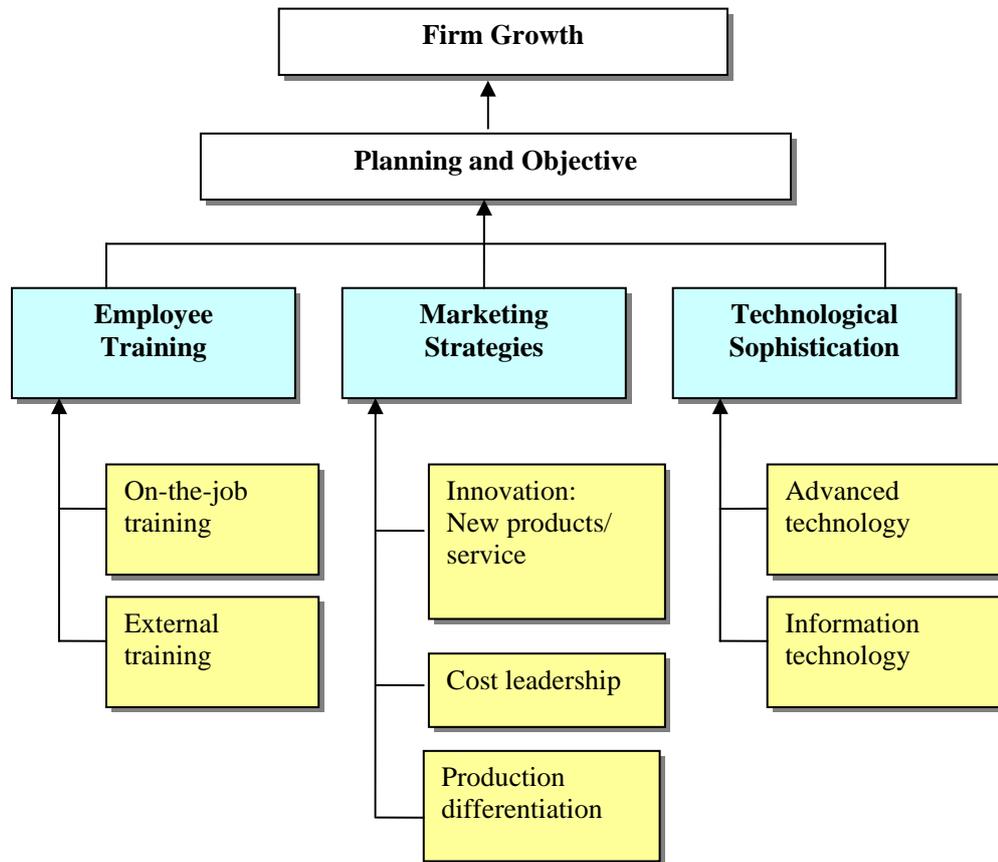
Porter (1980) suggested three generic business strategies: cost leadership, product differentiation, and focus (the niche marketing strategies) for enhancing the competitive advantages in the marketplace. Whilst recognizing the importance of this conceptual framework, the approach of this study is that these strategies could be desegregated into a series of more precise business development activities.

Phillips and Kirchhoff (1989) stated that high-technology small firms were more likely to grow rapidly, other things being equal, than those in more conventional fields. They found that the more technologically sophisticated businesses were more likely to grow faster than those with lower levels of technical sophistication.

Further to employee performance, the likelihood of firms undertaking training for their staff appears to increase with the size of the firms. It is expected that firm growth would behave differently if staff training is related positively to growth.

To determine whether there is a measurable relationship between the specified characteristics of the company required to achieve growth and the capabilities of the firm, the variables are described in Figure 2.4.

Figure 2. 4 The Determinants of Business Strategies Affecting Firm Growth



2.6.1. PLANNING

The sophistication of the strategic planning has been identified as a primary factor that enhances financial performance in small businesses (Bracker and Pearson, 1986). Planning thus is the first step and the key issue in contributing to business success. It is important not only to increase the success rate, but also because it affects the firm's performance. Huck and McEwen (1991), in their research involving manufacturing and service businesses, identified planning and budgeting and marketing strategy as most crucial for the successful operation of small business (Wijewardena and Tibbits, 1999). The function of planning implies that goals and objectives have been defined (since it is not possible to plan without a goal). The presence of a written long-term plan covering at least three years, the formulation of

goals and strategies, and some methods of evaluating progress should be developed in improving a firm's performance (Rue and Ibrahim, 1998). If goals are unknown, it cannot be possible for planning to take place. The success of the business should be a measure of achievement, which would presumably be the ability to achieve goals. For example, from the economic theory concept, businesses attempt to maximize the owner's wealth, personal satisfaction, power, and interesting lifestyle.

Management planning and evaluation are scarce in the average small business and, in particular, long-term planning allied to company goals and objectives is rare. Competition with established, often larger, companies exists with superior or lower-priced products and service. Small firms mainly focus on upgrading services and devising strategies to circumvent shortages of demand, hence the implementation of planning is neglected.

On the basis of evidence from previous studies, Dess et al. (1997) and Knight (2002) reported that uncertain and complex environments often necessitate a strong entrepreneurial posture in strategy making. Researchers recently postulated that persistent market planning was a prerequisite for the success of SME growth and have shifted the research thrust to proactive marketing strategies (Siu and Kirby, 1996). Planning should be proactive instead of reactive, which formulates the change in marketing strategy alongside firm growth. It can be long-term or short-term, and should be written down with objectives being specified. Planning can encourage firm growth; it can also be associated with a movement towards greater size and formality. Researchers have found that firms with structured planning procedures had better performance than firms with non-structured planning procedures (Bracker and Pearson, 1986; Rue and Ibrahim, 1998). Formal planning results in a wider variety of strategic decision-making. It has been found that structured planning processes were more thorough and were associated with improved firm growth. Although formal planning appears to be characteristic of larger businesses, it is noted that, for today's management, planning is no longer considered to be associated with success of small firm performance. Many SME practitioners find that a successful firm needs to have flexible strategies, to enable it to adapt more readily than rivals to unforeseen events, and more sophisticated planning.

2.6.2. MARKETING STRATEGY

Reid (1988) suggested a theory of small firms subjected to perfect competition. Entry and exit from the market are free, whereby entry is stimulated by profit and exit is precipitated by loss. Small firms normally have no control over market price, and pursue the objective of profit maximization, given the price. In the equilibrium state of such a market, a unique, most efficient type of small firm emerges. Entrepreneurial attitudes mould the goals of the enterprise. Traditional theories view the small firm as owner-managed and profit-maximizing for several reasons (Storey, 1994). Net revenues form the owner-manager's income, and they are assumed to be located in competitive areas where profit maximization is necessary for survival. Managerial theories of the firm, on the other hand, view the larger firm as oligopolistic, where ownership and control are divorced. The conventional or formal strategies are inappropriate for small firms, as small firms are "different" (Hill, 2001).

Niche marketing positioning strategy is one of the key factors influencing small business growth (Wijewardena and Tibbits, 1999). Ghosh et al. (1993), in their study of SMEs in the manufacturing, financial, and merchandising sectors in Singapore, reported that ability to satisfy customers, finding a market niche, good service, and good network connection were the chief success factors. For example, a transportation firm fills an important niche in the industry by providing exclusively full-customized labour supply for value-added service of packaging with specialized facilities and equipment to large firms. In this case, the principal customer is a rival firm, though in a competitive sense the relation is one of mutualism because of their preference for reaping the benefits of economies of scale from large volume production - large firms are likely to satisfy a small firm's demand. Most of these small firms are in expanding markets which promote a symbiotic relationship between small and large in the same industry. The small firms are able to thrive on the small orders which are of no interest to the large firms, therefore focusing on the transactional advantage of being small in this case.

As mentioned previously, Porter (1980) suggested three generic business strategies, cost leadership, product differentiation, and focus (unique product or service), that can affect the success of business growth significantly.

Cost leadership and differentiation strategies are operated at the level of the industry (Chagnanti et al, 2002). The cost strategy requires capability in controlling purchasing and production costs, labour and distribution costs, the achievement of ongoing productivity improvements, and efficient utilization of capital assets (Chandler and Hanks, 1994). Cost leadership can arise either as absolute cost advantage or as cost advantage arising from firm size (Basu and Goswami, 1999). Absolute cost advantage refers to factor cost differences arising from access to cheap labour, favourable raw materials supply or cheap capital. These advantages are major consequences of firm size.

The challenge for small firms is to serve narrow markets well by using the approach of 'differentiation' that is not readily replicated by larger competitors partly because of the distinctiveness of the small firm's approach, and partly because the segment is not sufficiently large to warrant attention. 'Differentiation' or 'specialization' strategies require a continuous and concerted effort to differentiate in terms of, for example, product uniqueness, customer service and support, and custom-made products and services. From the limited resource base of the small firm, differentiation is usually based on highly specific factors. Successful product differentiation strategy can be summarised as having the following characteristics (Porter, 1980):

1. Being seen to be 'specialists' or 'unique';
2. Having products or services that are 'innovative'
3. Making continuous and concerted effort to differentiate thereby avoiding direct competition with large firms;
4. Making deliberate and planned attempts to grow and diversify with careful attention to the product market choice and the resource base.

The niche strategy is directed at a segment of an industry only and may involve the search for uniqueness. In the study, the framework has been used in a way which is

appropriate for the small firm's strategy. Marketing strategy is complex and there may be a wide range of concepts in different types of small business. In order to make the concept clear for the purpose of this research, the focus will be on the idea that firms providing unique products or services using differential strategies in comparison with their competitors can have significant growth in their business development. The fast-growth firm is much more likely to see its competitive advantage in terms of the differential marketing strategy which it offers or the service which it provides. It is suggested that firms with good marketing strategies grow faster than those firms without any marketing strategy. In order to ensure the continuous significant market growth, increased value-added relative to fixed costs, no intermittent overcapacity, rapid technological advance, marked product differentiation, and market positioning, there is considered to be ample scope for manoeuvrability and entry.

It has been noted that innovation and the identification of a particular niche are key strategies associated with rapid growth in small firms (Beaver, 2001). Innovation refers to the development of novel and unique products, services, or processes. It involves the conscious effort to create purposeful, focused change in the economic or social potential of an enterprise, at the basis of which lies individual creativity and intuition (Phillips, 1993). The creativity and intuition can provide a high degree of independence and autonomy to implement a new or differential idea, product, or service in the marketplace to testify their viability and feasibility.

New product introduction is another indicator of innovation, which is well known in the marketplace and is being recognized as a key factor significantly affecting the growth of small business (Storey, 1994). The more rapidly growing firms are more likely to have made new product or service introductions than those firms with no new products, or no genuine innovation, or even no product development in their product range (Smallbone et al., 1995).

While there is no single type of strategy that is independently associated with growth, the best performing firms are those which are the most active along a number of dimensions while being particularly active in managing their products/services and markets. In this respect, the clearest differences between firms

with fast growth and firms with lower levels of performance are with respect to their approaches to product service and market development (Storey et al., 1989). While it is the case that firms need to pay attention to products and markets, the best performing firms are those which are the most active in developing new products and services for existing customers, developing new markets, broadening their customer bases, taking steps to make their products more competitive and in managing their product portfolios.

2.6.3. TECHNOLOGICAL SOPHISTICATION

Technological sophistication, in Storey's (1994) study, refers to investment in advanced technology including information technological investment, patenting, expenditure on research and development, investment of advance facilities and equipment, and employing of qualified scientists and engineers. In this study, advanced technology and information technological advancement will be considered as a focus and tested.

Conservative attitudes and the independence ethos of owner-managers can hinder the introduction of change; small business owners lack the evaluation skills and resources necessary for costing technological change (Wijewardena and Tibbits, 1999). Hidden costs can be overlooked as a result of an inadequate knowledge of complex new technology, and this hinders investment decisions. In addition, conservative attitudes towards external financing, along with the owner-manager's inability to cope effectively with financial management, link with real limitations on the general availability of low-cost finance for small businesses to hinder the adoption of expensive new technologies.

It has been realized for some time that the type and level of technology tend not only to vary with the size of the firm, but also to have implications for the organization of the firm (Lin, 1998; Ahmet C., 1993). Smaller firms tend to operate with one-off and small-batch processes, and their level of technology is, on average, lower than that of larger firms (Yap and Raman, 1992; Bosworth and Jacobs, 1991; Woodward, 1966).

In recent technical developments, it is argued that increased use of information technology, which can be installed cheaply by small firms, has enabled many of the economies of scale previously available only to large firms. In essence, higher levels of technology involve more formal management structures with longer lines of command and a greater proportion of more highly qualified employees within the workforce (Lin, 1998; Woodward, 1966). Technology changes therefore have enabled small firms to realize many of the conventional organizational advantages of small firms. It is recognized widely that more technologically sophisticated businesses, even in conventional sectors, are likely to grow more rapidly than those with lower levels of technological sophistication (Phillips and Kirchhoff, 1989; Storey, 1994).

Steiner and Solem (1988) conducted extensive personal interviews with owner-managers in England, and found that the adoption of new technologies, the availability of resources to adopt new technology and the development of competitive advantages in advanced technology were related significantly to the success of small firm growth.

Business organizations have two main sources of management information which must be obtained: external information, obtained from the outside (e.g. concerning suppliers, business contacts, customers and changes in the business climate), and internal information generated by the business, which can be compiled from the activities in which it is engaged. Basically, large firms need to collect information on a regular basis for organizing, communicating with and monitoring staff. However, in conventional small businesses where there are only one or two decision makers, information may not have to be disseminated for these purposes. It is therefore difficult to discover how small business owner-managers operate, as the information they use may not be collected in a formal way, but may be stored in their minds. Some information which all businesses may be expected to have may in fact not have been acquired at all by some small businesses. Not much has been documented about the information which small firm owners have available to help them to manage business. Recent studies review that in order for the company to perform well, owner-managers should access to information that can assist them (Yap et al., 1992). This is generated partly internally by keeping records of the activities of the firm and

its relationships with outside parties and partly by searching the environment in which it operates for information on, for example, suppliers, customers, competitors, business partners, and legislation, etc. The extent to which small businesses need this information and are able to collect or use it is largely unknown (Levy et al, 2002).

However, the link between organization and technology provides another potential barrier for the small firm owner-managers. It implies more major changes than supposed; it raises the question of the competence of the owner-managers to steer these changes through; it may be inconsistent with the owner-managers' attitudes toward loss of control, bureaucracy, etc; and the process of development is stressful and fraught with dangers to both owner-managers and firms.

2.6.4. EMPLOYEE TRAINING

Recent evidence has suggested that those small firms which undertake training are more likely to survive and enjoy growth in employment and sales turnover than their non-training counterparts (Cosh et al., 1998; Van Der Heijden, 2001). Storey (1985) indicated that small firms in Cleveland had deficient demand and inadequate suppliers of skilled labour. Manipulating labour demand and supply is not easily accomplished by interventions aimed at the level of the owner-manger. Many owner-managers are 'me too' businessmen without normal or academic education and training practice. Much poor use of formal training relates to resource constraints such as time and money, and apprehension about the inadequacy of training courses on the part of small firm owner-managers. In the eyes of the small firm, the link between training and performance improvement is, at best, equivocal (Freel, 1999). Firms may also face problems because of a lack of experience, knowledge or confidence by proprietors. It takes time and cost to learn how to manage a business during the phase of business development. Moreover, they dare not pay too much attention to training their employees. Cromie (1991) also indicated that difficulties occurred more frequently in some areas than others. The availability of educational materials and training packages in those areas which are regularly problematic for small firms could assist in the development of the sector.

The argument that employee training would be too costly has implications for the firm's investment nature. Without appropriate training the firm may survive, but its growth potential may be restricted (Kirby, 1990). Several problems regarding employee training to be developed in small firms have been highlighted (Mahmood, 1992):

1. The lack of time available to the employee for such training;
2. The cost of training programs;
3. The acceptability of training to employees and management;
4. The quality of the training and the potential outcome of being trained;
5. Identifying which institutions should provide the training programs;
6. Identifying the most appropriate training program to be provided.

One training resource is professional advice, but there have been a number of criticisms about the quality of the infrastructure for the provision of advice to small businesses (Bosworth and Wilson, 1987). Specific kinds of appropriate training are difficult to access from outside institutions. For the in-house training programs, it is not financially possible for a SME to design and provide an entire set of training materials and program for a limited number of employees. It is also argued that training schemes are still discriminating in the acceptance of offering training programs to the employee. Government funds or subsidiary for labour training indicate a generally positive view of the assistance available, however, extensive training systems or appropriate programs specifically designed for small business are generally recognized to be neglected in most countries, particularly in the logistics industry.

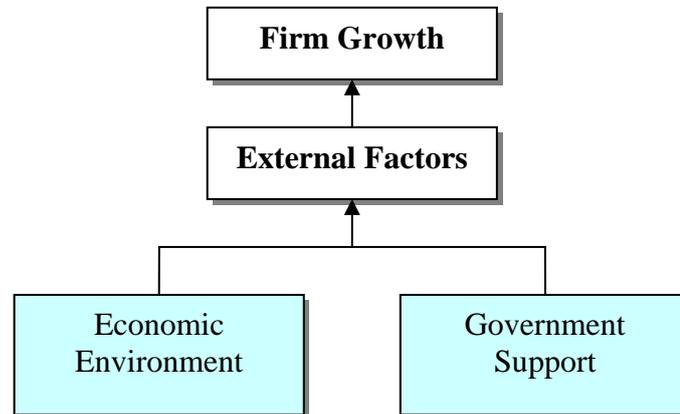
Firms may fail because they are inept or grossly incompetent and it is in no one's interest to provide suitable training to their employees since it is difficult to see what the benefits might be to the firms in the longer term. Thus, owner-managers need to be masters of many business functions and effective training packages may prove invaluable. The offering of training should also be tailored to the specific needs of their employees.

The firms that provide training for their employees appear to have better business growth (Van Der Heijden, 2001). Employers of small firms are faced with the high risk of failure if they are reluctant to make a long-term investment in employee training. Training can be internal and it can also be external. Internal training can enhance employees' on-the-job working skills. However, external training, in particular, focuses on deepening their skill bases, whereas small firms require greater variety and flexibility from their labour, rather than just deepening specific skills. Providing training to employees can also retain the stability of the labour turnover rate, thus addressing the fact that labour turnover in smaller firms is generally greater than in larger firms.

Previous studies (Cambridge Small Business Centre, 1992; Wynarczyk et al., 1993) demonstrated that there was no link between employee training and firm growth. There were no differences in the characteristics of fast-growth and slow-growth firms in Hakim's (1989) studies. However, the Cambridge survey found that the faster-growing firms were more likely to provide training than were the stable or declining firms. Basu and Goswami (1999) concluded that owner-managers who invested in employee training had achieved significantly higher growth rates than those who did not. Employees who provided suitable qualifications and training will be assisting the development of individuals' skills and competence, which creates competitive advantage to the firm (Wijewardena and Cooray, 1996).

2.7. EXTERNAL FACTORS

Figure 2. 5 The External Factors Affecting Firm Growth



2.7.1 THE ECONOMIC FACTORS

The overheating of the Hong Kong economy in the early 1990s, followed by a severe economic crisis in the late 1990s, provided a strongly fluctuating macroeconomic environment. Since this economic recession, Hong Kong's economy has experienced below-average rates of business growth. During this period the average size of firms continued to shrink, implying that firms adjusted to the recession first by reducing employees. Bankruptcies became more common later. This has led to a growing interest in determining what factors in business firms underlie the differences in their growth rates. The period should therefore be a very informative one for an analysis of the effects of economic fluctuations on firm growth determinants, an issue which has so far hardly been studied in the literature (Kangasharju, 2000).

Organizations are constrained by the external environment they operate in and consequently organizational growth can be explained in terms of these environmental forces. The nature of the marketplace in which the firm sells is associated strongly with potential growth (Covin and Slevin, 1989). The economy can affect the growth of small firms directly. Successful survivors in highly competitive environments are

likely to be more flexible and willing to take risk. The low-growth firms seem to have the poorest understanding of their external environments. However, it is very unwise for countries experiencing economic difficulties to believe that to increase the number of small businesses in an economy is necessarily likely to lead to improved economic performance. Clearly, macroeconomic fluctuations distinctly affect the probability of firm growth (Kangasharju, 2000). Figure 2.5 demonstrates the relationships between external economy and government support and firm growth.

2.7.2 GOVERNMENT SUPPORTS

Before the 1980s most countries, particularly in Asia, had no policies for the growth and development of small business. SMEs were seen as a symbol of backwardness and inefficiency rather than of wealth creation and technical change, were looked down upon by large corporations and did not receive much support from the government. However concept changes in recent years, including increased government policy and support, have encouraged and promoted the development of the small business sector. The role of the government is to ensure that the small firm is able to compete with other small firms or even with larger firms on the basis of equal opportunity.

Government policy and support can play dominant roles in assisting small firms to grow better and stronger (Yusuf, 1995). The focus of government policy towards small firms is to create employment for its citizens. The provision of public assistance can lead to increased employment by making reductions in compliance costs that will feed through into profits and prices, with the end result of a real, high level of employment in the entire economy. Satisfactory government support, particularly financial support, is perceived by the responding owner-managers as the most critical success factor in their business (Tan and Tay, 1994). Governments in many other developed countries have implemented legislation to assist the small business sector since their economies are dominated by a numerical majority of small firms. For current purposes, it is appropriate to investigate the provision of government support associated with small firms growing more rapidly. This support includes the provision of basic infrastructure, loans and tax incentives, information,

advice and protection against competition from big companies (Yusuf, 1995). For example, some countries offer some form of funds or subsidies towards capital investment to assist small firms to develop their businesses. Advice, consultancy and training support for small firms are provided widely to improve their firm performance. Financial subsidy is given to assist the reduction of operating costs to encourage the growth of small businesses.

2.8. THEORETICAL FRAMEWORK AND PRINCIPAL HYPOTHESES

2.8.1 THEORETICAL FRAMEWORK AND MODEL

Although there is no official definition of SME in Hong Kong, Wong and Sit (1992) have reviewed the Hong Kong Government statistics and, for the purpose of their study, defined small firms as ‘manufacturing enterprises with fewer than 100 employees and non-manufacturing enterprises with fewer than 50 employees’. SME refers to owner-managers who have their own businesses (or are founders of their firms) that are genuinely independent, not a division, subsidiary, or franchise of a big corporation. The approach taken in the research was primarily empirical. Therefore, a large number of personal, business and environmental characteristics of businesses was measured in related to the SME growth.

While there is a mass of literature concerning SME and entrepreneurship, there is no generally agreed theoretical framework for carrying out research in this field, particularly in the logistics industry. In order to facilitate this research and to draw on the vast literature on business growth, a research framework was developed based on the literature extant. The framework was designed specifically to aid research relating to very small or micro businesses and may not be considered useful where larger businesses are being investigated (Watson et al., 1998).

Traditional analyses of small firm growth have used statistical models of financial characteristics taken from models of established businesses (Keasey and Watson, 1991). While this approach provides useful performance models for established businesses, it is also appropriate for assessing the viability of ventures where the

skills and aspirations of the owner-manager are likely to be of paramount importance.

An analytical framework will set out some determinants that have been proposed as important in affecting business outcomes. These determinants have been identified by a review of the literature on SMEs and entrepreneurs. Clearly there are many determinants of business success and growth even in very small businesses. Successful entrepreneurship is undoubtedly a complex phenomenon and the determinants impact on business performance. Similar to those of large businesses, the characteristics of small business, the business infrastructure and the particular customer markets served are important variables affecting business performance.

Perceived behavioural control is an individual's judgment of the likelihood of performing the intended behaviour successfully (Ajzen, 1991). Subsequent testing of the model has supported its validity by demonstrating the ability of owner-managers in a variety of situations. The extent of past exposure to entrepreneurship and an evaluation of the positiveness of the past experiences influence perceptions of desirability and feasibility (Shapiro, 1982). The perceived desirability of entrepreneurial activity is influenced by social forces and this finally impacts upon the growth of SMEs.

However, with small businesses and particularly new ventures, the influence of the founder in defining the business concept and mode of operation are of paramount importance. Small firm growth is most often described as a 'process'. In the research framework, the business enterprises will consist of both the owner-manager and the business entity. The SME committee of Hong Kong (Hong Kong Information Centre, 1999) emphasized the special role of the owner-manager in SMEs. Thus, it is essential to investigate the characteristics, background experiences and motivations of the owner-manager as well as other influencing factors within the internal and external environment.

To date, there is no unified theoretical model focusing on both internal and external factors contributing to firm success. Penrose (1959) has considered both factors, but only focusing on the growth of a firm as motivated by external opportunities, such as

promising demand prospects for the firm's product, and on the growth of a firm by internal inducements, such as a shift to a more efficient utilization of existing resources, even though she also considered that these two factors might function as obstacles to growth. There are not many recent research studies that have focused on both internal and external factors. Consequently, a deliberate research model has been designed to test the hypotheses by combining Storey's internal factors together with external economic and government factors that may affect small firm growth in Hong Kong.

As far as external determinants are concerned, economic and government policy are typically the major factors affecting firm growth (Sit et al., 1991). However, internal determinants are essential factors, including the characteristics of entrepreneurs such as personal traits and their backgrounds, the firm itself such as the size, age and legal structure, and the strategies such as planning and business strategies. This research has two main foci. The first deals with internal and the second deals with external growth factors. The empirical work has concentrated mainly on the investigation of effects of certain factors on SME growth.

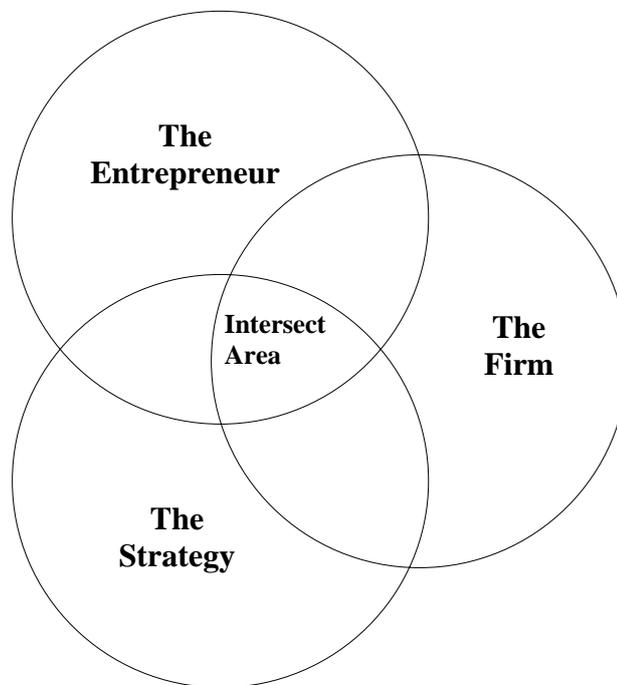
2.8.2 STOREY'S SMALL FIRMS GROWTH PROCESS

With reference to the review of recent SME growth literature, company growth is clearly influenced by a wide range of factors. Some of these are internal, and within the competence of owner-managers to control or at least influence. The others, such as economic factors, are external to the firm and beyond the control of owner-managers. Storey has extended this broad view of internal influences on company growth (Storey, 1994). He concluded that the growth process in small firms was driven by a combination of the three basic components (Figure 2.6). These are:

1. The characteristics of the entrepreneurs/owner-managers
2. The characteristics of the small firm
3. The range of business development strategies associated with growth

Within each of these three sets of factors, Storey summarized the individual elements which other researchers have shown through various surveys to have had an impact upon firm growth. In the discussion that follows we draw heavily upon Storey's comprehensive summary of the literature to outline the conceptual framework adopted in this research. It should be noted that Storey's criterion for including a study in his review was that they might have used quantitative (preferably multivariate) analysis. The studies considered were largely those from different areas in the United States of America and the United Kingdom.

Figure 2. 6 Storey's Small Business Growth framework



2.8.2.1. The Entrepreneur and Access to Resources

Storey (1994), taking his evidence from eighteen studies, identified fifteen entrepreneurial characteristics to examine whether these elements were shown to be related to the growth of the firm (see Table 2.1). Although fifteen factors which related the characteristics of the entrepreneur to the growth of the firm could be identified, there was a priori risk of specification error through omitted variable bias

in models, given that the proportion of variance explained was generally rather low. The overall conclusion was that the direct relationship between the background of the entrepreneur and growth appeared to be relatively limited. However, some consistent evidence was apparent across the various empirical studies. Some important entrepreneurial characteristics such as motivation, owner-managers' background and unemployment were associated significantly in affecting rapid firm growth.

Table 2. 1 The Entrepreneur Source: Storey (1994)

	Barkham (1992)	Hakim (1989)	Woo et al. (1993)	Kinsella et al. (1993)	Johnson (1991)	Storey, Watson and Wynczyk (1989)	Jones (1991)	Macrae (1991)	Wynczyk et al. (1993)	Storey (1982a)	Storey (1994)	Dunkelbery et al. (1987)	Dunkelbery and Cooper (1982)	Kallebery and Leicht (1991)	Solem and Steiner (1989)	Reynolds and Miller (1988)	Westhead and Birley (1993) ^a	Reynolds (1993)	
1 Motivation	+			+	+	+			x			x						x	
2 Unemployment push				x	x				-	-	-						x	x	-
3 Education	x	x	x	+	+	+	+	+	x	x	(+)	x	+	x	x	x	x	x	+
4 Management experience	+	x	x			+		+			x	-	+		x			x	
5 Number of founders	+	+	+			(+)						+						x	+
6 Prior self-employment				x		x					x	-		x		x	x		
7 Family history																		x	
8 Social marginality (ethnic)			-								+	x						x	
9 Functional skills							+	+											
10 Training		x					x	x											
11 Age (age) ²				(+) (-)		x x	x x	x x		(+) -			- -		x x	x x	x x	x x	+
12 Prior business failure																			
13 Prior sector experience						x	-				+	-		x	x	x	x	-	
14 Prior firm size experience		x	x			x						x	-					+	
15 Gender		x	x	x	x	x	-	x	x		x	x		x		x	x	+	

Key:

+ Positive relationship between the element and growth of the firm

- Negative relationship between the element and growth of the firm

() Relationship present in a univariate context, but weak in a multivariate context

x Element not shown to be significant in influencing growth

2.8.2.1.1. Age

Storey (1994) suggested that two hypotheses might be presented to explain the impact of the age of owner-manager in relation to firm growth. The first was that younger owner-manager would be more successful in firm growth. The converse argument was that older owner-manager was more likely to have better firm growth. Another alternative argument combined the two, that the middle-aged owner-manager was more likely to own a growing firm.

To test these hypotheses, row 11 of Table 2.1 specifies two variables – age and $(age)^2$. Not all researchers reported that age of owner-manager and firm growth were correlated significantly. Only three studies have observed a positive relationship in linear form. However, three studies have observed a quadratic form, whilst two observed a negative relationship, suggesting that younger owner-managers are most likely to own rapidly growing businesses. The six remaining studies failed to observe any relationship between age and firm growth. There is some support from the studies reviewed by Storey that the age of the owner-manager when the business is established has an influence on the growth rate of that business. Therefore, the age of owner-manager can be related positively or negatively to firm growth.

2.8.2.1.2. Gender of Founder

According to Storey's summary, a male or female owner-manager could have his/her own characteristics that affect firm growth. The last row of Table 2.1 shows that fourteen studies examined whether the gender of the owner-manager was a factor in influencing the growth of the firm. All except two had no significant gender impact on firm growth. Only two cases were associated with firm growth, in which one suggested that females were more likely to have rapidly growing firms than males, and the other found the reverse. This suggests that gender may not be a key influence in affecting firm growth, but this factor can be considered as one of the variables to be tested in this study.

2.8.2.1.3. Number of Founders

Storey (1994) suggested that a business owned by more than one individual is more likely to grow rapidly than business owned by a single individual. Seven studies have been examined (see Table 2.1) and five have indicated support for the hypothesis that the number of founders is linked to firm growth, whilst one indicated that the relationship is not consistently positively related. These findings suggest that businesses begun by more than one individual are more likely to grow than single person owned firms. It is hypothesised that the number of founders is an important factor of firm growth.

2.8.2.1.4. Education

Two contrasting hypotheses can be regarded that the education background of the owner-manager is positively related in influencing firm growth or that it is related negatively. From Table 2.1 it can be seen that the education level of the entrepreneur was analysed in seventeen out of the eighteen studies. Almost half of the studies had positive relationships between education and employment growth. This provides fairly consistent support for the view that educated entrepreneurs are more likely to establish faster-growing firms. Alternatively, there is no identifiable impact on employment growth reported in nine of the previous studies. Therefore, it is hypothesised that the higher levels of education provide the owner-manager with a better performance in firm growth.

2.8.2.1.5. Prior Management/Sector Experience

The evidence from row 4 in Table 2.1 provides some support for these hypotheses. Four studies indicated a positive relationship, six demonstrated no impact, and one showed a negative relationship. Overall, management experience has been shown to be associated positively with small firm growth. However, the evidence of prior

sector experience demonstrates that both hypotheses have some merit, and the picture is mixed. Nine studies were examined, of which five studies did not identify an impact, three indicated that prior sector experience was associated with slower-growing firms, and one suggested that this experience was associated with faster-growing firms. In this study, past experience is hypothesised to be a significant factor in affecting firm growth.

2.8.2.1.6. Motivation

As summarised by Storey, motivation is a significant factor in affecting firm growth. It can be associated both positively and negatively. Table 2.1 also shows that four out of the seven studies which included indicators of this variable found a relationship between the growth of the firm and the existence of a positive motivation on the part of the entrepreneur when the business began, with exceptions being the studies of Westhead and Birley (1993) and Wynarczyk et al. (1993). The Dunkelberg et al. (1987) study also found no relationship between the reasons the entrepreneurs gave for leaving their previous employment and whether or not their newly established firms grew in employment.

At its most simplistic, the hypothesis is that an owner-manager beginning with a positive motivation is more likely than those with negative motivation to establish a business which subsequently grows (Glancey et al., 1998).

2.8.2.1.7. Unemployment Push

Unemployment push is regarded as a negative factor in firm growth. The second row of Table 2.1 provides evidence that there were eight previous studies examining this element, four of which found no impact between unemployment push and firm growth while the other four found that they had negative impacts on each other. This suggests that if the founder is unemployed prior to starting a business that firm is unlikely to grow as rapidly as when the founder is employed.

2.8.2.2. *The Firms*

A considerable body of literature has been studied and summarized by Storey (1994) concerning the elements relating to the nature of firms upon the impact of the firm's performance. Within fourteen past studies, six separate firm characteristics have been investigated consistently (see Table 2.2). They can be considered as falling into two groups. The first are those elements which reflect decisions made by the owner of the business at the time at which the business is started. These include the sector in which the business is to begin trading, its legal form, its ownership pattern and its location. These decisions are observable immediately the business starts to trade. The other two elements included within the firm component are size and age. These are included because they refer explicitly to the characteristics of the firm and are not related to either the background of the entrepreneur or the strategy employed by the entrepreneur in business. They are frequently included by researchers as control variables. The overall conclusion from the studies is that all of these control variables are important in understanding the process of small firm growth. Within those studies, firm age, size, legal form and especially sector in the markets have been evident as affecting the firm's growth significantly. However, the study in this research focused on a specific industry in one area, and the market sector was not tested here.

Table 2. 2 The Firm Source: Storey (1994)

	Cambridges Small Business Research Centre (1992)	Dunne and Hughes (1992) ^a	Westhead and Birley (1993) ^a	Barkham (1992)	Vanyam and Kraybill (1992)	Storey (1994)	Hakim (1989)	Kallebery and Leicht (1991) ^b	Jones (1991)	Dunne, Roberts and Samuelson (1989)	Johnson (1989)	Reynolds and Miller (1988)	Macrae (1991)	Storey et al. (1987)
1 Age	-	-			-	+	-	x	-	(-)				-
2 Sector/markets	+	+	+	x	+	+	x	+	+			+	x	x
3 Legal form						+	+	+			+	+		
4 Location	+						+		+		+			
5 Size	-	-			-		+	+	-	-	+			-
6 Ownership	x				+					+				

Notes:

a Dunne and Hughes measure growth in terms of net assets

b Kallebert and Leicht measure growth in terms of business earnings

Key:

+ Positive relationship between the element and growth of the firm

- Negative relationship between the element and growth of the firm

() Relationship present in a univariate context, but weak in a multivariate context

x Element not shown to be significant in influencing growth

2.8.2.2.1. Firm Age

The firm age is normally regarded as being associated negatively with firm growth. A younger firm is hypothesised to grow more rapidly than an older one. An older firm will grow slowly by the effect of low minimum efficient scale (MES). Table 2.2 illustrates that there has been an almost unanimous finding that younger firms grow more rapidly than older ones. There was only one exceptional case where no relationship was obtained. The general pattern was to show clearly that young firms are more likely to achieve significant growth than older firms. It is hypothesised that firm age is associated negatively with firm growth.

2.8.2.2.2. Firm Size

Two conflicting hypotheses can be put forward with regard to the firm size in affecting firm growth. It can be a positive sign or a negative sign. Row 5 of Table 2.2 shows the impact of firm size upon performance, with the general pattern that smaller firms grow more rapidly than larger firms. Six of the studies showed a negative sign, whilst three showed positive association. Overall, the fairly consistent pattern which emerged is that small firms grew faster than large firms. This is the same reason as for young firm growth being affected by the achievement of minimum efficient scale (MES). Therefore it is hypothesised that firm size is related negatively to firm growth.

2.8.2.2.3. Legal Form

From the studies reviewed by Storey, a limited company would have the experience of growing more rapidly than either a sole proprietorship or a partnership. The empirical studies summarised in Table 2.2 suggested that all five studies showed limited form with positive relationship to firm growth. Other things being equal, limited companies were generally associated with more rapid rates of employment growth than either sole proprietorships or partnerships. Therefore, it is hypothesised that limited liability of a firm is apparently a contributing factor to firm growth.

2.8.2.3. The Business Strategy

The performance of an enterprise is determined by the business strategy it adopts (Pearce and Robinson, 1985; Olson and Bokor, 1995). A business strategy is an overall plan of action which defines the competitive position of a firm (Mintzberg and Quinn, 1991). For example, a firm may choose to compete by producing high quality goods or by producing at low cost. The business strategy in Storey's theory refers to the actions which are taken by the small business owner-managers in

operating their businesses. Storey reviewed twelve studies and identified fourteen elements of business strategy (see Table 2.3). He examined the extent to which these are characteristics of fast-growth small firms, primarily where the criterion for growth is an increase in employment. The key elements to emerge were that growth was frequently related to planning, marketing, technology and training strategies.

Table 2. 3 The Business Strategy Source: Storey (1994)

	Woo et al. (1989)	Dunkelberg et al. (1987)	Macrae (1991)	Cambridge Small Business Research Centre (1992)	Kinsella et al. (1993)	Solem and Steiner (1989)	Wynarczyk et al. (1993)	Storey et al. (1989)	Kallebert and Leicht (1991)	Westhead and Birley (1993) ^a	Birley and Westhead (1990)	Siegel et al. (1993)
1 Workforce training				x	x		x	(+)				
2 Management training			+		(+)		x				+	
3 External equity				+	(+)	+		(+)				
4 Technological sophistication				+		+		x	x			+
5 Market positioning			+			+		(+)	x	x	+	+
6 Market adjustments												
7 Planning	+				(+)							
8 New product introduction	+	+			x	+	+	(+)	x		x	
9 Management recruitment			+				+	(+)				+
10 State support				(+)	(+)			(+)		x	x	
11 Customer concentration					x			x		-		
12 Competition			x						x	x	x	
13 Information advice		+		+	x			(+)		x		
14 Exporting				x	(+)			(+)		x		

Key:

+ Positive relationship between the element and growth of the firm

- Negative relationship between the element and growth of the firm

() Relationship present in a univariate context, but weak in a multivariate context

x Element not shown to be significant in influencing growth

2.8.2.3.1. Planning

Although there were only two studies examined in Table 2.3, planning was considered as a significant factor in affecting firm growth reported by Storey. This is reflected in the results in row 7, two studies that specifically examined the impact of planning upon the performance of small firms. One study found that planning activities contributed to a more rapid growth, and the other that the fast growth firms usually had written business plans. For recent years, planning appears to be characteristic generally in large organizations, but also in small enterprises. As its role demonstrates more and more importance in today's business, business planning becomes apparently a valuable factor to be tested in this study.

2.8.2.3.2. Marketing Strategy

Storey (1994) summarised that marketing strategies include market positioning, market adjustments, new product introduction, customer concentration and competition.

The general thrust of research results in row 5 of Table 2.3 suggests that marketing positioning is a key ingredient of growth amongst smaller firms, but that the dimensions of this positioning need further investigation. Five out of seven studies found positive associations between marketing positioning and firm growth, whilst only two had no relationship with each other. However, as Table 2.3 shows, there is no evidence of market adjustments which has been included explicitly within the studies reviewed. Row 8 of the table shows that eight studies have specifically examined the new product introduction, with five suggesting that the more rapidly growing firms were more likely to have made new product introductions. The remaining three studies did not find this to impact upon firm performance. Row 11 of the table shows three studies examined customer concentration and its relationship to firm growth, with two findings no observable impact. Only one finding (Westhead and Birley, 1993) indicates that the most rapidly growing firms were those which had the lowest levels of customer concentration with negative sign. Row 12 of the table

shows four studies of market competition, however, there was no evidence to identify any impact between competition in the market place and firm growth.

Overall, the fairly consistent finding is that rapidly growing firms have often made conscious decisions about market positioning. The introduction of new products is also important in the studies. Therefore, according to Storey's summary, marketing strategies can be associated both positively and negatively with firm growth, or even have no impact on firm growth. Further studies of these factors should be tested empirically in this study.

2.8.2.3.3. Technological Sophistication

Technological sophistication has been well recognized as a significant factor in affecting firm growth (Phillip and Kirchhoff, 1989). A highly technological firm was found to be likely to grow more rapidly than a firm with a low level of technical sophistication. Measures used by the five researchers identified in row 4 of the table do differ quite markedly. Three out of the five studies which included some measure of technological sophistication indicated that this was associated positively with more rapid growth of the firm. Therefore, it is hypothesised in this study that this variable is considered as an important indicator of business excellence as the key to business success.

2.8.2.3.4. Employee Training

Storey (1994) demonstrated that the firm undertaking employee training appeared to increase with the size of the firm. The first row of Table 2.3 appears to provide little evidence for the relationship between employee training and firm growth. Of the four studies reviewed, three were unable to identify any impact of employee training and only one indicated it to be associated positively with growing businesses. It is expected in this study to encourage employee training to a certain extent with a growing firm.

This research model is derived from Storey's (1994) internal growth process in small firms (Table 2.4) with a combination of three basic components: the characteristics of the entrepreneur, the nature of the firm and the business strategy. These three components may be considered as overlapping or intersecting. They cannot be considered as wholly independent influences. All the three components need to intersect if rapid growth is to be achieved. In addition to the extension and modification of Storey's theory, the external factors also play an important role in affecting small firm growth. These include the growth of demand for the external economic difficulty, government support, and the availability of financial support.

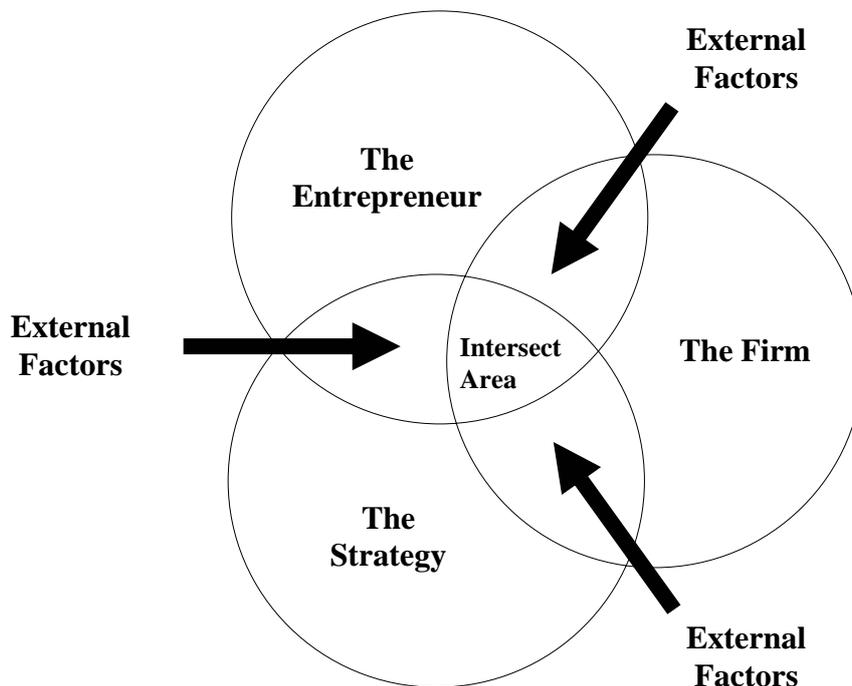
Table 2. 4 Storey's Internal Growth Process - Factors Influencing Growth in Small Firms *Source: Storey (1994)*

The entrepreneur/ resources	The firm	Strategy
1. Motivation	1. Age	1. Workforce training
2. Unemployment	2. Sector	2. Management training
3. Education	3. Legal form	3. External equity
4. Management experience	4. Location	4. Technological sophistication
5. Number of founders	5. Size	5. Market positioning
6. Prior self-employment	6. Ownership	6. Market adjustments
7. Family history		7. Planning
8. Social marginality		8. New products
9. Functional skills		9. Management recruitment
10. Training		10. State support
11. Age		11. Customer concentration
12. Prior business failure		12. Competition
13. Prior sector experience		13. Information and advice
14. Prior firm size experience		14. Exporting
15. Gender		

Figure 2.7 illustrates the basic three components – the entrepreneur, the firm and the strategies - acting as internal factors affecting the growth of SMEs directly with the influence of the external factors. All the internal factors need to combine

appropriately in order for the firm to achieve rapid growth. It is evident that the inner part of the intersecting area demonstrates the combination of the three factors that determine rapid business growth. It is also clear that the intersection of the three circles constitutes only a small proportion of the area of each of the individual components. They are the key factors determining the speed of business growth, or even no-growth if there is any factor left. However, the external economic factors may play a dominant role in affecting the business growth even though these three factors may be responsible for so much contribution to the company's performance. The failure rates of small firm growth are more likely to be high in a downturn economy. Therefore, it is only where all three factors combine with the support of a good economic background that a fast-growth firm is found.

Figure 2. 7 The Small Business Growth Framework (Revised)



2.8.3 PRINCIPAL HYPOTHESES

The paper tests the hypotheses which have been derived from the existing literature and deal with the characteristics of firms as well as owner-managers. The main hypothesis to be tested is that the characteristics of the owner-manager significantly affect growth performance in the establishment of small firms, through the management practices and business strategies they use. The emphasis is upon influences internal to the company together with external economic environmental factors that can explain small firm growth. Within the study, the objectives are translated into the following four broad hypotheses from which further specific hypotheses have also been developed:

H1: The characteristics of the owner-manager significantly affect the growth performance in established small firms.

H1a: The gender of the owner-manager significantly affects the growth performance in established small firms.

H1b: The age of the owner-manager significantly affects the growth performance in established small firms.

H1c: The qualification of the owner-manager significantly affects the growth performance in established small firms.

H1d: The unemployment status of the owner-manager significantly affects the growth performance in established small firms.

H1e: The entrepreneurial style of the owner-manager significantly affects the growth performance in established small firms.

H1f: The motivation for ownership of the owner-manager significantly affects the growth performance in established small firms.

H2: The nature of the firm significantly affects the growth performance in established small firms.

H2a: The size of firm significantly affects the growth performance in established small firms.

H2b: The age of firm significantly affects the growth performance in established small firms.

H2c: The legal status of the firm significantly affects the growth performance in established small firms.

H2d: The method of business acquired for a firm significantly affects the growth performance in established small firms.

H3: The company strategies significantly affect the growth performance in established small firms.

H3a: The planning strategies of the company significantly affect the growth performance in established small firms.

H3b: The marketing strategies of the company significantly affect the growth performance in established small firms.

H3c: The IT capacity of the company significantly affects the growth performance in established small firms.

H3d: The operating technology improvement of the company significantly affects the growth performance in established small firms.

H3e: The training program of the company significantly affects the growth performance in established small firms.

H4: The external factors significantly affect the growth performance in established small firms.

H4a: The economic difficulty factor significantly affects the growth performance in established small firms.

H4b: The support of government significantly affects the growth performance in established small firms.

2.8.4 THE PREFERRED MODEL EQUATION

The model equation has been developed to obtain a precise result. In the literature much emphasis is placed on size, sector and region as being important influences on firm growth (O'Farrell and Hitchens, 1988; Storey, 1994). The purpose of this study was to develop an approach which will bring together research in economics, organizational studies and business strategy to examine the expected relationships between the characteristics of entrepreneurs, business strategy, external economic factors, and small firm growth across a variety of small firms in the logistics industry in Hong Kong. The dependent variable for SME performance was the company employment rate increase (growth). A comprehensive set of independent variables was derived in this study for the determinants of small firm growth, and there was an overall assessment of their relative impact on growth.

Since the variables of Storey's model are so many that it was not feasible to test them all at the one time, some of the factors were chosen from the three key components to study in this research. It was hypothesized that the growth (GR) is significantly influenced by the following set of variables: Founder of business (EFB); prior management and sector experiences (EPE); motivation (EMF); unemployment push (EUP); firm age and size (FAS); legal structure (FLS); business planning (SBP); marketing strategy (SMS); technological sophistication (STS); employee training (SET); and external factors (EEF). To examine the possible relationships of these variables to growth, the following multiple regression model will be employed:

$$\mathbf{GR = \{EFB, EPE, EMF, EUP, FAS, FLS, SBP, SMS, STS, SET, EEF\}}$$

The variables (with expected sign in parenthesis) are listed below:

- GR = Firm growth (represented by annual growth of employment rate)
- EFB = Founder of business, including age, gender, education background, and numbers of founders (+ or -)
- EPE = Founder's prior sector and management experience (+ or -)
- EMF = Motivation programs (+ or -)

- EUP = Unemployment push (-)
- FAS = Firm age and size (+ or -)
- FLS = Firm's legal structure, defined as sole proprietorship, partnership and limited company (+)
- SBP = Business planning (+)
- SMS = Marketing strategies, such as niche marketing, costing, product differentiation, and innovation (+ or -)
- STS = Technological sophistication, represents advance technology and information technology (+)
- SET = Employee training (+)
- EEF = External factors, including economic environment and Government supports (+ or -)

2.8.5 DEFINITION OF VARIABLES

The definition incorporated into the study has been selected from Storey's growth model. Table 2.5 provides a detailed list of variables along with the operational definitions and coding. These will be of greater interest when the discussion leads to the issue of testing one variable while holding the other variables constant in order to control for the outcomes and their effects.

Table 2. 5 Definitions of Independent Variables

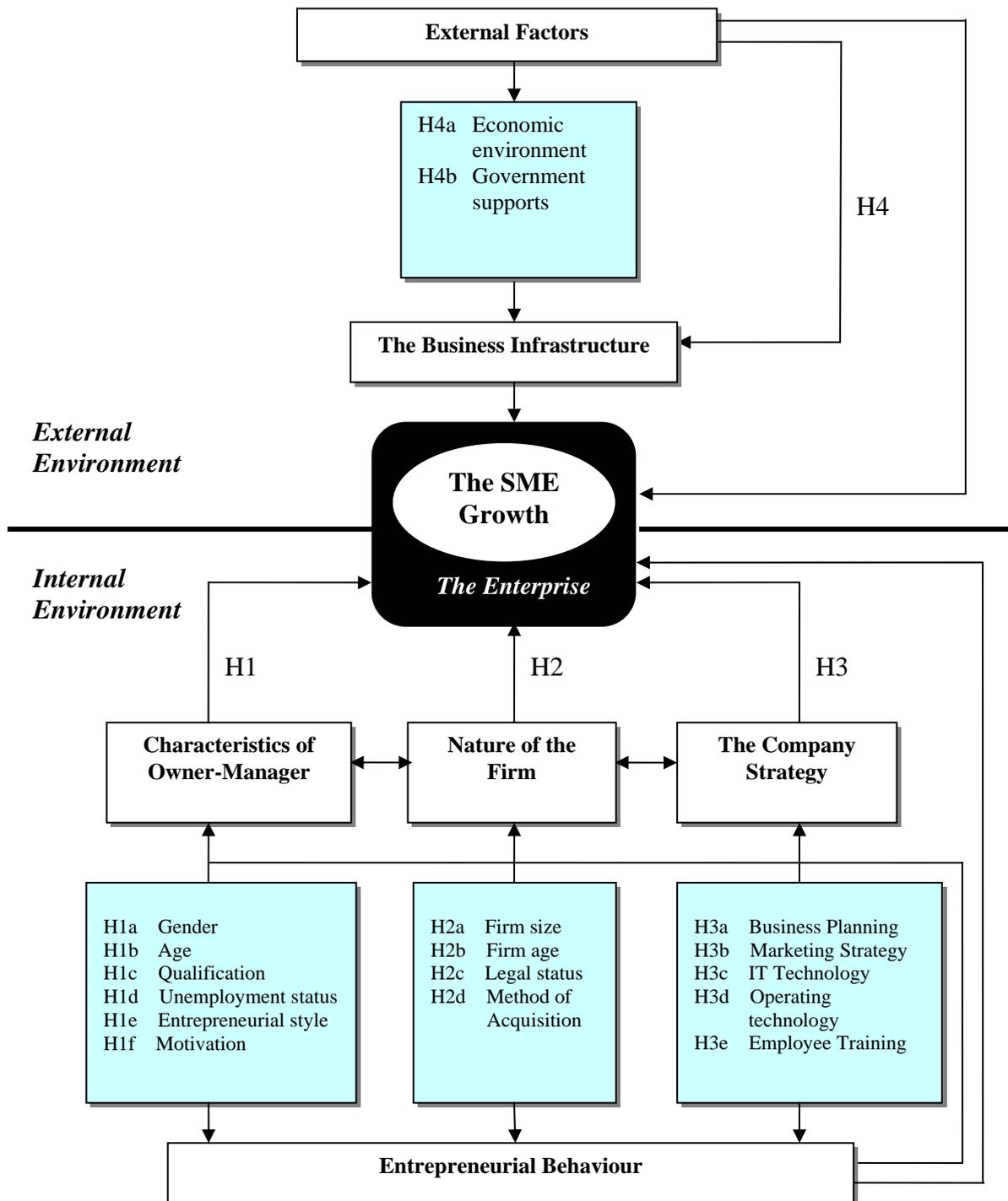
Independent Variables	Descriptions
Growth (Dependent Variable)	No. of employee increase per year
Age	Years of individual's age
Gender	1 if individual is male, 0 otherwise (female)
Education	Years of individual's education completed
No. of Founder	No. of founders currently working in the firm
Management Experience	1 if individual has management skills, 0 otherwise
Prior sector experience	1 if individual has prior sector experience, 0 otherwise
Motivation	Motivation for ownership in affecting business growth
Unemployment push	1 if individual is forced by unemployment push, 0 otherwise
Firm age	Years of firm age since the firm was founded, purchased, or acquired
Firm size	No of full-time or equivalent employees the firm has
Legal structure	Legal form of the business (Limited, Partnership, Sole proprietorship or Others); 1 if the firm is Limited, 0 otherwise (Unlimited)
Planning	1 if the firm has business plan, 0 otherwise
Marketing strategy	1 if the firm has marketing strategy, 0 otherwise
Technology	1 if the firm has advanced technology, 0 otherwise
Employee training	1 if the firm provides employee training, 0 otherwise
External economy	1 if the business is affected by economic difficulty, 0 otherwise
Government support	1 if the business is supported by government, 0 otherwise

2.8.6 THE RESEARCH MODEL OF SMALL FIRM GROWTH

Based on the comprehensive review of the literature by Storey (1994), the framework adopted for the quantitative analysis of small firm growth in the study has been identified. The broad categories of variables to be included in the survey were organized under the three interrelated components, which were examined to assess their relative impact on small firm growth. Since the research was conducted during the economic downturn after the Asian Economic Crisis, the external economic

factor was altered to reflect the situation closely related to the real effects. The revised model for this study is shown in Figure 2.8.

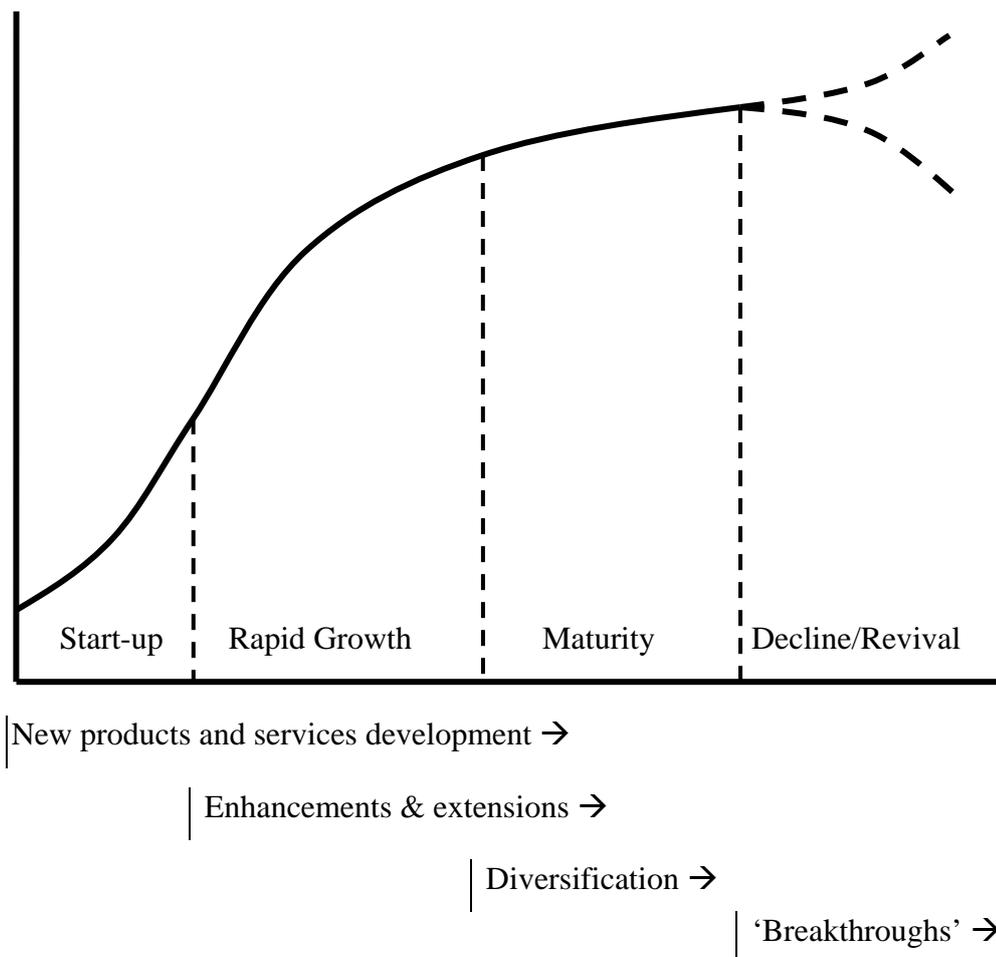
Figure 2. 8 The Research Model



2.8.7 MEASURES OF GROWTH

Small firm growth is most often described as a ‘process’. Development of the firm is then said to proceed through stages that parallel those of human development: infancy, growth, rapid growth, maturity, and decline (Reynolds, 1991; Storey, 1994). An organization life cycle model (Figure 2.9) has seen the firm’s growth choices as paralleling its life cycle of start-up, rapid growth, maturity, and either renewal or decline stages.

Figure 2.9 *The Firm Growth from an Organizational Life Cycle Perspective (Revised)* Source: McCann (1991)



Rapid growth in the early stage of the organization has been seen as coming essentially from sources of innovation, lower-cost inputs, product differentiation, and close relationship. As a firm's core products and market begin to mature, however, it confronts the choice of either diversifying, thereby adding growth opportunities or focusing continuously on and competing with its own enhancement to prolong or revive its core product (Reynolds, 1991; Storey, 1994). A unique strategy still involves several growth choices. It is also in the maturity stage that an innovation strategy actively begins to promote diversification. Strategic decisions and market focus are imposed to extend the firm's life. Generating new product breakthrough for entry into new businesses continuously extends its life. Firms in the later stage have begun to reap the benefits of growth and have attained higher profitability levels. During the last stage, firms may decline or be revived depending on the success of product diversification and breakthroughs.

To evaluate the performance of small firm growth, Churchill and Lewis (1983) proposed a five-stage model of growth for successful small firms as follows:

- Stage 1: Existence – the owner has a clear business idea and closely manages all processes with a minimum of staff, investment is made to carry out operational activities.
- Stage 2: Survival – the business focuses on managing operational activities with a simple organizational structure, funds are used to fulfil orders and daily operations.
- Stage 3: Success – (a) Disengagement – the firm is profitable and has a reasonable customer base; (b) Growth – the owner has a clear strategy for growth, investment is made in additional resources to support this growth, planning and strategies are involved.
- Stage 4: Take-off – the owner still exercises power, but has functional managers directing planning and business complexity, growth is likely to be rapid and cash flow is likely to be an issue as requirements for resources increase.

Stage 5: Maturity – a move to a corporate style business where ownership and management are distinct, the danger is that there may be little innovation and change and the firm may ossify.

Storey (1994) was critical of stages of growth models being applied to small firms. Such stage theory assumes that the movements from one stage to another are 'triggered' by a point of crisis. This idea has essentially remained an untested hypothesis, or possibly non-testable. Many firms do not move beyond Stage 1. As there is no desire to process, which implies movement to the next stage as the result of a crisis or other driver, it is irrelevant. Instead, Storey proposes that small firm growth is achieved by a combination of the characteristics of the entrepreneur, the firm, and its strategies.

As discussed previously, there is no general agreement on how firm size should be measured and therefore there is a wide variation in the growth variables used by researchers (O'Farrell and Hitchens, 1988). The distinction between 'big' and 'small' is arbitrary (Storey, 1982), and firm size varies according to its context. A firm's size may be measured according to its sales and revenues, profits, by the amount of human and physical capital it employs, market share, or return on investment (ROI). Other definitions of SME may be based on total employment including or excluding outworkers, number of customers, total sales, or energy consumption. SMEs are extremely reluctant to supply accurate accounting information to researchers.

However, for studies equating sales growth with continued entrepreneurship, reliance on a single measure of growth, such as average annual sales growth rate, assumes that small firm performance is best measured exclusively by its growth. This approach is theoretically partially correct since the use of the measure of sales growth alone will lead to the neglect of another underlying and equally important dimension such as employment rate. This is a weakness reflecting the level of outcome of ambiguity and uncertainty.

Only some analysis of the profitability of firms is possible, however, because of the difficulties of measuring profits in small firms. It is impossible to describe the level

of profitability with accuracy. The measure of profitability is pre-tax profits as a percentage of turnover. Since some of the firms are unlimited companies and some are limited companies, it is not easy to check their real profits figures given by managers against the annual accounts. At the same time, low profit firms may not represent low firm growth since they may put a lot of their money into investment. Growth in profitability is considered as a weak proxy for efficiency. However, high employment rates can simply represent the companies which intend to grow in the future (Storey, 1994).

From a policy perspective, Smallbone et al. (1995) found that there was a strong link between employment growth and real turnover growth, which meant that job generation was particularly concentrated in the high growth firms. The implication is that the best way of measuring firm growth is to focus on the increasing of employment generation. Maximizing the contribution of SMEs to employment generation over an extended period of time is aimed at mobilizing business growth potential rather than making any policy assistance conditional on other indicators growth. In this way employment generation is compatible with the development of competitive businesses and competitive economies. This is emphasized further by the fact that high growth firms are increasing their labour productivity at the same time as they are increasing jobs. Employment rate can reflect the real growth of a firm which acts as a dominant variable in relation to entrepreneurial success.

This research tends to use employment rate as the indicator to reflect the firm size because aggregate employment is a key variable with which policy makers are concerned and because the measurement of this variable is relatively simple (Barkham et al., 1996). At the same time, the measurement of other variables poses difficulties. Measurement of firm growth is a challenging issue, particularly by using financial data of small firms which may even have misleading results (Cooper and Artz, 1988). The least problematic of the various possible measures of growth is employment growth rate; it is much easier to measure and is always recorded by the owner-manager. If, for reasons of policy or other research factors, a measure of resource utilization is required, employment is to be preferred to assets because accounting conventions prevent the accurate measurement of growth rate (Barkham et al., 1996). This growth can also imply that a satisfactory level of performance is

being achieved. In this study employment growth rate is taken as the principle measure of company size, and hence of company growth. However, total assets turn, total revenue and profit are also to be measured as subsidiary mainly to consolidate the validity of the research outcome.

Accordingly, a survey was designed for this study to elicit responses about determinants which maximize the firm's employment rate. Since this is a descriptive survey, participants were presented with a range of factors that have been found to contribute to business growth in previous studies, and were required to rate each determinant in terms of actual usage as part of the business strategy of the firm. Determinants that were investigated included management practices, personal and motivation practices principles, and planning and marketing strategy. Other variables included demographic factors such as owner-manager's age, sex, and education background and experience, firm size, age, and legal form, and commitment to staff training. In addition, variables related to firm growth were measured including business growth and financial performance. Many of these variables have been found to be factors contributing to success in small business in previous studies reported in the literature.

2.8.8 FIRM SIZE AND FIRM GROWTH - GIBRAT'S LAW

Economic theory makes little contribution to the pursuit of small firm growth rates. Extensive empirical literature on theory of the firm in economics is widely recognised; linkages between this theory and the reality of business growth or decline are controversially crude and contradictory. The relationship between the growth and size of firms has frequently been a major issue in the theoretical as well as in the empirical literature about the formation and growth of firms. Gibrat's Law of Proportionate Growth (Gibrat, 1931) implies a relationship between firm size and firm growth. This law holds that firm growth is independent of firm size. Small and large firms will on average have the same rates of growth. The growth of firms is in proportion to their size, and all firm growth occurs at the same rate over an interval of time, regardless of the initial size. The size distributions of firms are highly skewed, and log-normal distribution is commonly used to approximate the size

distribution of firms. Each firm has the same distribution of growth possibilities, and each firm's actual growth is determined by random sampling from that distribution.

The empirically derived and widely acknowledged life-cycle theory of the firm is not an economic theory at all, since there is no justification for such a cycle in general equilibrium economics. Even though the role of economic theory has received a boost from a typology of economic development based on theory of new firm formation and growth recently developed by Wennekers and Thurik (1999), an empirically testable theory remains elusive. Chow and Fung (1996) stated that the importance of Gibrat's Law in studying firm growth was as follows:

- 1 The validity of Gibrat's Law, which implies a relationship between firm size and firm growth, provides important information in understanding the organizational dynamics of enterprises. For example, in organizational ecology, size distribution is an important element of the competitive process in any market economy.
- 2 The validity of Gibrat's Law has implications for industrial policies, particularly for transition economies in developing countries. For example, if Gibrat's Law holds, firm size is not a concern in designing policy programs to promote business development. However, if Gibrat's Law does not hold, the government can possibly use policy to exploit the situation so as to achieve its development targets.

According to Mansfield (1962), Gibrat's Law may be tested in three different versions. It may in fact hold:

- 1 For all firms within a given industry in the considered time interval including also firms which did not survive;
- 2 Only for surviving firms in the considered period;
- 3 Only for firms large enough to reach the minimum efficient scale (MES).

Empirical findings proved that firm growth was roughly independent of firm size in which Gibrat's Law was taken as a desirable implication. Jovanovic (1982) studied

cases of his model of firm learning in which Gibrat's Law held in the limit for firm growth was independent of firm size for mature firms or for firms that entered the industry at the same time. This theory emphasizes managerial efficiency and learning by doing as the key factors determining a firm's growth dynamics. Efficient firms grow and survive, while inefficient firms decline and fail. Firm growth and survival are linked to the firm's size, age and initial efficiency, implying that younger firms tend to grow faster than older firms. Lucas's (1967) capital adjustment theory found that the time series of firm employment, capital, and output obeyed Gibrat's Law for the complete size distribution of firms. The evidence reported that there were strong departures from Gibrat's Law. Simon and Bonini (1958) predicted that firm growth was also independent of firm size for firms that were larger than the level of minimum efficient size. Most older firms are presumably able to reach this level; otherwise, those firms could not have survived for longer periods of time.

Evidence has refuted this theory, although no alternative theories have been developed (Evan, 1987). This proportionate growth for firms is affected by the minimum efficient size level. Equal proportional growth does not hold. Smaller and younger firms grow faster than larger and older ones. Singh and Whittington (1975) found a positive relationship between firm size and growth rate, with larger firms having higher growth rates than smaller firms. However, Evan (1987) and Storey et al. (1987) found that firm growth and size of the firm were correlated negatively, indicating that smaller firms had higher and more variable growth rates than larger firms, which rejected Gibrat's Law at population level of employment in the U.S. and the U.K.

Chow and Fung (1996) presented an empirical study that investigated the relationship between the size of domestic enterprises including state-owned enterprises, collective-owned enterprise, and other enterprises and their firm growth by using Gibrat's Law. The results suggested that Gibrat's Law did not hold in the study. Firm size and growth were correlated, but negatively associated, that is the larger the organization, the lower the growth rate. Small firms grow faster than larger counterparts in terms of employment and output. While many studies have found that Gibrat's Law holds, most of the previous studies have used its theory as a basis to test the relationship between firm growth and size. Thus, it is well known that firm

growth decrease with firm size for smaller firms, no matter whether the evidence above has shown the complete size distribution of firms in homogeneous product industries.

2.8.9 DISCREPANCY THEORY

There is a well-established body of literature in industrial and organizational psychology addressing the determinants of small firm growth. One of these explanations suggests that firm growth performance is determined, in part, by the 'gap' between an individual's personal standards of comparison and actual experiences. These cognitive comparison processes are referred to as discrepancy theory.

Extensive previous research found that most of the studies investigating the existence of discrepancy theory reported finding significant relationships between the firm performance and individuals' characteristics, and some types of perceived 'gap' between what they currently have and what they want to have. These findings provide strong support for the discrepancy theory explanations of the determinants of small firm growth.

Michalos (1986), in his extensive literature review, found that most of the studies investigated the existence of this gap by using the discrepancy theory. There were at least six distinct types of 'discrepancies' identified in previous work. The terminologies used to describe different types have varied in different studies. A framework for understanding the individual elements was developed based on the discrepancy theory.

Michalos (1986) identified two main types of discrepancy theory in his research: One was the 'goal-achievement gap theory', and another one was the 'expectation-reality gap theory'. 'Goal-achievement gap theory' addresses the discrepancies between the initial goals of the individual and the actual outcomes which are realized, whereas, 'expectation-reality gap theory' addresses the perceived gap between the situation that is achieved now, and what the individual expected it to be. This paper is

concerned with small firm growth; the perceived factors were expected as the determinants in affecting its performance. We put these two theories into practice to clarify the differences, by matching the initial estimation against the specific outcome, or by matching expectation against its real situation, these coming to a result of either positive or negative affection.

2.9. CONCLUSION

Since entrepreneurship and firm growth are dynamic phenomena, it is critical that empirical research is conducted within a time-series framework where a proper account is taken of possible casual relationships. This, of course, implies that more work is needed to develop methodology with a capacity to highlight their casual relationships. As a general conclusion, a number of important questions regarding the relationship between entrepreneurship and firm growth were developed.

Based on this comprehensive review of the literature, the framework adopted for the quantitative analysis of small firm growth in this study identified four key variables which were examined to assess their relative impact on small firm growth. These variables included characteristics of the owner-manger, the nature of the firm, the business strategies and the external economic and government factors, and the study examined their relationship with firm growth. Based on Storey's (1994) small business growth framework, a comprehensive research model for this study was developed.

The next chapter will present a detailed discussion of the research model, which includes all the factors, variables and links. This will then be followed by the discussion of the hypotheses and the implications.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This Chapter presents an overview of the methodology used in the research and the process in relation to the research design and the data collection. The theory in this study is to provide the rationale and theoretical justification for the methods that were employed. It encompasses the discussion of the research paradigm in terms of the ontological and epistemological perspectives, the quantitative/qualitative approaches and the various research methods. A number of writers (Guba, 1990; Guba and Lincoln, 1994) have outlined the above concepts and have provided a research infrastructure from which researchers may model future research designs, including the research design of this study. The purpose of this Chapter is to present the methodology used to test the hypotheses. This chapter addresses the development of an appropriate procedure for the research including a description of the process used to develop the survey questionnaire and the final sample selection.

Although the development of an appropriate methodology of the study of small firm growth involved a consideration of the broad, alternatively qualitative (inductive) or quantitative (deductive) approaches, the research undertaken in this study will be discussed in the context of the above theory about research, specifically in relation to the research design and the data collection process. From a research perspective, the field of strategic management seeks to explain a variety of complex issues and organizational phenomena. Many of the research methodologies reflect the complexity. Hitt et al. (1998) argued that different types of research methods could continue to be used by strategic researchers depending on the research questions under study.

However, as the development of the strategic management field progressed, economics heavily influenced the research agenda, shifting methodologies from qualitative, inductive case-based studies to positivist, deductive approaches, which helped elevate the field to a more rigorous, scientific academic discipline (Hoskisson et al., 1999). The adoption of a quantitative approach usually requires a clear understanding of the type of evidence required, and how to collect and analyze that evidence within a well-defined theoretical framework. A quantitative approach was taken for the paradigm selected for this research.

The perspective of the researcher will also be provided in the context of professional excellence towards research as well as ethical considerations. The criteria surrounding the quality of the research will also be discussed.

3.2 THE CONCEPTUAL DEFINITION

Researchers use research methodology, a combination of a continuing process, methods and tools for conducting research. Concepts such as methodology, paradigm, and methods are used in a variety of ways. To ensure a standardized interpretation, terms considered essential for this research are hereafter defined.

3.2.1. METHODOLOGY

The term methodology is used to describe the ‘umbrella’ or ‘collective’ of concepts that altogether combine to form a research rigor that is capable of being followed by another person not involved in the research to determine the value of the research (Burrell and Morgan, 1979). Table 3.1 illustrate two of the more prevalent choices a researcher may take into research.

Table 3. 1 Research Methodology Source: *Denzin and Lincoln (1994)*

		Paradigm	
Methodology	Ontology:	Positivist	Constructivist
	Epistemology:	Empirical	Interpretivist
	Approach: (Strategy)	Quantitative	Qualitative
	Methods:	Collection and Analysis Methods	

Traditionally, research conducted utilising the positivist paradigm has involved statistical sampling techniques to identify a representative sample of a much larger population. Part of the rigor for the positivist study is to establish the degree of representation of the sample to the population so that basic assumptions could be made. The positivist paradigm involves a quantitative approach which results in a measurement or counting process. Theoretical propositions may be evaluated pursuant to empirical data (Zikmund, 1997). Given the research objective and questions, it will be argued that the research methodology lends itself to a positivist ontology, which in turn dictates an empirical epistemology, and a quantitative approach (Lincoln and Guba, 1994).

With respect to the methodological choice for this study, a quantitative, positivistic approach was used. Positivistic research is based on three principles. The first principle is finding facts, that is, if one assumes that there are underlying laws and principles that govern how things work in the world, then it is the task of the researcher to discover what these laws and principles are. The second principle is documenting facts, for instance, once the laws and principles are discovered, the researcher documents and describes the facts. The third principle is the use of scientific methods, which means that discovery is through scientifically grounded study. The advantage of the scientific method is that it “allows researchers to test their hypotheses and rely on objective measures (data) to support their findings” (Wicks and Freeman, 1998). Such an approach is used to avoid speculation and bias. Furthermore, through the use of quantitative, scientific methods, data are collected which can be replicated for verification purposes in future studies. Replication of

results is critical for theory testing (Flew, 1979), thus, the positivistic approach offers opportunity for testing the determinants on SME growth.

3.2.2. PARADIGM

3.2.2.1. The Paradigm

Paradigm is defined as the basic belief system on world view that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways (Denzin and Lincoln, 1994). The two main research paradigms are presented into two choices – the qualitative and quantitative – that have roots since 20th century philosophical thinking. The quantitative is termed the traditional, the positivist, the experimental, or the empiricist paradigm. The qualitative paradigm is termed the constructivist approach or naturalistic, the interpretative approach, or the post-positivist or post-modern perspective (Creswell, 1994).

To understand the assumptions of these two paradigms, several dimensions are contrasted, and these contrasts highlight the nature of alternative strategies (Creswell, 1994). Table 3.2 shows the assumptions of quantitative and qualitative paradigms based on ontological, epistemological, axiological, rhetorical, and methodological approaches. It is important to understand these assumptions because they can provide direction for designing the research methodology.

Table 3. 2 Quantitative and Qualitative Paradigm Assumptions

Source: Creswell (1994)

Assumption	Question	Quantitative	Qualitative
Ontological Assumption	What is the nature of reality?	Reality is objective and singular, apart from the researcher.	Reality is subjective and multiple as seen by participants in a study.
Epistemological Assumption	What is the relationship of the researcher to that researched?	Researcher is independent from that being researched.	Researcher interacts with that being researched
Axiological Assumption	What is the role of values?	Value-free and unbiased	Value-laden and biased
Rhetorical Assumption	What is the language of research?	Formal, Based on set definitions, Impersonal voice, Use of accepted quantitative words	Informal, Evolving decisions, Personal voice, Accepted qualitative words,
Methodological Assumption	What is the process of research?	Deductive process, Cause and effect, Static design-categories isolated before study, Context-free, Generalizations leading to prediction, explanation, and understanding, Accurate and reliable through validity and reliability	Inductive process, Mutual simultaneous shaping of factors, Emerging design-categories identified during research process, Context-bound, Patterns, theories developed for understanding, Accurate and reliable through verification

3.2.2.2. Ontology

Ontology, meaning 'nature of reality', refers to the theory of existence. The fundamental ontological question is concerned with 'what' exists in essence. To answer this question is basically to understand what can be known about it. Only those questions that relate to the matter of 'real' existence and 'real' action are admissible.

The ontological question is: What is the form and nature of reality and, therefore, what is there that can be known about it? For example, if a 'real' world is assumed, then what can be known about it is 'how things really are', and 'how things really work'. Then only those questions that relate to matters of 'real' existence, and 'real' action are admissible; other questions, such as those concerning matters of aesthetic or moral significance, fall outside the realm of legitimate scientific inquiry (Denzin and Lincoln, 1994).

3.2.2.3. Epistemology

Epistemology is the next consideration. Epistemology refers to the branch of philosophy concerned with 'nature of knowing'. It refers to the theory of knowledge. The fundamental epistemological question is concerned with 'how' we know or how things really are. The answer to this question determines the kind of logic we use to derive knowledge (Guba and Lincoln, 1994). Ontology is the reality that researchers investigate; epistemology is the relationship between that reality and the researcher. The epistemological issue for the research simply describes the nature of the relationship between the researcher and the subjects of the research.

There are two approaches to consider, namely the 'empirical' and 'interpretivist'. The empirical approach deals with objective facts to determine solid rules and theories that may be replicated in various scenarios (Hussey and Hussey, 1997). The interpretivist approach, however, refers to the subjective interpretation of perspectives according to context (Guba, 1994). As the ontology determines the epistemological approach, the choice is empirical for this research.

The epistemological question: What is the nature of the relationship between the knower or would-be, and what can be known? The answer that can be given to this question is constrained by the answer already given to the ontological question; that is, not just any relationship can now be postulated. So if, for example, a 'real' reality is assumed, then the posture of the knower must be one of objective detachment or

value freedom in order to be able to discover ‘how things really are’, and ‘how things really work’ (Denzin and Lincoln, 1994).

Table 3.3 outlines basic belief systems in terms of the ontological, epistemological and methodological paradigms.

Table 3. 3 Basic Beliefs (Metaphysics) of Alternative Inquiry Paradigms

Source: Denzin and Lincoln (1994)

Item	Positivism	Postpositivism	Critical theory et al	Constructivism
Ontology	Naïve realism – ‘real’ reality but apprehendable	Critical realism – ‘real’ reality but only imperfectly and probabilistically apprehendable	Historical realism – virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallized over time	Relativism – local and specific constructed realities
Epistemology	Dualist/ objectivist; findings true	Modified dualist/ objectivist; critical tradition/ community; findings probably true	Transactional/ subjectivist; value mediated findings	Transactional/ subjectivist; created findings
methodology	Experimental/ manipulative; verification of hypotheses; chiefly quantitative methods	Modified experimental/ manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods	Dialogic/ dialectical	Permeneutical/ dialectical

3.2.2.4. Quantitative Paradigm

Methodology is developed from ontology and epistemology, considering what can be found out. Research can take either a qualitative or a quantitative approach. Qualitative research is concerned with understanding human behaviour and yields descriptive data, however quantitative research, by contrast, takes on a positivist approach and focuses on facts or causes with little regard for the subjective states of

individuals. Given the particular a priori research focus of this study, a methodological approach was required which also allowed scope for the development of a fuller understanding of the pertinent phenomena. Hence it was important to elect the form of data according to the task at hand, which ranged from the generation of suitable theory under a qualitative approach to verification under a quantitative approach.

The methodological question was: How can the inquirer (would-be knower) go about finding out whatever he or she believes can be known? Again, the answer that can be given to this question is constrained by answers already given to the first two questions; that is, not just any methodology is appropriate. For example, a 'real' reality pursued by an 'objective' inquirer mandates control of possible confounding factors, whether the methods are qualitative (say, observational) or quantitative (say, analysis of covariance). The methodological question cannot be reduced to a question of methods; methods must be fitted to a predetermined methodology (Denzin and Lincoln, 1994).

Evaluation research is dominated by the largely unquestioned, natural science paradigm of hypothetical-deductive methodology. This dominant paradigm assumes quantitative measurement, experimental design and multivariate, parametric statistical analysis to be the epitome of good science. This basic model for conducting evaluation research comes from the tradition of experimentation in agriculture, which gives us many of the basic statistical and experimental techniques most widely used in evaluation research (Patton, 1980). The quantitative paradigm has positivist objectives. It is an outcome-oriented approach and focuses on natural science worldview. Positivism can be described as a research philosophy assuming that phenomena being studied have a stable reality measurable from the outside by an objective observer (Denzin and Lincoln, 1994).

Most prior research into small firms has its roots in positivist thinking. Without seeking to devalue such prior research, it is suggested that such approaches may not yield a rich understanding of the key issues affecting small firm growth. Positivism, as followed in the traditional scientific route to developing knowledge, is manifested in the processes of proving or disproving hypotheses with quantitative measurement

of variables. In fact, most of the previous business research has been qualitative, case oriented and/or anecdotal (Morris et al., 1996), however, less similar research has been conducted empirically. For this research a quantitative approach was chosen, based on a positivist paradigm. The aim was to achieve hypotheses testing through application of a research model.

The key advantage of the scientific method is that it “allows researchers to test their hypotheses and rely on objective measures (data) to support their findings” (Wicks and Freeman, 1998). Through the use of quantitative, scientific methods, data are generated that can then be replicated for verification purposes in future studies. Replication of results is critical for theory testing (Rudner, 1966; Flew, 1979). Thus, the positivistic approach offers opportunity for testing the main prescription of the small firm growth.

Applying this theory to social science, this study was based on an ontological and epistemological assumption, under a positivist methodology. Hypothesis definition is required in positivist research, while constructivist research, on the other hand, seeks to prove facts by generating evidence. This relationship between researcher and respondent reflects the ontological and epistemological assumptions on which a given study is based (Olsen, 1999).

According to the theory, the ontology for this study (determinants of SME growth) is defined as positivist, viewed as a reality-independent research study, based on social constructs and quantitative data. The epistemology was explanatory, as the study aimed to explain reality based on positivist ontology. The methodology was a quantitative approach, clearly based on a positivist paradigm. The method of this study was to undertake hypotheses testing through the application of research modelling techniques.

This empirical study investigated the characteristics of growth in a cohort of SMEs during a six-year period of economic recession (1998-2003). The SMEs were operated by owner-managers who had experienced various spells of unemployment. In the initial phase, at least, these owner-managers can be thought of as making the transition from unemployment to self-employment. The research used substantial in-

depth questionnaires administered to the small firm entrepreneurs, using an adapted methodology to manage the quantitative data amassed (Curran and Blackburn, 2001). To test the hypotheses properly, a detailed survey of established small firms was undertaken. This provided data on the range of variables required to construct a comprehensive univariate/multivariate model of SME growth. As Storey (1994) argued, the construction of this model was the most appropriate process to investigate SME growth. The univariate analysis was constructed to compare the effects of independent variables (determinants) on dependent variables (SME growth) to describe and understand the sample. Multivariate regression analysis was used to test the significance of the impact of each influence on growth independently of other influences.

Most western researchers have focused their studies on SME start up or failure. There is a lack of systematic data on SMEs, particularly contributing to understanding of how these business owner-mangers think and operate. This under researched domain can be largely attributed to the difficulty researchers have in gaining access to large samples of SMEs (Lau, 2001). Previous research on business activity in Hong Kong has usually relied on published government statistical reports to gain insights into the business environment. Not many large-scale surveys of private business owner-mangers have, as yet, been conducted or studied.

3.3 RESEARCH DESIGN

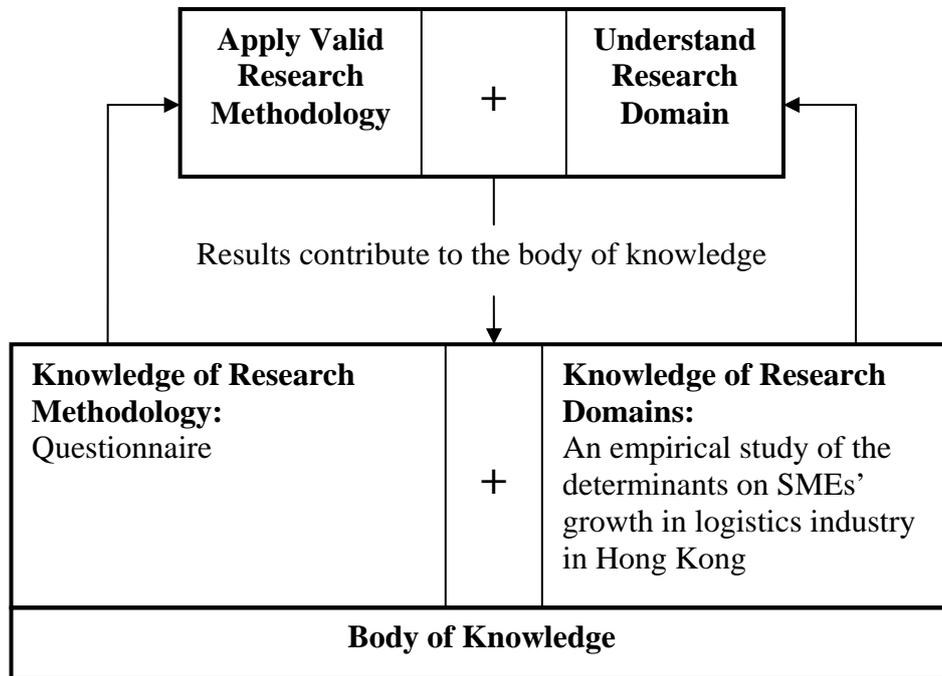
The primary objective of this research is to assess the effects of different factors on firm growth through a series of theoretically justified research hypotheses. To test the posited hypotheses, a cross-sectional field study was used. Kerlinger (1992) suggested that field studies were non-experimental scientific inquiries designed to discover the relationships among variables in real social structures, such as communities, institutions, and organizations. Cross-sectional, specific sample survey field studies were particularly useful for gaining a representation of the reality of a social structure utilizing a single administration research instrument. A number of advantages of sample survey research are identified below.

First, sample survey research allows the researcher to gather a sizeable amount of information from a relatively large sample (Kerlinger, 1992). Second, it can maximize the representative sampling of population units studied and therefore improve the generalizability of the results (Scandura and Williams, 2000). Third, compared to experimental research, it is strong in realisation, which can be very important in studying dynamic, real-life business situations (Kerlinger, 1992). Finally, information obtained in sample survey research, even subjective measures of firm performance, is often very accurate, because the instrument is designed specifically to address the research questions (Dess and Robinson, 1984; Slater, 1995).

3.3.1. THE RESEARCH PROCESS

A framework for the research, illustrated in the last Chapter, was based on a relationship between a body of knowledge (i.e. research domains and research methodologies) and a research process. The research domain (i.e. the subject matter of the study) of this study was to examine empirically the determinants of SME growth in the logistics industry in Hong Kong. The methodology employed a quantitative approach. The research process incorporated the understanding of the research domains, asking meaningful research questions and applying valid research methodology for these questions (Curran and Blackburn, 2001). Results from a research project contributed to the body of knowledge by promoting clear understanding and enhancing knowledge in a given research domain (Nunamaker et al., 1991). The collection of data for this research was primary derived from sending questionnaires. All the derived data were analyzed using statistical techniques in order to detect answers to the identified research questions. Figure 3.1 outlines the practicalities of the research process.

Figure 3. 1 A Research Process Source: Nunamaker et al. (1991)



3.3.2. PARTICIPANTS

Small business has been defined here as people who have created or operated a new business organization (Begley and Boyd, 1987; Brockhaus, 1987; Dollinger, 1985). Participants were recruited from entrepreneurship and small business in Hong Kong SAR. They were asked to volunteer for a study involving the discussion of specific ways they developed their businesses. To qualify for the study, both the Bolton Committee's and Hong Kong SME Centre's definitions were used. According to the Bolton Committee's (1971) suggestion, owner-managers had to be genuinely independent, not a division, subsidiary, or franchise of a big corporation. It was also specified that the owner-managers should take active part in their companies' management. The Hong Kong SME Centre (2000) defined small firms as manufacturing enterprises with fewer than 100 employees and non-manufacturing enterprises with fewer than 50 employees. In addition, these firms were established

before 2000 that they had been in existence for at least three years before the start of the study period.

Furthermore, participants were assured that their responses to the questionnaire would be held confidential by the researcher, that their responses would only be presented in aggregate, that no single firm's results would be highlighted, and that firm demographics would be used for comparative purposes only. In order to encourage a high response rate, the questionnaires were kept simple, to the point, and easy to read (Frazer and Lawley, 2000). Participants were told that they would be given written summaries of the findings as an incentive, but that only general findings whose source could not be identified are used in the feedback. In the selection of participants, an equality approach was taken, to ensure there was no gender bias, age bias, or occupation and education background bias.

3.3.3. SURVEY INSTRUMENTATION

The approach used here with regard to investigating determinants of small firm growth was explicitly multi-dimensional utilising a wide-range of instruments to tap different aspects of variables. Instruments were developed and validated on 'normal' populations, and were based on an agreed underlying theoretical model. As the purpose of this study was to investigate the determinants on small firm growth, the data were analyzed using discriminated analysis. The attraction of this technique was that it tested the accuracy by which the data classified specified groupings in the logistics industry and it provided a quantitative statement of the degree by which each variable contributed to the overall classification (Punj and Stewart, 1983).

3.3.3.1. Questionnaire Design

The survey instrument used was a self-completed questionnaire with structured questions, which was the main source of data in this study. A questionnaire is a tool for collecting data beyond the physical vision of an observer in order to detect deep data within minds, attitudes, feelings, and opinions of respondents. A questionnaire

differed from an interview, as it is a more impersonal probe. A research survey is only as good as the questions it asks. Questionnaire design, therefore, is one of the most critical stages in the research process (Zikmund, 2000). Therefore, good questionnaire design should focus on three areas (Sekaran, 1992): (1) the questionnaire should be short, clear, simple language, closed questions with alternative answers and scrutinized, (2) it should concern with reliability and validity of the data to be analyzed, (3) the appearance should be attractive and neat with appropriate instruction and a well-arrayed set of questions and response alternatives.

The advantages of self-completed questionnaires as research (Forsgren, 1989) are:

1. They are relatively cheap compared with other types of data collection;
2. Information can be obtained very quickly without interviewer biases and variability inherent in face-to-face techniques;
3. Anonymity is assured leading to increasing chances of more responses;
4. Respondents have time to think about the answers before completing questionnaires;
5. They can be widely sent out to many respondents at the same time;
6. Data are easily analyzed and interpreted due to uniformity.

This study used a self-administered, structured questionnaire, employing both closed and open-ended questionnaires. Closed questionnaires were used to facilitate respondents' understanding of topics of concern, to remind them of the points that they might not think about, and to involve many respondents within a limited time. On the other hand, opened-ended questionnaires were used to gain understanding and to capture the points of view of respondents without predetermining those points of view through prior selection of questionnaire categories.

3.3.3.2. Questionnaire Contents

The questionnaire was developed to measure the variables of interest in English, with a Chinese version attached. Since there was no official small business committee in the logistics industry in Hong Kong, the questionnaires were sent out both by mail

and email in order to maximizing sufficient response. Respondents were asked to indicate their present position with their companies, to identify who could be described as the dominant decision-maker within the firm. The questionnaire was divided into six main sections:

Section 1: Owner-manager characteristics

This section of the questionnaire sought demographic information on the background characteristics of owner-managers in terms of gender, age, educational level and qualification, prior sector and management experience, and employment status.

Section 2: Nature of the Firm

Questions in this section were similar to the above section focusing on collecting the data of the characteristics of company background. This section particularly included details of firm's business types, ownership, legal structure, years of the business, and the number of owners.

Section 3: Measures of Growth

This section sought information on the growth of employment, turnover, total assets and profits from each firm. Although the questionnaire asked for annual data on these variables, the analysis was mainly focused on measuring employment rate as it was the only possible way to obtain the accurate data. In particular, financial data relating to profits or assets were not easily obtained from all the survey firms as the result of some owner-managers deciding not to release the real figures that they saw as sensitive information about their firm. However, they were encouraged to provide estimate figures to ensure the validity of the results.

Section 4: Motivation and planning of decision-maker

This section was designed to measure the owner-manager's motivation to pursue growth in the firm, and the decision-maker's planning and objectives over the period of the study. This has

traditionally been a difficulty in studying the behaviour of the individual. Respondents recorded their motivational behaviour over the previous six years, as well as the extent to which this affected firm growth.

Section 5: Business development activities

This section of the questionnaire contained a number of questions designed to probe in detail the nature of the business development activities undertaken by the owner-manager. Respondents were asked to provide information the firm had undertaken in terms of business and marketing strategies and competitive positioning in the marketplace.

Section 6: External factors

As the study was undertaken in the period of economic difficulty after the Asian crisis, this section focused on how the economic situation directly or indirectly affected the growth of SMEs, and the extent to which this factor has hindered the effects on firm growth. Government assistance also played an important role in assisting SMEs to survive, particularly in the study period. It was of interest to explore to what extent this factor might help the performance of the firm in the specified six-year period.

3.3.3.3. Self-reported Questionnaire

In designing the questionnaire, attention was given to making it visually attractive and user friendly. An uncluttered and user-friendly format was used. Frazer and Lawley (2000) have argued that questionnaires should be simple, to the point, and easy to read. Questions were grouped so that a whole section would have the same form of response; this enabled differences in ways of answering to be kept small enough to avoid confusion, while large enough to ensure variety. Reverse wording of question was omitted to minimize confusion.

Data for the study were obtained by mail/email survey. To increase the response rate, several important design issues were incorporated into the questionnaire based on suggestions made by Dillman (1978). The cover of the questionnaire was printed on a light coloured paper so that it looked attractive, distinctive and professional. Frazer and Lawley (2000) suggested that the overall length of the questionnaire should be well below 12 pages, which was acceptable for administration via mail. Therefore, the questionnaire was presented in the form of a 10-page booklet, including the covering page, and was printed on both sides to make it less bulky. The front page of the questionnaire included the covering letter to the potential respondents explaining the nature of the survey. To ensure that it would attract attention, relatively simple and interesting questions were placed before difficult ones. 38 questions were designed and evenly distributed over 8 pages so that the questionnaire had a lot of blank spaces, did not appear too dense, and appealed to the potential respondents. A particular blank space was designed to provide optional feedback from respondents on the questionnaire items or on the overall research suggestions. Items did not exceed medium-length (16-24 words) as suggested by Horst (1968) and Andrews (1984). All questions were easy to answer, with more than 80 percent of them requiring a simple tick mark or just inserting the number, either on a scale or among a few categories (see Appendix 2). A postage-paid return envelope was provided to encourage the return of completed questionnaires. The questionnaires were also sent out by email, and they were well protected with easy fill-in format for the encouragement of quick response.

Participants were assured that their responses would be treated as confidential and only aggregate responses would be reported. The respondents would take approximately 15-20 minutes to complete the questionnaire. Most questions were closed, with some being open-ended for enriching the flexibility of response.

3.3.3.4. Likert-type Scales

Kent (2001) observed that Likert-type scales were used to measure a wide variety of latent constructs, particularly in social science research. The survey instrument was composed of Likert-type scales to measure various factors and performance

constructs. Following previous research, Likert-type scales were used to derive a quantitative value for each construct. Likert-type scaled responses could support content and construct validity (Sekaran, 1992). Informants were asked to assess each factor for its comparative importance to the firm's growth. Although some items were asked by categories in closed and open-ended questions for accurate data collection, some items, particularly in the section of marketing competition, were rated on 5-point Likert scales, with 1 on the scale representing 'least important' or 'the lowest', to 5 on the scales representing 'most important' or 'the highest'.

3.3.3.5. Covering Letter

The questionnaire was accompanied by a covering letter describing the study and its purposes, which aimed to solicit participation in the survey (see Appendix 1). This statement explained to participants the objectives of the research, its anticipated benefits and the indication that useful information acquired from the work would be made known to them and their organizations. To ensure a good response rate, they were advised that the questionnaires were to be completed anonymously and that personal information gained would be held in strictest confidence. They were assured that the responses would only be presented in aggregate and that no single firm's results would be highlighted.

3.3.3.6. Process of Questionnaire Translation

A questionnaire was developed to measure the variables of interest in English, with a Chinese version attached. To ensure the quality of the questionnaires, the following procedure was adhered to. Although it was time-consuming, it provided the researcher with a degree of confidence of the translated materials. In this situation, the back-translation of research questionnaires was essential if issues such as equivalence were to be addressed adequately (Ramachandran, 1995):

1. The researcher prepared an English version of the questionnaire and sent it to a group of Chinese students, studying the Master degree of Foreign Language in Beijing University, to translate into Chinese version.
2. This Chinese version transcript was then passed to another group of students who were also studying the same Master degree in Beijing University. They were not allowed access to the English version. They then translated the questionnaire back into the English version without consulting the previous group of students
3. The back-translated version was passed back to the researcher, and the version was compared with the original English version transcript.
4. The researcher consulted with each of the other groups again, and arranged for amendments and revised translations where necessary. All changes were made to resolve the inconsistencies between the two versions.
5. Some wording revisions were made after the review undertaken by the researcher's supervisors from Curtin University of Technology in Australia and the co-supervisor from Lingnan University in Hong Kong, and both the final English and Chinese versions of the questionnaires were completed.

3.3.3.7. Difficulties in Questionnaire Design

Language was considered as an obstacle for questionnaire development. Although most owner-managers could understand English, it took a longer time compared to the mother tongue language, Chinese. Therefore, the questionnaires were initially developed in English to communicate with international scholars, and to ask for permission based on ethics issues. When the English version was approved, all the questions were translated into Chinese before distribution to respondents. Both language versions were printed together and sent out. Eventually, all the data received in Chinese from the respondents were then translated back to English again.

Thus, problems regarding the use of appropriate vocabularies to preserve the actual meanings were hard to avoid.

Some data from questionnaires were difficult to understand since respondents did not answer the questions both clearly and completely. The non-interactive nature of questionnaires did not allow the researcher to validate the real meanings.

Moreover, mailing or email questionnaires delayed the process of data collection because it required self-send or self-postage to facilitate responses and took time for mailing back and forth.

3.3.3.8. *Questionnaire Revision*

To ensure the content validity of the questionnaire, the survey instrument was revised in three stages. In the first stage, since the questionnaire was developed to measure the variables of interest in both English and Chinese version, a comprehensive translation process was required. The questionnaire was then revised after it was pre-tested by a group of international students studying the Master degree of Foreign Language in Beijing University. In the second stage, the questionnaire was sent to the researcher's supervisors from Curtin University of Technology in Australia and the co-supervisor from Lingnan University in Hong Kong for evaluation. Based on their recommendations, a few items were added, deleted and modified in the revised questionnaire. In the third stage, the revised questionnaire was sent to Curtin University of Technology, GSB Human Research Ethics Committee for final approval for further ensuring that it would conform to their ethical standards and abide by their guidelines. A finalized questionnaire was officially authorized and completed.

3.4 SAMPLING & DATA COLLECTION

The time period selected for this study referred to the six years prior to data collection, which coincided with the critical period after the return of sovereignty from Great Britain to the People's Republic of China. This was the period of Asian economic downturn that severely affected the Hong Kong economy, and therefore provided a significant context within which to investigate the growth in SMEs. The dependent variable for SME performance was the company employment rate increase (growth). A comprehensive set of independent variables was derived in this study for the determinants of small firm growth, and an overall assessment of their relative impact on growth was found.

The survey examined the performance of established small firms, defined as manufacturing enterprises with fewer than 100 employees and non-manufacturing enterprises with fewer than 50 employees at the beginning of the time period, or established before 2000, that is they had been in existence for at least three years before the start of the study period (The SME Information Centre, 2000). The owner-managers had to be genuinely independent, not a division, subsidiary, or franchise of a big corporation. It was also specified that the owner-managers should take active part in their companies' management (Bolton Committee, 1971). Amongst the business sectors, the survey was conducted only in the logistics sector. The target population for this study included all various kinds of logistics enterprises in Hong Kong.

Data were collected as part of a larger study of investigation in SMEs. The criterion used for selecting the sample firms was that they belonged to the category of SMEs, as defined by the Hong Kong SME Committee. During the data collection phase, a field log was kept. This provided a detailed account of planning for time to be spent in SMEs, setting aside time for analysis. A sample size of 1,500 sets of questionnaires was sent to the owner managers, in order to ensure an adequate sample size representing the Hong Kong small business population.

3.4.1. THE SAMPLE

Samples of SMEs were obtained mainly from the database held by the customer directory from the Hong Kong SchedNet, operated by the Hong Kong Shipping Gazette, which is the publisher of the logistics and shipping information for the industry in Hong Kong. The data from SchedNet were chosen because they provided the major areas of activity in the industry. It provides complete industry information in Hong Kong. To ensure the coverage of the entire range of logistics and transportation industry, additional samples were also randomly drawn from the database of Hong Kong Yellow Pages. Addressed to the owner-managers, the survey questionnaires were sent to these companies, consisting of container agencies, air and ocean freight forwarding companies, trucking, distribution and courier service companies, warehouses, 3PLs and consultancies. To ensure the achievement of an adequate response rate, reminder emails were sent at three-week intervals.

3.4.2. VARIABLES

3.4.2.1. Dependent Variables

According to the nature of the hypotheses, the dependent variable for firm growth was average annual employment increase (GR). The reasons for selecting employment growth were:

1. Small business owners are typically extremely reluctant to supply accurate accounting information to researchers (Fiorito and La Forge, 1986);
2. Being privately held, the firms in the study never published financial results for public consumption;
3. Previous small firm research suggested average annual employment growth as an appropriate outcome measure (Davidson, 1989).

Firm growth was calculated by dividing total employment, based on 1998 figures, by the number of years the firm had been in business. This calculation yielded a

simplified measure of employment growth rate, which assumed equal growth in each year of the firms' existence.

3.4.2.2. *Independent Variables*

Referring to the construct of the hypothesis, the set of independent variables included the following: Founder of business (EFB); prior management and sector experiences (EPE); motivation (EMF); unemployment push (EUP); legal structure (FLS); business planning (SBP); marketing strategy (SMS); technological sophistication (STS); employee training (SET); and external factors (EEF). With regard to the first hypothesis, there were four independent variables: management experience, prior sector experience, motivation, and unemployment push. In the case of probability analysis, the study used the above variables as dummy variables. For example, dummy (management): 1 = if owner-manager has management experience (yes), 0 = otherwise (no); dummy (sector): 1 = if the owner-manager has prior sector experience (yes), 0 = otherwise (no); dummy (motivation): 1 = if owner-manager is positively motivated (yes), 0 = otherwise (no); dummy (unemployment): 1 = if owner-manager has unemployment push (yes), 0 = otherwise (no). Regarding the other three hypotheses, planning, marketing strategy, technology, training, economy and government support were taken into consideration as independent variables. All of the background variables were self-report measures. The instrument has demonstrated reasonable levels of convergent and discriminant validity.

3.4.2.3. *Control Variables*

Before testing the hypotheses, it was important to ensure that the potential effect of the other factors was minimized. Several other enterprise-related factors (such as firm age, firm size, number of employees, and types of business) and entrepreneurial-related factors (such as gender, age, and education) were, therefore, statistically accounted for in the estimations.

Some of the difficulties were attached to the survey. Sometimes respondents would have liked to give an alternative answer to an item, to give two or more answers at the same time, or to explain their choice of a particular issue as the best answer – often these responses were possible while still not entirely accurate. Some respondents, it appeared, answered the questions so quickly that they skipped over some questions, thus missing out some answers, or even a whole section. These sorts of human error would not have been noted if the column numbers had already been printed on the research instrument, for data entry would have followed receipt of the returns. However, there was no need to edit the data in any way, since the items used in the questionnaire were mainly closed questions. Gaps in responses were treated as blank responses, and these were ignored in the statistical testing.

3.5 DATA PROCESSING AND ANALYTICAL TECHNIQUES

All expenses related to transcription, printing and postage were charged privately to the researcher's account. The major expense was postage, since the questionnaires were distributed to the participants by mail or by email. An alternative way of sending out the questionnaire was to ensure that the recipients were the owner-managers. 1,500 sets of questionnaire were sent to the owner-managers.

This study's hypothesis focused on the determinants affecting small firm growth. To test this hypothesis, a regression analysis was performed using employment growth rate as the key dependent variable. Statistical analysis of the generated data was collated as input to a data file in SPSS for Windows, Version 12 software. All the data were input and then transferred to the SPSS database for analysis. Analysis of frequencies, t-tests, cross tabs, principal components analysis, discriminant analysis, cluster analysis and correspondence analysis were the main statistical methods used in refining and analyzing the data. Analyses of the frequencies of responses to the questionnaire and the means and standard deviations of individual variables were undertaken in order to describe and understand the sample. A variety of univariate and multivariate regression analyses, using mainly parametric statistical tests, was

applied to examine different specific problems and the background/experiences among different variables.

3.5.1. FIVE CATEGORIES OF GROWTH RATE

The research purpose was to compare high- or fast-growth firms with low- or static-growth firms. The result was to reflect the characteristics of different rates of growth, and implied that since high-growth firms behaved in a particular manner, then all firms wishing to grow quickly might behave in a similar way, while low-growth or static-growth firms that behaved in a different manner might be avoiding doing the same way.

By using the above equation, the firm growth was calculated in terms of employment turnover. As already stated, the objective of this study was to investigate the determinants of SME growth, in particular fast growth, in the small firm sector. A final and most important element of the sample selection was to ensure that fast-growth firms were represented adequately in the research. The growth index was calculated as 2003 employment minus 1998 employment divided by the average of 2003 and 1998 employment. This growth index variable was asymptotically normally distributed, so it was statistically appropriate. Using employment change over the period 1998-2003 as a measure of growth, Barkham's (1996) growth model was used to represent the growth rate. The samples were classified into five performance groups on the basis of the following criteria:

1. Highest-growth (100% employment growth or more), firms that double or more than double employment turnover while maintaining consistent profitability;
2. Fast-growth (67-99% employment growth), firms that are above average with good performance of profit;
3. Medium-growth (34-66% employment growth), firms that have moderate growth with reasonable profit;
4. Slow-growth (1-33% employment growth), firms that sustain some growth with little or no profit, and

5. Static/declining (zero or negative employment change), firms that remain about the same size, or even actually decline, with no or negative profit, remaining for survival.

3.5.2. TEST OF NORMALITY

This section examines the characteristics of the research respondents in order to establish the rigor of the sampling methodology, and to present some broad assessment of the representative nature of the final sample. The study has components of descriptive analysis, exploratory research and hypothesis testing. A theoretical framework was developed, hypotheses formed and tested, and some further exploratory analyses planned. The main focus was on ensuring scale reliability and validity.

3.5.2.1. Reliability

Reliability is concerned with whether the measurement of a given construct can be repeated; that is, reliability assesses whether the measurement of a construct can be duplicated over time instead of its being a random event (Hair et al., 1995). As suggested by Nunnally (1978), the reliability of the measures was tested using Cronbach's alpha. Reliability should be the first measure calculated to assess the quality of the instrument (Churchill, 1979). From a construct reliability perspective, although Powell & Dent-Micallef (1997) claimed that no precise ranges existed to evaluate the Cronbach alpha, the most commonly cited minimum threshold was 0.70 (Nunnally, 1978). However, other scholars (Churchill, 1991; Sekaran, 1992; Slater, 1995) have suggested that reliability coefficients (i.e., Cronbach's alpha) as low as .60 were acceptable for hypothesis testing. In order to select the items, item reliability (where reported) was first checked to ensure that it meets minimum acceptable thresholds (e.g., Cronbach alpha of 0.60 or greater). Second, both convergent and discriminant validity were examined (where reported) to determine if the resource items predicted to measure a particular construct did, in fact, measure that construct.

External reliability assesses the issue of the similarity of results provided by independent but comparable measures of the same object, trait or construct (Churchill, 1995). Internal reliability is commonly assessed using Cronbach's Coefficient Alpha. Findings of a meta analysis of this measure were used. Reliability of scales is a key concern, particularly when used in multiple regression analysis where factor analysis was employed. A high degree of reliability will not stop these problems, but at least one can be more confident that they are not instrument related.

3.5.2.2. Validity

The question of validity draws attention to how far a measure really measures the concept that it purports to measure. In the main, the items load on their predicted constructs, thus confirming convergent validity. Loadings were at the 0.50 level or higher, which is considered very significant (Hair et al., 1987). With respect to discriminant validity, all items loaded higher on their predicted constructs than on their cross-loadings, thus suggesting a good fit. Lastly, no anomalies were found between convergent and discriminant validity in the studies (Fahy, 2002)

Validity is composed of both internal and external components. Measuring and reporting validity have the aim of allowing the results of experiments to be generalized to the population. What we intend to measure is actually what we do measure, and that the thing we measure is identifiable as a separate construct.

3.6 ETHICAL ISSUES

Every effort has been made in all aspects of data collection to avoid the pitfalls associated with what many researchers have referred to as 'armchair research'. Methods and procedures used in this study have been described clearly to enable other researchers to replicate procedures and conditions of the study for further

investigation. To ensure informed consent of respondents, the following considerations are stated in the questionnaire:

1. Purpose of the study
2. Anticipated uses of the data
3. Identity of the researcher and his office
4. Respondent's role in the study
5. Degree of anonymity and confidentiality
6. Data storage and statistical procedures to be used in the study

In framing the questions, there are instances where direct quotations from other surveys have been adopted, for example from Barkham et al. (1996): measure of SME growth. Sensitivities of respondents to personal questions were also considered. Consistency in the use of terminologies was observed and frequently used terms were defined carefully for a clearer understanding of the questions. Terms defined by a number of authors, which were found applicable, have been used and cited in the study.

In writing the research report, all sources of information have been properly acknowledged, whether their words have been paraphrased, summarized or quoted. All research for the dissertation was conducted in accordance with the Curtin Guidelines for Doctoral Students, section 4: Code of Conduct (Curtin University GSB Ethics Committee, related Ethics Committees, and all other outside Ethics Committees). A written consent form was developed following the Lingnan University policies in Hong Kong. The research trail was transparent. Anonymity and confidentiality were maintained at all times and all participation was voluntary. Any private individual materials referred to in the questionnaire were not transcribed and were treated as strictly confidential. A written guarantee of privacy and confidentiality was issued to participants or organizations from whom the data were collected.

Transcripts, questionnaires, subsequent coded information and data analysis were archived securely by the researcher for the appropriate time required. Retrieved questionnaires and semi-processed data (statistical tabulations) were kept for review

at any time by the research supervisor or any member of Curtin GSB and other users. In obtaining secondary data from government and private sectors, formal requests were made for access to these materials.

3.7 CONCLUSION

This chapter has detailed the development of the research methodology, the choice of instrument, and the way in which the responses were gained. It also explained the statistical method used in the analysis of results and the hypotheses which these analyses were tested. The following chapters will present and explain the results obtained, showing how they relate to the original hypotheses and to the objectives of the project.

CHAPTER 4: RESULTS & ANALYSIS

4.1 INTRODUCTION

This chapter describes all analyses conducted using data drawn from the sample of SMEs in the logistics industry. The data were analysed empirically to test the proposed model and research hypotheses. First, the evaluations of the response rate, non-response bias and the general descriptive of the study respondents are provided. Second, the measurements of scales of the key constructs are examined and assessed. Finally, the results of the statistical tests that were used to test the hypotheses are provided.

4.2 GENERAL CHARACTERISTICS OF THE SAMPLE

4.2.1. THE RESPONSE RATE

The study focused on logistics establishments operating in Hong Kong. Using the database held by the customer directory from the Hong Kong SchedNet and the Hong Kong Yellow pages, 1,500 firms were stratified and randomly selected to form the final sample. After careful evaluation of each neighbourhood, a mailing list of 1,500 businesses was prepared. Mailings were sent out during August and September of 2004. The mailing was conducted in two stages. A sample of 1,000 SMEs was first randomly drawn and questionnaires were sent out to their owner-managers during August. 66 questionnaires were returned with unknown addresses or as undeliverable either because the intended informant was no longer at the address or the businesses had moved or closed. This brought the number surveyed to 934. 76

usable questionnaires were received. This response rate did not yet represent an adequate small business population. A second mailing was then conducted to improve the response rate, and another 500 hundred questionnaires were sent out, of which 29 were also returned with unknown addresses. 28 usable responses were received. As a whole, 1405 questionnaires were sent out. By the end of October, 2003, a total of 104 firms had responded to the questionnaire, of which two were not usable due to incomplete data. Eventually, 102 usable questionnaires were received for use in the study, yielding a response rate of 7.26 percent. Based on an evaluation of the characteristics of the owners who responded to the survey, it was decided that the sample could be considered to be a reasonably adequate representation of the small business population in the industry. No further attempt was made to improve the response rate.

Even given the nature of small firms and the low response usually associated with most mail surveys, the response rate was considered to be rather low, hence caution is needed in interpreting the results. However, low response rates have been reported frequently in earlier research on small firms (Chaganti et al., 2002; Cook et al., 1998; McDougall and Robinson, 1990). The employing industries provided a broad range of logistics and transportation services. Responding firms were distributed within the industry with the following sectors: shipping/container agencies, distribution/channel selection, air/ocean freight forwarding, trucking transport, parcel delivery/courier services, procurement/material management, warehousing/storage/packaging services, 3rd party logistics service providers, and logistics/IT consultancies. Using the data from owner-managers in the industry reduced heterogeneity and assured adequate numbers of respondents.

4.2.2. NON-RESPONSE BIAS

One key issue is commonly raised with respect to the use of survey methodology: non-response bias (Armstrong and Overton, 1977). Non-response bias is a test to determine if respondents are any different than those in the sample who do not respond. To test for non-response bias, the respondents to the first and second

mailings were compared on key growth variables. The rationale behind such an analysis is that the second mailing respondents are more similar to the general population than the first mailing respondents (Armstrong and Overton, 1977). For the analysis, the first mailing respondents (75% of the sample) were compared with second mailing respondents (25% of the sample) using an independent samples test. A comparison between these two mailing respondents revealed no significant differences in two key growth variables namely employment growth rate and turnover growth rate (Table 4.1). As an additional test, respondents were compared to the full sample population chosen for the study and no significant differences are found between employment growth rate ($t = -1.143, p = 0.829$) and turnover growth rate ($t = 1.098, p = .853$). Thus, the respondents appear to be representative of the broader population.

Table 4. 1 Independent Samples Test for Non-response Bias

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Employment growth rate	Equal variances assumed	.047	.829	-1.143	98	.256	-.18281	.16000
	Equal variances not assumed			-1.177	52.366	.245	-.18281	.15538
Turnover growth rate	Equal variances assumed	.035	.853	-1.098	96	.275	-.14621	.13322
	Equal variances not assumed			-1.332	78.727	.187	-.14621	.10980

4.2.3. COMMON METHOD BIAS

The measurement of the research constructs relied solely on the perceptual judgment of a single individual, in this case, the owner-manager or equivalent. Thus, the measurements of the data were based on the responses of a single individual with no additional assessment taken from other individuals. Using such a measurement technique raises the issue of common method bias, which can be particularly dangerous when a single informant fills out items that tap into independent and dependent variables within the same survey instrument. However, the factor analyses that are reported below demonstrate that a single factor solution did not emerge, as

evidenced by Harman's ex post one-factor test (Podsakoff and Organ, 1986). Hence, it is unlikely that there was any common method bias.

4.3 DESCRIPTIVE RESULTS AND ANALYSIS

Overall, 102 small firm owner-managers participated in the study and the distributions of the businesses in the industry in terms of growth category, employment size, business sectors and years were investigated. Two of the respondents did not provide any employment data for the period 1998-2003 since they did not provide any information for the year of 1998. The initial intention was to obtain a response rate of at least 10% of the 1,500 questionnaires, however, a response rate of 7.26% was yielded, proving that it was more difficult than at first envisaged obtaining the desired response rate. This indicates that small business owner-managers may have no interest in research finding. As mentioned above, the low response rate means that caution is needed in interpreting the results.

Table 4.2 presents data on the employment growth rate in each of the five pre-determined growth categories (i.e. one-fifth in each) which was discussed in the previous chapter. The objective to obtain equal numbers of small firms was not achieved, with 37 firms (36.3%) being categorized as 'zero or decline growth', giving particularly evidence of a negative average growth rate (-12.15%). More than half of the sample (53.9%) had engaged in the category of 'low growth' and 'zero or decline growth', thus suggesting a comparably low employment growth rate in the survey. The overall average growth rate was 47.23%, representing a positive growth model in employment rate.

Table 4. 2 Employment Growth Rate, 1998-2003

		Frequency	Percent	Valid Percent	Cumulative Percent	Average Growth Rate
Valid	zero or decline growth	37	36.3	37.0	37.0	-12.15
	low growth	18	17.6	18.0	55.0	26.14
	medium growth	10	9.8	10.0	65.0	50.29
	fast growth	16	15.7	16.0	81.0	70.27
	highest growth	19	18.6	19.0	100.0	161.82
	Total	100	98.0	100.0		
Missing	NA	2	2.0			
Total		102	100.0			

Note: Two firms failed to provide employment data for 1998-03.

Table 4.3 presents data on the average growth rates in terms of employment, turnover, asset turn and net profit results. One of the interesting points to emerge is that for the ‘zero or decline’ and ‘low growth’ small firms average employment growth was much lower than growth in other categories, however, for the ‘highest’ and ‘fast’ growth firms average employment growth was higher than the other categories. This indicates that the return on business was unreasonably low in comparison to employment growth, implying a high negative return growth. Confining the calculation of the overall average growth, 37% of employment growth fell into the category ‘zero or decline growth’, however, a double figure (61.2%-73.5%) of return growth was recorded. This confirms this conclusion. For the ‘highest’ and ‘fast’ growth rates, the employment growth rates are still slightly higher than the return rates, thus implying a low return growth. Overall, the employment growth rate (47.23%) was correlated with the return of business growth (turnover growth 15.55%, asset growth 18.37%, and net profit growth 5.92%), although the employment growth had a much better performance rate than the return growth.

Table 4. 3 SME Growth Rate in Category, 1998-2003

		Employment		Turnover		Asset		Net Profit	
		No of Firms	Valid Percent						
Valid	zero or decline growth	37	37.0	60	61.2	72	73.5	70	71.4
	low growth	18	18.0	24	24.5	11	11.2	15	15.3
	medium growth	10	10.0	5	5.1	9	9.2	9	9.2
	fast growth	16	16.0	5	5.1	0	0	0	0
	highest growth	19	19.0	4	4.1	6	6.1	4	4.1
	Total	100	100.0	98	100.0	98	100.0	98	100.0
Missing	NA	2		4		4		4	
Total		102		102		102		102	

Note: Two firms failed to provide employment data for 1998-03.

Four firms failed to provide data on turnover, assets and net profit for 1998-03

The types of business are dominated by almost 80% falling into five major logistics services: air freight forwarding, ocean freight forwarding, trucking transport, shipping agencies and warehousing services within this sample (Table 4.4). Air freight forwarding accounted for 20 firms (19.6%), ocean freight forwarding for 19 firms (18.6%), trucking transport for 19 firms (18.6%), container/shipping agencies for 11 firms (10.8%) and warehousing/storage/packaging for 11 firms (10.8%). The newly developed services were engaged with the remaining other activities. Distribution/channel selection accounted for 5 firms (4.9%), parcel delivery/courier for 7 firms (6.9%), 3rd party logistics service provider and procurement/materials management for 4 firms each (3.9%), and logistics consultancy/IT services and other businesses accounted for only 1 firm each (1%). Since the focus of this research was on the differences among various businesses in the industry, the larger percentage of forwarding and trucking establishments responding to the survey reflects this sampling decision. Average growth rates varied quite markedly between different business sectors. However, a remarkable ‘zero or decline growth’ rate of employment was recorded overall for the entire industry, accounting for 37%. In the trucking transport business sector, 11% fell into zero or negative growth. The rest of the growth rates were distributed fairly evenly, with 19% indicating highest growth, 16% fast growth, 10% medium growth and 18% low growth.

Table 4. 4 Types of Business and Employment Growth Rate in Category Crosstabulation

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
shipping/container agency	11	10.8	10.8	88.79
distribution/channel selection	5	4.9	15.7	21.43
air freight forwarding	20	19.6	35.3	73.06
ocean freight forwarding	19	18.6	53.9	64.56
trucking transport	19	18.6	72.5	28.59
parcel delivery/courier	7	6.9	79.4	-06.55
3rd party logistics service provider	4	3.9	83.3	43.75
logistics consultancy/IT services	1	1.0	84.3	-8.33
procurement/material management	4	3.9	88.2	6.63
warehousing/storage/packaging	11	10.8	99.0	32.38
others	1	1.0	100.0	33.33
Total	102	100.0		

Types of business	Employment growth rate in category					
	zero or decline growth	low growth	medium growth	fast growth	highest growth	Total
shipping/container agency	1	2	0	5	3	11
distribution/channel selection	3	0	1	0	1	5
air freight forwarding	5	3	2	3	7	20
ocean freight forwarding	4	1	2	7	3	17
trucking transport	11	2	2	1	3	19
parcel delivery/courier	5	2	0	0	0	7
3rd party logistics service provider	1	1	1	0	1	4
logistics consultancy/IT services	1	0	0	0	0	1
procurement/material management	2	2	0	0	0	4
warehousing/storage/packaging	4	4	2	0	1	11
others	0	1	0	0	0	1
Total	37	18	10	16	19	100

Note: Two firms failed to provide employment data for 1998-03.

Table 4.5 shows the employment size distribution of the small firms included in the survey. There was no attempt made to control for the size at the time of sample

selection but the final sample reflected the full range of firm sizes within the small firm sector. The majority of firm sizes fell into the category of 11-25 employees (38%). A little more than half of the firms sampled (57%) employed fewer than 10 persons; however, only 5% had more than 25 employees. The median employment size is 10 persons with a mean of 12.46 employees. Not surprisingly, average growth rates in employment were correlated by size, with the smallest firms (in 1998) experiencing the fastest growth over the period.

Table 4.5 Number of Employment Size and Employment Growth Rate 1998 in Category Crosstabulation

No of employment in 1998		No of Firms	Valid Percent	Employment growth rate in category					Total
				zero or decline growth	low growth	medium growth	fast growth	highest growth	
Valid	1-5	23	23	13	2	1	3	4	23
	6-10	34	34	11	4	4	7	8	34
	11-25	38	38	12	10	4	5	7	38
	26-50	3	3	1	1	0	1	0	3
	more than 50	2	2	0	1	1	0	0	2
Total		100	100	37	18	10	16	19	100
Missing		2							2
Total		102							102

Note: Two firms failed to provide employment data for 1998-03.

Referring to the age of the firm (Table 4.6), nearly 64% of the responding firms were within the 6-10 years range, with fewer than 9% being over 15 years of age. The median age of businesses surveyed was 8 years, with the mean age being 9.53 years. Average growth rates in employment was correlated highly with age of firm; the younger the firm, the faster the rate of growth, particularly for those businesses which had been operating for less than 10 years.

Table 4. 6 Number of Years of Business and Employment Growth Rate in Category Crosstabulation

Number of years of business	No of Firms	Valid Percent	Employment growth rate in category					Total
			zero or decline growth	low growth	medium growth	fast growth	highest growth	
1-5	8	7.8	0	1	0	2	3	6
6-10	65	63.7	26	12	6	11	10	65
11-15	20	19.6	8	3	3	2	4	20
16-20	6	5.9	2	2	0	1	1	6
more than 20	3	2.9	1	0	1	0	1	3
Total	102	100	37	18	10	16	19	100

Note: Two firms failed to provide employment data for 1998-03.

4.4 TEST FOR NORMALITY

As Hair et al. (1998) pointed out, “the most fundamental assumption in multivariate analysis is normality....if the variation from the normal distribution is sufficiently large, all resulting statistical tests are invalid, as normality is required to use the *F* and *t* statistics”. The first step in checking for normality of data was to find out the shape of the distribution of data by looking at the means and standard deviations of all variables. Then the SPSS version 12 was used to compute the statistics results and the distributions of the data were compared with the cumulative distribution of a normal distribution.

The following section describes the tests undertaken to examine the constructs in this study. Specifically, tests for construct reliability, discriminant validity, and convergent validity were conducted. Construct reliability tests the degree to which individual items used in a construct are consistent in their measurements (Nunnally, 1978). Convergent validity tests the degree to which items designed to load on the same construct actually do so (Carmines and Zeller, 1979). Discriminant validity tests the degree to which items measuring one construct relate exclusively to that construct and not to another (Churchill, 1979). As a final set of analyses, correlations, tolerances, and variance inflation factors were examined to assess the presence of multicollinearity.

4.4.1. VALIDITY AND RELIABILITY MEASURES

To assess construct validity of study scales, all measures were tested and refined using confirmatory factor analysis. Measurement models comprising relations among the observed variables and theoretical constructs were created and tested. All models' path coefficients were significant at the 0.50 level, which indicates satisfactory convergent validity (Hair et al., 1987). With respect to discriminant validity, all items loaded higher on their predicted constructs than on their cross-loadings, thus suggesting a good fit. Finally, all multi-item measures achieved superior or adequate reliability scores in tests with Cronbach's alpha (Nunnally, 1978). In all, the analyses adopted suggest that satisfactory construct validity was achieved in measuring each study construct.

The reliability of a measure refers to its consistency. This notion generally includes two aspects – external and internal reliability. External reliability is the more common of the two meanings and refers to the degree of consistency of a measure over time. In terms of its administration, external reliability simply means the administering of a test on two occasions to the same group of subjects – test reliability is being examined. In general, people who scored high on the test initially will also do so when retested; in other words, the relative position of each person's score will remain relatively constant. The problem with such a procedure is that intervening events between the test and the retest will result in discrepancy between the two sets of results. For example, if the job satisfaction of a group of workers is gauged and three months later is reassessed, it may be found that in general respondents exhibit higher levels of satisfaction than previously. It may be that in the intervening period they have received a pay increase or a change to their working practices or some other factors that are beyond that control of the inquirer. If the test and retest are also too close in time, subjects may recollect earlier answers so that an artificial consistency between the two tests is created. However, test-retest reliability is one of the main ways of checking external reliability.

Internal reliability is particularly important in connection with multiple-item scales. It raises the question of whether each scale is measuring a single idea and hence whether the items that make up the scale are internally consistent. A number of procedures for estimating internal reliability exist and the one that has found to receive the widest acceptance is Cronbach's Alpha, which essentially calculates the average of all possible split-half reliability coefficients. The rule of thumb is that the result should be 0.70 or above.

In order to gain the highest possible reliability coefficient, selected items were dropped from selected constructs. Both convergent and discriminant validity were examined (where reported) to determine if the items predicted to measure a particular construct, in fact, did measure that construct. After all items had been generated, theoretical guidance and judgment were used to select the items that best met the domain of the specific construct as defined in this study. However, where possible, the scales encapsulated items used in previous studies to maintain consistency. The tables displayed later in this Chapter identify all the sources of the items used in this study.

However, Churchill (1991), Sekaran (1992) and Slater (1995) suggested that a reliability alpha as low as 0.60, but no lower, is generally acceptable. Nunnally (1997) suggested that a minimum alpha 0.60 would suffice for early stages of research. Although all the constructs met the minimum coefficient threshold, in order to gain the highest possible alpha and thus reliability, select items were dropped. This also assumes the validity of the measurement. Appendix 3 shows the reliability test that is summarized in Table 4.7 displaying each construct and its associated reliability coefficient.

According to Sekaran (1992), the closer Cronbach's alpha is to 1, the higher the internal consistency reliability. In general, reliabilities less than 0.60 are considered to be poor, those in the 0.70 range to be acceptable, and those higher than 0.80 to be good. The Cronbach's alpha of marketing competition (0.89) exceeded Nunnally and Berstein's (1994) recommended level of 0.80 regarding to be good performed. The Cronbach's alpha of the importance to growth (0.67), planning and objective (0.67), training program (0.77), technology (0.68) exceeded the recommended level of 0.6 to

be considered acceptable. All of the constructs used in the final sample met or exceeded the 0.67 threshold, except the construct of respondent's qualification, considered to be satisfactory. The Cronbach's alpha of the subscale on respondent's qualification reported in this study was 0.50. Caution should therefore be exercised in interpreting the results on respondent's qualifications.

Table 4. 7 Cronbach's Alpha for the Constructs

Construct	No. of Indicators	Cronbach's Alpha
Qualification	3	.50
The Importance to Growth	4	.67
Planning & Objective	3	.67
Training Program	3	.77
Technology	2	.68
Marketing Competition	13	.89

4.4.2. CORRELATIONS BETWEEN KEY MEASURES

In this study, correlation analysis was used to describe the strength and direction of the linear relationship between two variables (Pallant, 2001). The means, standard deviations, and correlation coefficients of all the variables used to test the hypotheses are summarized in Table 4.8. There are a number of different statistics available, depending on the level of measurement. In this study, the procedure for obtaining and interpreting a Spearman's nonparametric correlation coefficient was used.

Given that correlations between independent variables can cause problems with multicollinearity in regression analysis (Mason and Perreault, 1991; Mendenhall and Sincich, 1993), examining the significance of the correlation coefficients takes on added importance.

Table 4. 8 Results of Variable Means, Standard Deviation and Spearman's Correlations (Nonparametric)

	M	S.D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1 Respondent's gender	1.18	.383	1.000																										
2 Respondent's age	3.65	.863	.034	1.000																									
3 Education level	2.58	.989	.171	.000	1.000																								
4 Other qualification	1.84	.365	.058	-.107	-.328(**)	1.000																							
5 Prior experience	1.16	.365	.154	-.090	-.160	.112	1.000																						
6 Management experience	1.37	.486	-.038	-.309(**)	-.520(**)	.277(**)	.337(**)	1.000																					
7 Unemployment status	1.88	.324	-.070	-.115	.031	.010	-.094	-.096	1.000																				
8 Types of business	4.77	2.67	-.030	-.107	-.076	.231(*)	-.107	.106	-.147	1.000																			
9 Methods of business acquired	2.68	.720	.006	.018	.083	-.127	.054	.002	-.087	-.095	1.000																		
10 Legal status	2.24	.869	.037	.189	.249(*)	-.271(**)	.039	-.439(**)	.165	-.446(**)	.104	1.000																	
11 The importance of employment	2.85	.801	-.067	.096	.111	-.047	-.239(*)	-.052	-.151	.030	-.049	-.042	1.000																
12 The importance of turnover	3.76	.846	-.150	.162	.224(*)	-.072	-.255(**)	-.336(**)	-.009	-.117	-.266(**)	.333(**)	.232(*)	1.000															
13 The importance of profit	3.92	.864	-.244(*)	.117	.202(*)	.079	-.218(*)	-.200(*)	-.057	-.071	-.164	.337(**)	.092	.746(**)	1.000														
14 The importance of total assets	3.13	.840	-.055	-.042	-.102	.017	-.161	.231(*)	.088	-.021	-.050	-.034	.251(*)	.213(*)	.216(*)	1.000													
15 Aim to increase the size of business	1.40	.492	.099	-.242(*)	-.251(*)	.074	.369(**)	.458(**)	-.203(*)	.200(*)	-.049	-.183	-.190	-.230(*)	-.148	-.189	1.000												
16 Motivation	1.25	.432	.334(**)	.015	-.141	.120	.256(**)	.315(**)	-.287(**)	.011	.039	-.288(**)	.014	-.156	-.149	.110	.239(*)	1.000											
17 Entrepreneurial style	1.79	.637	-.101	.334(**)	.017	.016	-.203(*)	-.243(*)	-.107	-.085	-.091	.006	.124	.177	.022	-.150	-.268(**)	-.104	1.000										
18 Formal business plan	1.37	.486	.282(**)	-.213(*)	-.211(*)	.221(*)	.281(**)	.455(**)	-.222(*)	.119	-.072	-.366(**)	-.034	-.278(**)	-.167	-.012	.541(**)	.457(**)	-.177	1.000									
19 Business objective	1.25	.438	.142	-.147	-.224(*)	.252(*)	.304(**)	.340(**)	-.275(**)	.166	-.144	-.305(**)	-.163	-.208(*)	-.113	.030	.449(**)	.399(**)	-.108	.619(**)	1.000								
20 Marketing strategy	1.32	.700	.285(**)	.057	.199	-.063	-.063	-.132	.190	.051	-.010	.060	.008	-.034	-.096	-.020	.026	-.051	.007	-.066	-.230(*)	1.000							
21 Information system	1.47	.502	.027	.008	-.384(**)	.245(*)	.403(**)	.574(**)	-.143	.142	.083	-.362(**)	-.205(*)	-.434(**)	-.278(**)	-.021	.446(**)	.422(**)	-.155	.452(**)	.350(**)	-.264(*)	1.000						
22 Operating technology improvement	1.27	.448	.061	-.073	-.283(**)	.145	.278(**)	.480(**)	-.185	.018	.176	-.417(**)	-.198(*)	-.353(**)	-.286(**)	-.003	.358(**)	.365(**)	.038	.480(**)	.396(**)	-.088	.520(**)	1.000					
23 Training programs to employees	1.53	.502	.180	.011	-.380(**)	.299(**)	.083	.414(**)	-.101	-.210(*)	-.074	-.493(**)	-.109	-.375(**)	-.369(*)	-.033	.189	.405(**)	.047	.531(**)	.284(**)	-.106	.387(**)	.453(**)	1.000				
24 Economic difficulty affection	1.21	.408	-.057	.027	.127	-.307(**)	-.031	.035	.191	-.054	-.043	.114	.130	-.047	-.034	-.041	.117	-.134	-.164	-.014	-.252(*)	.192	.026	-.111	-.133	1.000			
25 Other external factor	1.61	.491	.038	-.053	.071	-.052	.073	.169	-.046	.098	.019	-.044	-.087	-.111	-.006	-.129	.134	.070	.029	.084	.105	-.140	.203(*)	.185	.084	.064	1.000		
26 Government support	1.82	.383	-.056	.027	-.249(*)	.225(*)	.129	.250(*)	-.089	.052	-.018	-.236(*)	-.173	-.215(*)	-.055	-.081	.113	.144	.122	.304(**)	.271(**)	-.166	.179	.169	.237(*)	-.080	.063	1.000	
27 Government funds or subsidiaries	1.88	.324	-.150	.127	-.129	.094	.074	.030	-.039	-.109	.063	-.085	-.203(*)	-.058	.027	-.068	.047	.067	.172	.281(**)	.214(*)	-.103	.100	.225(*)	.269(**)	-.191	-.022	.150	1.000

N = 102

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

4.4.3. CROSSTABULATION

Crosstabulations display the joint distribution of two or more categorical variables, and are commonly used to explore how demographic variables are related to various attitudes and behaviours (Rodeghier, 1996). In this study, crosstabulation was used to explore the relationship between individual variables and other variables, e.g. age with other owner-manager's characteristics.

4.5 THE EMPIRICAL RESULTS

As an empirical examination of the individual factors, they were analyzed separately in three broad groups. Table 4.9 shows each of the three groups of variables individually in the model, which yields some useful insights into the nature of the interrelationships between the variables in the model. The results, in aggregate, indicate various significant performances. Some of the variables were individually significant, and some were not important influences on firm growth. Some of the variables were excluded since they were duplicated or alternative measures of variables included. Those variables not included in the category represent hypotheses which were not supported by the survey data.

Table 4. 9 Correlations Coefficient between Independents Variables and Small Firm Growth, 1998-2003

		Independent Variables	Coefficient
Owner-manager Characteristics	1	Gender	(-0.15)
	2	Age	0.20*
	3	Education	(0.16)
	4	Other qualification	0.18*
	5	Prior sector experience	(0.02)
	6	Management experience	0.30**
		Years of Management experience	0.34**
	7	Unemployment status	(0.09)
	8	Importance to growth	
		Importance to growth (Employment)	(-0.01)
		Importance to growth (turnover)	0.29**
	Importance to growth (profit)	0.32**	
	Importance to growth (assets)	(-0.06)	
	9	Entrepreneurial style	(0.05)
	10	Aim to increase firm size	0.17*
	11	Motivation	0.19*
Firm Characteristics	12	Years of business	(-0.07)
	13	Method of business acquisition	(-0.06)
	14	Legal status	0.44**
		Other stockholder	0.29*
		Dominant partner	0.42*
	15	Firm size	(0.04)
Business Strategies	16	Business plan	0.25*
		Business plan (% achieved)	0.23*
	17	Business Objective	0.29**
		Business Objective (% achieved)	(0.19)
	18	Marketing strategy	0.20*
	19	Information system	0.25**
	20	Operating technology improvement	0.23**
	21	Training program to employee	0.36**
		Training program (internal)	0.30**
		Training program (external)	0.25*
	22	Market status	
		Cost leadership	(0.04)
		Price of product/service	(0.06)
		Niche market positioning	(0.14)
		Quality of product/service	0.36**
		Customized/value added service	0.33**
		Product differentiation	(0.13)
		Innovation	(-0.01)
		New product/service introduction	(0.03)
		New market development	(0.11)
	Customer relationship	(0.02)	
	Operating technological advance	0.24*	
	Information system	0.26**	
	Employee training	0.33**	
External Factors	23	Economic difficulty	(0.05)
	24	Other external factor	(-0.12)
	25	Government support	(-0.13)
		Government funds/Subsidiaries	(0.01)

Note: No of case: 102

* indicates the coefficients are statistically significant at 5% level

** indicates the coefficients are significant at 1% level

() indicates the coefficients are not significant.

4.5.1. THE MULTIPLE REGRESSION RESULTS

The 102 variables obtained from the survey were tested for their influence on growth of firms over the period 1998-2003. A number of variables were correlated individually with growth in employment rate; however, some were not regressed with firm growth. Of the greatest interest are the multiple correlations of those variables which were correlated collectively and simultaneously with growth in a statistically significant manner. It is worth noting that some variables which were not correlated individually with growth could be seen to be important when other factors were controlled for. Conversely, other variables ceased to be associated significantly with growth when included in combinations with other variables.

All of the variables in the analysis indicated direct causation of growth. The full model contains 25 variables and is complex in interpretation (Table 4.10). A number of regression equations were reported in this section, which included all of the statistically significant variables or subsets of them. Table 4.11 shows the details of regression results in line with the framework grouped into three categories: owner-manager characteristics, firm characteristics and business strategies. The multiple regression equation contains all of the variables found to be associated simultaneously and significantly with growth as well as some which were statistically insignificant.

Table 4. 10 The Variables included in Multivariate Equations

Dependent variable			
	growthr	Log of the ratio of Employment growth rate in 2003 to growth rate in 1998	
Other Growth Rate Factors	turnr	Revenue turnover growth rate in 2003 to growth rate in 1998	
	assetr	Asset growth rate in 2003 to growth rate in 1998	
	nprofr	Net profit growth rate in 2003 to growth rate in 1998	
Independent Variables			
Owner-manager Characteristics	1	gender	Respondent's gender
	2	age	Respondent's age
	3	educ	Respondent's highest level of education
	4	othquali	Respondent's other qualification
	5	priorex	Respondent's prior experience related to business
	6	mgtxp	Respondent's past management experience
	7	unemp	Unemployment status of respondent
	8	impgrw	The view of importance to respondent in employment, turnover, profit and asset growth
	9	entstyle	Entrepreneurial style of respondent
	10	aimsiz	Respondent's aim to increase the size of business
	11	motive	Respondent's motivation to establish own business
Firm Characteristics	12	busyrs	Number of years of business operated
	13	busacq	Methods of acquiring business
	14	legalstus	Legal status of the firm
	15	Empsiz	Employment size in 1998
Business Strategies	16	bplan	Formal business plan for the company
	17	object	Business objective achieved for the company
	18	mktstrg	Marketing strategy to compete for the company
	19	itsys	Information system improvement for the company
	20	optech	Operating technology improvement for the company
	21	trainprom	Training programs to employees
	22	mkstatus	Market status to compete with competitor
External Factors	23	Ecodiff	Economic difficulty in last six year
	24	Othextf	Other external factors
	25	Govt	Government support

Table 4. 11 Model Summary: Regression of Independent Variables on Firm Growth, 1998-2003

Owner-manager characteristics	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change
Respondent's gender	.153	.023	.013	1.558	.129
Respondent's age*	.196	.038	.029	1.546	.051
Highest level of education	.158	.025	.015	1.557	.117
Other qualification*	.176	.031	.021	1.552	.080
Prior experience	.019	.000	-.010	1.576	.852
Number of years of prior experience	.127	.016	.006	1.567	.216
Management experience**	.304	.093	.083	1.502	.002
Number of years of management experience**	.336	.113	.104	1.489	.001
Unemployment status	.088	.008	-.002	1.570	.386
The importance to growth					
The importance of employment to growth	.007	.000	-.010	1.576	.945
The importance of turnover to growth**	.293	.086	.077	1.507	.003
The importance of profit to growth**	.316	.100	.091	1.495	.001
The importance of total assets	.061	.004	-.006	1.574	.548
Entrepreneurial style	.053	.003	-.007	1.564	.602
Aim to increase the size of business*	.177	.031	.021	1.541	.080
Motivation*	.193	.037	.028	1.547	.054
Firm characteristics					
Years of business	.069	.005	-.005	1.573	.493
Methods of business acquired	.058	.003	-.007	1.574	.566
Legal status*	.439	.192	.184	1.417	.000
Firm size	.037	.001	-.009	1.575	.716
Business strategies					
Formal business plan*	.251	.063	.054	1.526	.012
Business objective**	.289	.083	.074	1.509	.004
Marketing strategy*	.196	.038	.028	1.541	.057
Information system**	.246	.060	.051	1.528	.014
Operating technology improvement**	.233	.055	.045	1.533	.019
Training programs to employees**	.358	.128	.119	1.478	.000
Marketing competition					
Cost leadership	.038	.001	-.009	1.575	.705
Price of product/service	.062	.004	-.006	1.573	.538
Niche market positioning	.136	.018	.008	1.562	.178
Quality of product/service**	.361	.131	.122	1.469	.000
Customized/value added service**	.327	.107	.097	1.490	.001
Product differentiation	.133	.018	.008	1.563	.187
Innovation	.007	.000	-.010	1.580	.946
New product/service introduction	.033	.001	-.009	1.577	.745
New market development	.114	.013	.003	1.568	.265
Customer relationship	.017	.000	-.010	1.583	.869
Operating technological advance*	.236	.056	.046	1.537	.021
Information system**	.260	.067	.058	1.526	.010
Employee training**	.329	.108	.099	1.488	.001

Note: No of case: 100

* indicates the coefficient is significant at the 5% level

** indicates the coefficient is significant at the 1% level

The owner-manager characteristics found to be associated with fast growing firms were the middle age group (Age), and other related qualifications (Othquali). There was some evidence reported in earlier literature (Cooper and Gason, 1992; Casson, 1991; Basu and Goswami, 1999) that firms grew faster if they were run by well-educated persons, but in this study this variable was not statistically significant. Most of the entrepreneurs with past management experience (Mgtexp) had an advantage in affecting firm growth, however, the prior sector experiences (Priorexp) were not included. Attempts were made to include a range of variables in measuring the intention to achieve firm growth (Impgrw). Owner-managers' emphasis on revenue turnover and profit margin were related significantly with growth performance, however, the firm's rate of growth was not related to the intention of employment or to assets growth. Motivation (Motive) and aim to expand firm size (Aimsiz) were found to be related significantly to firm growth. Most of the owner-managers were found to have positive mindsets of motive in achieving their firm growth. Surprisingly, not too many owner-managers (60%) had intentions to achieve expansion of their firm size. An attempt was also made to test entrepreneurial style (Entsty) in running their business, but this was not associated significantly with growth in the study.

Firms in the industry normally did not engage in just one kind of business; most of them had more than two or three kinds of businesses/services. This reflects the characteristics of the industry with multiple businesses/services nature. The majority of these businesses were mainly involved in air and ocean freight forwarding, trucking transportation, shipping agencies and warehousing. The firms' nature was correlated highly with their legal status (Legstus). Half of the businesses (52%) were limited companies. These businesses mainly fell into the two extreme categories of highest growth rate and zero or no growth rate. Particularly, most of the sole proprietorship owner-managers were characterised with negative or no growth performance. Further surprisingly, there was no relationship between firm age (Busyrs) and firm growth in our study. There was only evidence shown that the firms aged less than 5 years had rapid growth rates (138.89%). Method of business acquisition (Busacq) was not associated significantly with firm growth.

Plan and objective in business development and strategies are significantly important in association with firm growth. Formal planning and objective has been identified as a primary factor in achieving business success (Bracker and Pearson, 1986). Although formal planning appears to be more characteristic of larger businesses, in this study it was found that many successful SMEs had a formal planning and the objective to replace rivals. Marketing strategies, particularly in quality of product/services (Mkqp), customized/value added service (Mkvas), operating technological advance (Mkota), information system (Mkis) and employee training (Mket) were associated significantly with firm growth. The better the performance of marketing strategies compared to major competitors, the faster the growth of the firm. Most firms generally emphasized cost leadership (Mkcl), however, this was not associated significantly with firm growth. This suggests that cost leadership is not an independent factor in affecting the firm's performance; it should be developed in association with other strategies. Particularly, information advance and employee training play very important roles in operating a well performing firm. The other factors include a range of variables measuring the competitive advantages in marketplace such as product/service pricing (Mkpp), niche market positioning (Mknmp), product differentiation (Mkpd), innovation (Mkin), new market development (Mknmd), and customer relationship (Mkcr). None of these were associated significantly with growth in this equation.

The variables in the last category are mainly in the group of external factors. In this category, we emphasize the impact of economic difficulty (Ecodiff) and government support (Govt) as being important influences on firm growth. With the correlation coefficient result, although not all, most of these types of factors were found not to be correlated significantly. The insignificant dummy variables were, however, retained in the model to demonstrate this fact.

The importance of a multiple regression equation, as has been said, is that it identifies the impact of each influence on growth independently of other influences. A large number of factors acting independently affect firm growth. This was particularly confirmed in the case of characteristics of owner-manager and the nature of firm. The result of regression of the determinants of SME growth is shown in Table 4.12 with 11 variables instead of the original 25 variables. These variables are

plausible in terms of the original conceptualization of firm growth and the results of the regression can give rise to confident and accurate claims about the most important determinants influencing firm growth. Multiple R is reported at 0.505, which implies approximately 50% of the variance with 11 variables in affecting firm growth. This result implies that it is a combination of the regression factors that are the key indicators in pursuing firm growth. In essence, the characteristics of a successful owner-manager should be positively motivated, middle-aged, having a recognised sector qualification and management experience. The legal status of the firm should be in limited form. In terms of business strategies, a fast-growing firm should have a formal planning strategy, a comprehensive marketing strategy, a sophisticated information system and operating technology, and an employee training program.

Table 4. 12 Multiple Regressions of the Determinants of SME Growth, 1998-2003

	Sum of Squares	df	Mean Square	F	Sig.
Regression	56.267	12	4.689	2.250	.017
Residual	164.635	79	2.084		
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Respondent's age	.159	.203	.087	.786	.434
Other qualification	-.037	.465	-.009	-.079	.937
Management experience	-.253	.480	-.079	-.526	.600
Aim to increase the size of business	-.110	.415	-.035	-.264	.792
Motivation	-.094	.415	-.027	-.228	.821
legal status	.405	.239	.229	1.692	.095
Formal business plan	-.054	.470	-.017	-.115	.909
Marketing strategy	.300	.229	.133	1.309	.194
Information system	.091	.477	.029	.191	.849
Operating technology improvement	-.123	.461	-.036	-.266	.791
training programs to employees	-.312	.430	-.100	-.726	.470
(Constant)	2.455	1.630		1.507	.136
No of case:	100				
Multiple R	0.505				
R2	0.255				
Adjusted R2	0.142				
Std. Error	1.444				

4.5.2. THE REVISED REGRESSION EQUATION

The purpose of this study was to develop an approach which will bring together research to examine the relationship between the characteristics of entrepreneurs, the nature of firm, business strategy, external economic factors and small firm growth across a variety of small firms in the logistics industry in Hong Kong. A set of independent variables for small firm growth were revised. The SME growth (GR) was significantly influenced by the following set of variables: Founder of business (EFB); prior management experiences (EPE); motivation (EMF); legal structure (FLS); business planning (SBP); marketing strategy (SMS); technological sophistication (STS) and employee training (SET). After the examination of the relationships of these variables to growth, the following multiple regression equation was revised:

$$\mathbf{GR = \{EFB, EPE, EMF, FLS, SBP, SMS, STS, SET\}}$$

The variables (with sign in parenthesis) are listed below:

- GR = Firm growth (represented by annual growth of employment rate)
- EFB = Founder of business, age only (+)
- EPE = Founder's prior management experience (+)
- EMF = Motivation programs (+)
- FLS = Firm's legal structure, defined as sole proprietorship, partnership and limited company
- SBP = Business planning and objective (+)
- SMS = Marketing strategies, such as niche marketing, costing, product differentiation, and innovation (+)
- STS = Technological sophistication, represents advance technology and information technology (+)
- SET = Employee training (+)

4.6 CONCLUSION

In this chapter, the results of the study have been tabulated and analyzed. The data drawn from the sample of SMEs in the logistics industry and the empirical regression results and the tests of hypotheses have been presented.

The examination of the individual factors was analyzed separately, which yields some useful insights into the nature of the interrelationship between the variables in the model. The characteristics of a successful owner-manager are that he/she should be positively motivated, middle-aged, having a recognised sector qualification and management experience. The legal status of the firm should be in limited form. In terms of business strategies, a fast-growing firm should have a formal planning strategy, a comprehensive marketing strategy, a sophisticated information system and operating technology, and an employee training program.

To explore the findings further, the results and test of the hypotheses will be reported in the next chapter, and their theoretical and practical implications for the SME context will be discussed.

CHAPTER 5 DISCUSSIONS AND IMPLICATIONS

5.1 INTRODUCTION

The primary objective of this study was to understand the determinants of firm growth in SMEs in the logistics industry, and to find out how these factors may have affected the small businesses in the industry. This chapter contains a discussion of the results presented in Chapter 4, and the results are placed within the context of the current academic literature. Finally, the results and test of the hypotheses will be summarized and reported, and their implications for the SME context will be discussed.

5.2 TEST OF HYPOTHESIS

5.2.1. COLLECTIVE CHARACTERISTICS OF OWNER-MANAGER

H1: The characteristics of the owner-manager significantly affect the growth performance in established small firms.

The focus of this section is on the detailed discussion of the individual variables relating to owner-manager characteristics that have been shown to have significant associations with the rate of growth (employment rate) in small firms. The overall aim is to interpret the results of this study and to compare them with the wider literature on small firm growth. In the following sections, owner-manager's age,

qualification level, job experience and management experiences will be examined in turn. Moreover, the motivation factor and the entrepreneur's attitudes to firm growth and firm size are examined since these are considered to be important factors.

Taken as a group, the entrepreneur variables have considerably more explanatory value than the company characteristic variables although neither of these had as significant an impact as the group of business strategy variables. Although some of the owner-manager characteristics variables were found, individually, to be significant to firm growth, gender, education level, prior working experience, employment status, and entrepreneurial style were not found in this study to have important associations with growth performance.

H1a: The gender of the owner-manager significantly affects the growth performance in established small firms.

The owner-manager's gender (Gender) was not associated significantly with firm growth. The 84 male respondents accounted for 82.4% of the total population. Only 18 (17.6%) of respondents were female (Table 5.1). The male owner-managers had a better firm growth performance, at 53.92%, than the female owner-mangers, with only a 16.73% success rate. There were no comparisons made to census data from other sources to attempt to identify whether this proportion of males to females was typical of the general population of SME owner-managers. There was no indication of any correlation between gender and small firm growth as shown in Table 4.1 in Chapter 4; it was found that this hypothesis was not supported.

Table 5. 1 Respondent's Gender Distribution

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid male	84	82.4	82.4	53.92
female	18	17.6	100.0	16.73
Total	102	100.0		

H1b: The age of the owner-manager significantly affects the growth performance in established small firms.

Table 5.2 shows the age (Age) distribution of owner-managers in the survey as well as the mean growth rate for each group. The majority of respondents were middle-aged owner-managers. The sample of age is dominated by two age groups, the 31-40 and 41-50 categories, which represent the middle-aged groups of owner-manager. No data were collected for the age group at or below 20, suggesting that very young age persons are not interested in starting up their own business. The mean value was 3.65 which suggests that the average age of owner-managers participating in the survey was within the 31-40 years range. This particular age represents an older bracket than the average of the population.

Table 5. 2 Respondent's Age Distribution

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid 21-30	8	7.8	7.8	9.71
31-40	38	37.3	45.1	47.44
41-50	38	37.3	82.4	55.40
51-60	18	17.6	100.0	43.92
Total	102	100.0		

The highest growth rate was achieved by owner-managers in the age group of 41-50, followed closely by the 31-40 year group and then the age group of 51-60. This suggests that the middle-aged owner-manager is likely to have better performance in association with firm growth as discussed. In turn, a too young owner-manager, particularly below 30 years of age, is less likely to succeed in business growth. The results indicated a low positive correlation between age and firm growth, and that the most successful business in related to firm growth was operated by the middle-aged owner-manager.

Table 5. 3 Regression of Respondents' Age to Firm Growth

	R	R Square	Adjusted R Square	Std. Error of the Estimate		
	.200	.040	.030	.70863		
Analysis of variance	Sum of Squares	df	Mean Square	F	Sig.	
Regression	2.042	1	2.042	4.067	.046	
Residual	49.211	98	.502			
Variables in the equation	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	.911	.299			3.981	.000
Respondent's age	-.372	.184	-.200		-2.017	.046

The coefficients are statistically significant at 5% level

The coefficient of age was significant at the 5% level with a positive sign (Table 5.3). R square is reported at 0.04 which implies that the age of the owner-managers explained only approximately 4% of the unique variance in affecting firm growth. A significant but very low correlation between entrepreneur age and firm growth was found. This suggests that the older owner-manager had a better performance compared to the younger one in achieving firm growth, with the best performance occurring at middle-age.

To examine further the reasons why entrepreneur's age may have affected firm growth, owner-manager's age was cross-tabulated with other research variables to seek for some related findings (Table 5.4). First, middle-aged owner-managers were found to be more likely to have more other qualifications that may contribute to better performance in firm growth. 81% of older owner-managers (41-50 years old) and 19% of younger owner-managers (31-40 years old) had other qualifications such as membership of recognized organizations in the industry. For the age group below 30 and the group above 50, none had any other relevant qualifications. This suggests that the middle-aged group of owner-managers having other recognized qualification may have better performance in firm growth.

Although experience grows according to age, the analysis indicated that middle-aged owner-managers had better prior sector and management experience. A higher

proportion of middle-aged owner-managers and younger middle-aged owner-managers had prior sector experience: 42% of middle-aged group, 40% of younger middle-aged group, 15% of older aged group and only 3% for the younger group. There were also high proportions of middle-aged owner-managers and younger middle-aged owner-managers having management experience: 45% of the middle-aged group, 35% of the younger middle-aged group, and 20% of the older aged group. However, none of the owner-managers was in the younger group, which suggests that younger owner-managers do not have management experience. The result is not surprising since younger owner-managers have had less time to gain experience, and furthermore, many of the younger owner-managers participating in this study were engaged in the trucking industry, which normally requires less management experience to operate, particularly in very small firms.

Third, there was some link found between age and motivation to grow. 78% of the owner-managers reported positive motivation to achieve firm growth, of whom 36% were in the middle-aged group, 42% in the younger middle-aged group, 17% in the older-aged group, and 5% in the younger group. The middle-aged group of owner-managers appeared to be better motivated to foster firm growth. This group of owner-manager is more likely to be ambitious in aiming to increase the size of business. Nearly half of the middle-aged owner-managers (45%) intended to grow their businesses, compared with less than 2% of the younger owner-managers having the same aim.

Finally, the middle-aged owner-managers were more likely to have formal business plans for achieving firm growth: 39% of the middle aged group and 36% of the younger middle-aged group, compared to 22% of the older-aged group and 3% of the younger-aged group. The middle-aged owner-managers were also more likely to set up objectives for their businesses: 42% of the middle-aged group, 37% of the younger middle-aged group, 17% of the older-aged group and 4% of the younger-aged group. Overall, the data suggests that the middle-aged group of owner-managers appears to have been performing well and that they normally have better qualification, experience, and planning, and are more likely to seek improvements in the way their firms run.

Table 5. 4 Age Crosstabulated with Other Variables

		Other qualification		Total	Percentage
		yes	no		
Respondent's age	21-30	0	8	8	0
	31-40	3	35	38	18.75
	41-50	13	25	38	81.25
	51-60	0	18	18	0
Total		16	86	102	100
		Prior experience		Total	Percentage
		yes	no		
Respondent's age	21-30	3	5	8	3.48
	31-40	34	4	38	39.54
	41-50	36	2	38	41.86
	51-60	13	5	18	15.12
Total		86	16	102	100
		Management experience		Total	Percentage
		yes	no		
Respondent's age	21-30	0	8	8	0
	31-40	22	16	38	34.38
	41-50	29	9	38	45.31
	51-60	13	5	18	20.31
Total		64	38	102	100
		Aim to increase the size of business		Total	Percentage
		yes	no		
Respondent's age	21-30	1	7	8	1.64
	31-40	21	17	38	34.43
	41-50	28	10	38	45.90
	51-60	11	6	17	18.03
Total		61	40	101	100
		Motivation		Total	Percentage
		positive	negative		
Respondent's age	21-30	4	4	8	5.19
	31-40	32	6	38	41.56
	41-50	28	10	38	36.36
	51-60	13	5	18	16.89
Total		77	25	102	100
		Formal business plan		Total	Percentage
		yes	no		
Respondent's age	21-30	2	6	8	3.13
	31-40	23	15	38	35.94
	41-50	25	13	38	39.06
	51-60	14	4	18	21.87
Total		64	38	102	100
		Business objective		Total	Percentage
		yes	no		
Respondent's age	21-30	3	5	8	3.95
	31-40	28	10	38	36.85
	41-50	32	6	38	42.10
	51-60	13	5	18	17.10
Total		76	26	102	100

H1c: The qualification of the owner-manager significantly affects the growth performance in established small firms.

The entrepreneur variables ‘education’ (Educ) and ‘prior sector experience (Priorex)’ were not found to be significant in the study. In studying owner-manager’s education level, data collection was focused on different levels of education from formal academic qualifications obtained at school to professional qualifications gained whilst in work. Low education level seems to be one of the characteristics of the logistics industry, with more than half (56.9%) of owner-managers having completed their formal education at secondary school level (Table 5.5). There were only 18.6% with university graduate, and it is particularly noteworthy that less than 4% of the respondents had received higher education (Postgraduate: 3.9%). This stands out in an industry with a low level of education. However, the owner-managers with higher education levels were found to have the best performance, with more than 100% firm growth rate. The second and third rankings were the owner-managers with secondary school level (53.75%) and the owner-managers with university level (41.46%) respectively.

In spite of their relatively low level of education, there was a sign that their prior sector experience is not useful in securing better firm growth. Although 86 (84.3%) of owner-managers had past experience, there is no evidence of contribution to firm growth (Table 5.5). However, the result indicates that the owner-managers without prior sector experience had better firm growth rates (66.64%) than those owner-managers with prior sector experience.

Entrepreneurs with education and prior sector experience were not significant in the study. There were no indications of correlations between these two variables and small firm growth as shown in Table 4.1 in Chapter 4; it was found that these hypotheses were not supported.

Table 5. 5 Respondent's Education Level and Prior Sector Experience

		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Highest level of education (Valid)	primary school	6	5.9	5.9	6.67
	secondary school	58	56.9	62.7	53.75
	Diploma	15	14.7	77.5	31.52
	degree (university)	19	18.6	96.1	41.46
	postgraduate	4	3.9	100.0	103.13
	Total	102	100.0		
Prior sector experience (Valid)	yes	86	84.3	84.3	43.56
	no	16	15.7	100.0	66.46
	Total	102	100.0		

On the other hand, other qualifications (Othquali) whilst gained at work and prior management experience (Mgtexp) were found to have statistically significant direct impact on firm growth as shown in Table 4.1 in Chapter 4. The other qualification was significantly associated with growth at the 5% level. The coefficient on this variable indicates that the owner-managers had a slight firm growth by 18%. Only 15.7% of owner-managers had other qualification recognition (Table 5.6). The firms run by owner-managers who were members of professional organizations grew by 58.18% over the period whilst others with no other qualifications grew at a slightly lower mean rate of 45.14%. 'Other qualifications' generally refers to the membership of professional associations such as the logistics and transportation organization. The most frequently mentioned were the Chartered Institute of Logistics and Transport, IATA, and FIATA. This suggests that membership of a professional organization is associated with a high degree of practical logistics and transportation competence. The coefficient of other qualification was positively significant at the 5% level. R square is reported at 0.004 which implies that the owner-managers with other qualification explained approximately 0.4% of the unique variance in affecting firm growth. A significant but extremely low correlation between respondent's other qualifications and firm growth was found (Table 5.7).

Table 5. 6 Respondent's Other Qualification and Management Experience

		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Other qualification (Valid)	yes	16	15.7	15.7	58.18
	no	86	84.3	84.3	45.14
	Total	102	100.0	100.0	
Management experience (Valid)	yes	64	62.7	62.7	58.34
	no	38	37.3	100.0	28.30
	Total	102	100.0		

Table 5. 7 Regression of Respondent's Other Qualification to Firm Growth

R	R Square	Adjusted R Square	Std. Error of the Estimate				
.067(a)	.004	-.006	.72157				
Analysis of variance	Sum of Squares	df	Mean Square	F	Sig.		
Regression	.228	1	.228	.439	.509		
Residual	51.025	98	.521				
Variables in the equation		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
(Constant)		.712	.369			1.928	.057
Other qualification		-.130	.197	-.067		-.662	.509

Prior management experience was found to have a strong association with growth, this relationship being significant at the 1% significance level as shown in Table 4.1 in Chapter 4. The coefficient for this variable indicates that the presence of an entrepreneur with past management experience raised the gentle growth rate by 30%. 62.7% of the owner-managers indicated that they had past management experience (Table.5.6). The firms run by owner-managers who had past management experience grew by 58.34% over the period whilst others grew at the mean rate of only 28.3%. R square is reported at 0.041 which implies that the owner-managers with past management experience under study explained approximately 4% of the unique variance in affecting firm growth. Perhaps it should not seem surprising that the correlation between good management skills and growth was extremely low (Table 5.8). A possible generalization of this finding is that it is the level and

appropriateness of management skills to business which influences success in running a small firm.

Table 5. 8 Regression of Respondent's Management Experience

R	R Square	Adjusted R Square	Std. Error of the Estimate			
.203(a)	.041	.031	.70818			
Analysis of variance	Sum of Squares	df	Mean Square	F	Sig.	
Regression	2.104	1	2.104	4.196	.043	
Residual	49.149	98	.502			
Variables in the equation	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	.884	.213			4.149	.000
Management experience	-.300	.147	-.203		-2.048	.043

H1d: The unemployment status of the owner-manager significantly affects the growth performance in established small firms.

H1e: The entrepreneurial style of the owner-manager significantly affects the growth performance in established small firms.

Measurement of the employment status of the respondents in the study found that a big majority (88.2%) had been fully employed at the time of starting their businesses. Only 11.8% of the respondents had been unemployed (Table 5.9). There is no indication of relationship between unemployment push and self-employment with firm growth. In Chapter 4, it has been found that this hypothesis was not supported. Unemployment push is not a factor associated with firm growth.

Table 5. 9 Respondent's Unemployment Status and Entrepreneurial Style

		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Unemployment push	yes	12	11.8	11.8	33.92
	no	90	88.2	100.0	49.04
	Total	102	100.0		
Entrepreneurial style	opportunist	31	30.7	30.7	45.02
	lifestyle	62	61.4	92.1	51.86
	accidental	6	5.9	98.0	-14.00
	other	2	2.0	100.0	46.69
	Total	101	100.0		
Missing	NA	1			
Total		102			

Consistent with unemployment push results, there was also no indication of any relationship between entrepreneurial style and firm growth. In Chapter 4, it has been found that this hypothesis was not supported. Particularly, only 6 respondents (5.9%) were accidental entrepreneurial styles, who were ‘pushed’ into their own business through unemployment or redundancy (Table 5.9). The majority of respondents were in the categories of lifestyle (61.4%) or opportunist style (30.7%). These show that the entrepreneurs were ‘pulled’ to build up their businesses by applying their experience or by pursuing their identified opportunity. Entrepreneurs were motivated by being in control of deciding the nature of the work they undertake, to which they can apply their specialist knowledge and develop their expertise.

H1f: The motivation for ownership of the owner-manager significantly affects the growth performance in established small firms.

Table 5.10 lists the factors the respondents emphasized as motivating them to run their own businesses. The hypothesis is supported since those individuals beginning with positive motivations were found to be more likely to establish businesses which subsequently grew faster than those with negative motivations. It is not surprising that the majority of respondents (75.5%) were positively motivated, and only 24.5%

of respondents were forced by negative factors to run their businesses. It is also expected that a positive motivation is more likely to establish a business which subsequently grows faster than a negative motivation. Successful owner-mangers participating in this study were ‘pulled’ by their desire and a higher growth rate of 56.42 was achieved by this group. However, a success rate of only 18.12% was recorded for those with a ‘push’ factor of negative motivation.

Table 5. 10 Respondent's Motivation for Ownership

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid positive motivation	77	75.5	75.5	56.42
negative motivation	25	24.5	100.0	18.12
Total	102	100.0		
Positive motivation		Negative motivation		
financial betterment	24.66%	by chance	17.65%	
previous business experience	20.55%	dissatisfaction of current employment	17.65%	
greater personal freedom and control	19.18%	inability to find salaried employment	17.65%	
best use of expertise	15.07%	underpaid salaried work	14.71%	
self actualization	9.59%	threat of actual unemployment	11.76%	
niche market identification	4.79%	redundancy	8.82%	
higher social status	2.74%	inherited	8.82%	
high growth potential	2.05%	other	2.94%	
other	1.37%			
Total	100.00%	Total	100.00%	

Financial betterment was the most commonly mentioned motivational factor, mentioned by about 24.66% of the positive respondents. These respondents saw their businesses primarily as means of making more money. This indicates that small enterprise can be particularly rewarding in financial terms. Better use of previous business experience (20.55%) was obtained the second-highest ranking. These respondents had much confidence in expressing their own experiences which provided them with job satisfaction. Contrary to the popular stereotype of the entrepreneur as profit-oriented, the pursuit of greater personal freedom and control (19.18%) was rated as another important factor to attract people to become self-

employed. The general thinking behind the entrepreneurs' decision to be self-employed is that they have much freedom to express their own beliefs in running their businesses.

Somewhat unexpectedly, the factor of niche market identification (4.79%) was rated nearly the last, just ranking before higher social status (2.74%) and high growth potential (2.05%). Such a response suggests that it is not alerted to new opportunities for innovation in general, but it may mean that innovation or new idea penetration are not commonly happened in logistics industry.

As expected, the factors of dissatisfaction with current employment and inability to find salaried employment were the highest rated aspects of negative motivation, accounting for approximately 17.65% of the responses. Those entrepreneurs were focused mainly on the return of their own benefits. These factors were followed by underpaid salaried work (14.71%), threat of actual unemployment (11.76%) and redundancy (8.82%). Quite a number of the respondents gave the reason that they were forced to seek economic survival. Finally, there were some respondents who mentioned the factor of inheritance (8.82%). It seems less likely that these respondents would have been motivated by personal prospects and autonomy.

The coefficient of motivation was found to be significant at the 5% level (Table 5.11). R square is reported at 0.052 which implies that the motivation factor under study explains approximately 5% of the unique variance in affecting firm growth. A significant but very low correlation was found between entrepreneur motivation and firm growth. This suggests that the motivated owner-manager has a better performance in achieving firm growth.

Table 5. 11 Regression of Respondent's Motivation for Ownership to Firm Growth

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.228(a)	.052	.043	.70406		
Sum of Squares		df	Mean Square	F	Sig.
Regression		1	2.675	5.396	.022
Residual		98	.496		
Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
B	Std. Error	Beta			
(Constant)	.947	.216	4.381	.000	
Motivation	-.383	.165	-.228	-2.323	.022

As can be seen from Table 5.12, 60.4% of owner-managers had aimed to increase their firm size and 39.6% of owner-managers had no intention to increase their firm size. Owner-managers who aimed to increase firm size tended to desire to grow (52.59%) with slightly better performance. One piece of data is missing from the study. R square is reported at 0.01 which implies that the factor of aiming to increase firm size explained approximately 1% of the unique variance in affecting firm growth. The coefficient of aim to increase firm size was significant at the 5% level (Table 5.13) with a very low correlation. This indicates that the owner-managers aiming to increase firm size had better performance in achieving firm growth.

Table 5. 12 Respondent's Aim to Increase Firm Size and Importance to Firm Growth

Aim to increase firm size		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)		
Valid	yes	61	60.4	60.4	52.59		
	no	40	39.6	100.0	37.62		
	Total	101	100.0				
Missing	NA	1					
Total		102					
Importance to firm growth		Least important	4 th important	3 rd important	2 nd important	Most important	Total
Employment		6	21	59	14	2	102
Turnover**		1	5	30	47	19	102
Profit**		1	5	21	49	26	102
Total assets		1	20	53	21	7	102

** indicates that the significant level is at 0.01

Table 5. 13 Regression of Respondent's Aim to Increase Firm Size to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate		
.102(a)	.010		.000	.72113		
Sum of Squares		<i>df</i>	Mean Square	<i>F</i>	Sig.	
Regression		.530	1	.530	1.018	.315(a)
Residual		50.442	97	.520		
Unstandardized Coefficients		Standardized Coefficients		<i>t</i>	Sig.	
B		Std. Error		Beta		
(Constant)	.676	.219		3.084	.003	
Aim to increase the size of business	-1.50	.148		-.102	-1.009	.315

Asking respondents if they aimed to achieve growth is a rather general question. More precise questions about whether the reasons for desired growth were focused on profits, turnover, assets and employment proved to be more revealing. Respondents were asked to rank, on a scale of one to five, the importance of growth in turnover, assets, employment and profits. The frequencies with which these contributed to growth rate are shown in Table 5.12. However, in the study of the owner-manager's reasons for aspiring to firm growth, firm size was the lowest contributor. Of the three factors, profit making was the factor that made the greatest contribution to growth. This indicates that owner-managers rated growth in profits as a highly important reason to increase their growth rate. These variables were associated positively with firm growth and were statistically significant (see Table 4.1 in Chapter 4). Table 5.14 and Table 5.15 show that R square are reported at 0.079 and 0.127 for the factor of important of turnover and profit under study explained approximately 8% and 13% of these unique variances in affecting firm growth. The importance of turnover and profit making were positively correlated to firm growth at the 1% level. Profit growth and turnover growth were seen as being of greater importance.

Table 5. 14 Regression of the Importance of Turnover to Firm Growth

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.281(a)	.079	.069	.69413		
Sum of Squares		<i>df</i>	Mean Square	<i>F</i>	Sig.
Regression	4.036	1	4.036	8.376	.005(a)
Residual	47.218	98	.482		
Unstandardized Coefficients		Standardized Coefficients		<i>t</i>	Sig.
	B	Std. Error	Beta		
(Constant)	-.423	.317		-1.335	.185
The importance of turnover to growth	.239	.083	.281	2.894	.005

Table 5. 15 Regression of the Respondent's Importance of Profit to Firm Growth

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.356(a)	.127	.118	.67580		
Sum of Squares		<i>df</i>	Mean Square	<i>F</i>	Sig.
Regression	6.496	1	6.496	14.224	.000(a)
Residual	44.757	98	.457		
Unstandardized Coefficients		Standardized Coefficients		<i>t</i>	Sig.
	B	Std. Error	Beta		
(Constant)	-.691	.316		-2.189	.031
The importance of profit to growth	.298	.079	.356	3.771	.000

5.2.2. COLLECTIVE CHARACTERISTICS OF THE FIRM

H2: The nature of firm significantly affects the growth performance in established small firms.

The broad sector in which the firm operates seems to have some influence on growth, particularly in terms of business types and legal status. However, the other factors such as firm size, length of business and method of acquisition, in aggregate, that

appeared in the model, indicated no relationship with firm growth. Further to the study on the relationship between firm size and firm age, the result was correlated significantly.

H2a: The size of firm significantly affects the growth performance in established small firms.

Table 5.16 shows the distribution of employment size; the category of 11-25 employees accounts for 38% of the sample. The next highest was the category of 6-10 employees having 34% of the population. 23% of firms had less than 6 employees. There were only 5% of firms in the study having more than 26 employees. So, 95% of the SMEs sampled have less than 26 persons in the employment.

The results do show that the logistics sector in Hong Kong had a considerable share of small solely owned business types (23%), and a larger share of 72% of SMEs with 6-25 employees. However, no matter whether firms have different sizes; they had the same level of growth rate. Most firms had an average of 40-50% growth rate, except for the category of 26-50 employees (3% of the population), in which the growth rate was 20%. In this study, it has been observed that there is no indication of relationship in firm size with respect to growth rate. According to the results presented in Table 4.1 in Chapter 4, it has been found that this hypothesis was not supported.

Table 5. 16 Number of Employment in 1998 in Category

		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	1-5	23	23.0	23.0	42.97
	6-10	34	34.0	57.0	49.78
	11-25	38	38.0	95.0	49.81
	26-50	3	3.0	98.0	20.00
	more than 50	2	2.0	100.0	45.24
	Total	100	100.0		
Missing	NA	2			
Total		102			

H2b: The age of firm significantly affects the growth performance in established small firms.

To ensure that the survey covered firms with meaningful growth outcome, only firms that had been operating for at least three years were included. As a result, the majority of firms surveyed fell into the category of 6-10 years of operation (Table 5.17). Less than 10% of firms were more than 16 years of age, which represents the short life characteristics of small firms, in general. As others have found, there was no indication of the growth pattern that younger firms have better growth rates than older firms. Age of business was found to be independent and had no significant correlation with firm growth in this study. Older firms may not benefit from reputation effects or better experiences which can affect performance.

Table 5. 17 Number of Years of Business in Category

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid 4-5	8	7.8	7.8	138.89
6-10	65	63.7	71.6	38.07
11-15	20	19.6	91.2	53.73
16-20	6	5.9	97.1	38.88
more than 20	3	2.9	100.0	35.71
Total	102	100.0		

The only evidence shown was that the firms established for less than 5 years had a rapid growth rate (138.89%). This outcome supports Storey’s (1994) effect of minimum efficient scale (MES) theory. The general pattern of this theory is that younger firms grow more rapidly than older firms. Due to the effect of minimum efficient scale (MES), young firms are more likely to achieve significant growth. In this study, it has been observed that there was no indication of relationship between firm age and growth rate. Table 4.1 in Chapter 4 indicates that this hypothesis was not supported

H2c: The legal status of firm significantly affects the growth performance in established small firms.

Data shown in Table 5.18 can be used to ascertain the legal status of firms in our study. More than half of firms studied (52%) were limited legal firms while 28.4% were sole proprietorships and 19.6% were partnerships. The proportion of limited liability is much higher than the other two forms. As a group, the sole proprietorship is rather weak in competitive resources and it appears from the data that this group was struggling for survival through small scale ownership in the industry. This portion of owners had a very low rate of 12.85% in firm growth. Partnerships, being pooled with better resources, had a relatively higher rate of 26.97% in firm growth. Although they had a better performance compared to sole proprietorship, it was still at a lower level of growth rate.

Table 5. 18 Legal Status of Firms

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid sole proprietorship	29	28.4	28.4	12.85
partnership	20	19.6	19.6	26.97
limited	53	52.0	52.0	74.72
Total	102	100.0	100.0	

In contrast, those who became limited liability companies, thus being better-endowed in terms of human, capital and other resources, had the highest successful growth rate of 74.72%. The positive correlation with legal status implies that the limited liability form encourages the growth of firms. There was a positive relationship between the limited liability form and the firm growth. This variable was associated positively with firm growth and was statistically significant (see Table 4.1 in Chapter 4). Table 5.19 shows that R square is reported at 0.149 for the factor of legal status, explaining approximately 15% of this unique variance in affecting firm growth. This indicates that the legal status was relatively high significant to firm growth at the 1% level. The limited company grew more rapidly than sole proprietorships or partnerships.

Limited companies have the prime benefit of limited liability and credibility in enhancing their business capability.

Table 5. 19 Regression of Legal Status to Firm Growth

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.387(a)	.149	.141	.66698		
Sum of Squares		df	Mean Square	F	Sig.
Regression	7.657	1	7.657	17.213	.000
Residual	43.596	98	.445		
Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
B	Std. Error	Beta			
(Constant)	-.236	.183	1.289	.200	
legal status	.319	.077	.387	4.149	.000

H2d: The method of business acquired for a firm significantly affects the growth performance in established small firms.

Methods of acquiring a business are normally divided into three categories: purchased it, inherited it or founded it. In our study, the most common method of business acquisition was founding. 84 firms were founded by the owner-managers (82.4%). 15 firms were purchased from another (14.7%) and only 3 firms were inherited (2.9%). No cases were missing from the ownership data. Firms purchased had the best growth rate of 72.22%, firms founded had the second best growth rate of 43.16%, and firms inherited had 33.33% of mean growth rate. This result reflects that firms purchased were comparatively successful compared to those firms founded or inherited (Table 5.20). However, there is no indication of relationship between the methods of business acquired and firm growth. Table 4.1 in Chapter 4 shows that this hypothesis was not supported.

Table 5. 20 Methods of Business Acquisition

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid purchased it	15	14.7	14.7	72.22
inherited it	3	2.9	17.6	33.33
founded it	84	82.4	100.0	43.16
Total	102	100.0		

5.2.3. COLLECTIVE CHARACTERISTICS OF BUSINESS STRATEGIES

H3: The company strategies significantly affect the growth performance in established small firms.

The purpose of this hypothesis was to examine the way in which the choice of business strategies can influence the rate of growth within small firms. Certain business strategies will impact on growth regardless of the type of owner-manager running the firm and, in the same way, certain owner-managers will do better than others irrespective of the business strategies they pursue. It is also quite likely that some strategies are more suited to some firms than to others. Nevertheless, the interpretation of the model is complex and the aim in this section is to explore in more detail the impact of business strategies on small firm growth.

H3a: The planning strategies of the company significantly affect the growth performance in established small firms.

Although only two of the studies in Storey's (1994) report specifically examined the impact of planning upon firm growth, planning was tested in our study showing that it had significant impact on firm growth. Sixty-four firms had business plans for operating their business (62.7%) whereas there were still 38 firms without business plans (37.3%). No firm was missing from this sample (Table 5.21). Firms with formal business plans had better performances in firm growth, accounting for 57.27% of the mean growth rate, however, those firms without business plans

accounted for only 30.13% of the growth rate. This indicates that firms having business plan were more successful in achieving firm growth. The percentage of business plans achieved was distributed evenly. This shows that not all the firms were able to execute their planning in entirety throughout the year, and that only part of the plans could be achieved. However, if the percentage of plan achieved amounts to more than 50%, it can contribute to a better mean growth rate at 111.54%. Although no firm can execute the achievement of entire planning, the information of this planning can provide a measurement scale of achievement and a reference for future development.

Table 5. 21 Formal Business Plan and Percentage of Plan Achieved

Formal business plan	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
yes	64	62.7	62.7	57.27
no	38	37.3	100.0	30.13
Total	102	100.0		
% achieved				
1-20%	12	17.9	17.9	33.78
21-40%	14	20.9	38.8	42.30
41-60%	15	22.4	61.2	111.54
61-80%	16	23.9	85.1	54.34
81-100%	10	14.9	100.0	54.83
Total	67	100.0		
Missing	NA			
Total	102			

As seen in Table 5.22, 76 firms had business objectives in operating their businesses (74.5%) whereas there were only 26 firms without objectives (25.5%). No firm's data were missing for this item. Consistent with business plan results, firms with business objectives had better performance in firm growth, accounting for 56.46% of the mean growth rate, however, those firms without business objectives could only account for 19.52% of the success rate. This indicated that firms having business objectives were more successful in achieving firm growth. The percentage of objective achieved was also evenly distributed, however most of the firms' objectives were only partially achieved. If more than 50% of the objective is

achieved, the growth rate can be better at 72%. As for business planning, there was no firm that reported achievement of its objectives in entirety, however the information about objectives can provide a measurement scale for achievement and, at the same time, for future decision-making.

Table 5. 22 Business Objectives and Percentage of Objective Achieved

Business Objectives	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
yes	76	74.5	74.5	56.46
no	26	25.5	100.0	19.52
Total	102	100.0		
% achieved				
1-20%	19	25.3	25.3	36.70
21-40%	19	25.3	50.7	64.45
41-60%	16	21.3	72.0	72.71
61-80%	10	13.3	85.3	54.12
81-100%	11	14.7	100.0	59.39
Total	75	100.0		
Missing				
NAP	27			
Total	102			

It is important to examine the stated business planning and objectives of the owner-manager because of the light this may shed on overall company performance. These are the key factors in determining the success or the failure of firm growth. R square are reported at 0.034 and 0.05 which implies that the planning and objective under study explained approximately 3% and 0.5% of the unique variances in affecting firm growth. Regression results indicated that these two factors (plan and objective) were associated positively and significantly with firm growth (0.5% level) with extremely low correlations (Table 5.23 and Table 5.24). Although these correlations were low, it was found that planning and objective were important factors contributing to firm growth.

Table 5. 23 Regression of Business Plan to Firm Growth

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.183(a)	.034	.024	.71096		
	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.717	1	1.717	3.397	.068(a)
Residual	49.536	98	.505		
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.844	.214		3.946	.000
Formal business plan	-.271	.147	-.183	-1.843	.068

Table 5. 24 Regression of Business Objective to Firm Growth

R	R Square	Adjusted R Square	Std. Error of the Estimate		
.223(a)	.050	.040	.70490		
	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.558	1	2.558	5.149	.025(a)
Residual	48.695	98	.497		
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.934	.215		4.337	.000
Business objective	-.369	.163	-.223	-2.269	.025

H3b: The marketing strategies of the company significantly affect the growth performance in established small firms.

Table 5.25 shows that 79.4% of firms accounted for cost leadership, niche marketing was second at 11.3%, and innovation was the least at only 7.2%. 5 pieces of data were missing for this item. Cost leadership (contributing 40.63% of firm growth) was found to be the fundamental marketing strategy for achieving firm growth, particularly in the logistics industry. Niche marketing comes to the second important factor, accounting for 34.57% of firm growth rate. Although cost leadership and

niche marketing were the fundamental market strategies in market competition, firms with innovation strategy had better performance in firm growth at 78.4%.

Table 5. 25 Marketing Strategies of Firms

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid cost leadership	77	79.4	79.4	40.63
niche marketing	11	11.3	90.7	34.57
innovation	7	7.2	97.9	78.40
other	2	2.1	100.0	50.00
Total	97	100.0		
Missing DK	5			
Total	102			

On this finding, R square is reported at 0.011, which implies that the marketing strategies under study explained only approximately 1% of the unique variance in affecting firm growth. Marketing strategies are associated positively and significantly with firm growth at 5% level and a significant but extremely low correlation was found (Table 5.26). It was not surprising that cost leadership was found to be the most important factor in achieving business success, particularly in the logistics industry.

Table 5. 26 Regression of Marketing Strategies to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.104(a)	.011		.000	.65108	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	.428	1	.428	1.009	.318(a)
Residual	39.423	93	.424		
Total	39.851	94			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.302	.143		2.119	.037
Marketing strategy	.096	.095	.104	1.004	.318

In relation to the effects of marketing competitive strategies on firm growth, Table 5.27 shows the characteristics of strategies in marketing competition. Owner-managers focused on cost minimization, pricing, service quality, value-added service, and customer relationship, particularly on cost leadership and customer relationship. This is another piece of evidence that cost leadership and customer relationship are the key marketing strategies adopted by most of the small logistics firm leaders to achieve more business. The price of product/service, quality of product/service and customized/value added service are other important considerations in gaining market position in the competitive marketplace.

Table 5. 27 Marketing Competition in Logistics Industry in Hong Kong

In Percentage (%)	Company' s position compared to the major competitors					
	Lowest	Lower	Same Level	Higher	Highest	Total
Cost leadership	0	9.8	23.5	51.00	15.7	100
Price of product/service	0	14.9	44.6	30.7	9.9	100
Niche market positioning	1.0	16.8	60.4	17.8	4.0	100
Quality of product/service	0	17.0	41.0	30.0	12.0	100
Customized/value added service	0	19.6	38.2	27.5	14.7	100
Product differentiation	4.0	32.7	49.5	10.9	3.0	100
Innovation	3.1	31.6	50.0	13.3	2.0	100
New product/service introduction	2.0	29.3	55.6	9.1	4.0	100
New market development	4.0	21.0	52.0	19.0	4.0	100
Customer relationship	1.0	4.0	20.2	50.5	24.3	100
Operating technological advance	7.2	45.4	39.2	6.2	2.1	100
Information system	12.2	36.7	41.8	8.2	1.1	100
Employee training	17.0	38.0	38.0	5.0	2.0	100

Referring back to Table 4.1 in Chapter 4, it showed that only part of the factors had significant results. The significant results included quality product/service ($p<0.01$), value-added service ($p<0.01$), operating technological advancement ($p<0.05$), information system ($p<0.01$), and employee training ($p<0.01$). It was found that

under the high competitive environments, the successful firms were those which placed a greater emphasis upon these factors, having greater contribution to firm growth (Table 5.28-5.32). However, other factors were found to be non-significantly associated with firm growth. The list includes cost leadership, price of product/service, niche market positioning, product differentiation, innovation, new product/service introduction, new market development and customer relationship. Hence parts of the above factors on competition may give insights to the researcher about marketing strategies in the marketplace.

Table 5.28 shows that the quality of products/services had a highly significant relationship to firm growth at the 1% level, with a slightly correlation of 0.128. This indicates that quality of product/service is an important factor in contributing to the success of business strategy. Apart from the importance of cost leadership, the quality of product/service is also an important issue improving the quality of performance, particularly in the logistics industry.

Table 5. 28 Regression of Quality of Product/Service to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.358(a)	.128		.120	.67710	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.557	1	6.557	14.302	.000(a)
Residual	44.471	97	.458		
Total	51.028	98			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.491	.265		-1.855	.067
Quality of product/service	.289	.076	.358	3.782	.000

Table 5.29 shows that the customized/value added service had a highly significant relationship to firm growth at the 1% level, with a low correlation of 0.093. This indicates that customized/value added service was also an important factor in

contributing to the success of business strategy. As for the importance of the quality of product/service, the additional service provided to customers was also an important issue enriching the variety of service. In order to survive and to retain their customers in the competitive marketplace, provision of special value added service to their existing customers is required.

Table 5. 29 Regression of Customized/Value Added Service to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.306(a)	.093		.084	.68857	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.789	1	4.789	10.100	.002(a)
Residual	46.465	98	.474		
Total	51.253	99			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.305	.254		-1.200	.233
Customized/value added service	.233	.073	.306	3.178	.002

Table 5.30 shows that the operating technology advancement was found to be significant to firm growth at the 5% level, with an extremely low correlation of 0.029. This indicates that operating technology advancement is another factor in contributing to the success of business strategy although the correlation result is low. Investment in technology, particularly in operating technological improvement, is a focus in the industry. Technology change in recent years has enabled practitioners in the industry to improve their operating capability in order to prove the service level in the competitive marketplace.

Table 5. 30 Regression of Operating Technological Advance to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.171(a)	.029		.019	.72515	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.487	1	1.487	2.828	.096(a)
Residual	49.430	94	.526		
Total	50.917	95			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.084	.242		.347	.729
Operating technological advance	.155	.092	.171	1.682	.096

Consistent with operating technological advancement, information technology is also an important factor in contributing to firm performance. Table 5.31 shows that the information system was a highly significant contributor to firm growth at the 1% level. However, only a low correlation at 0.026 was found. This indicates that information systems can enhance the efficiency of communication and operating capability between practitioners and customers.

Table 5. 31 Regression of Information System to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.160(a)	.026		.015	.72296	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.301	1	1.301	2.489	.118(a)
Residual	49.654	95	.523		
Total	50.955	96			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.131	.229		.574	.567
Information system	.138	.088	.160	1.578	.118

Table 5.32 shows that employee training was highly significant to firm growth at the 1% level, a rather low correlation at 0.105 being found. This indicates that improving employee's quality is still an important factor contributing to the success of business performance. Most companies in the past did not provide related training programs to their employees due to resource constraints such as time and money. However, a firm may find it difficult to survive without appropriate training and its growth potential may also be restricted.

Table 5. 32 Regression of Employee Training to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.324(a)	.105		.096	.68624	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.348	1	5.348	11.356	.001(a)
Residual	45.680	97	.471		
Total	51.028	98			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.145	.197		-.735	.464
Employee training	.264	.078	.324	3.370	.001

H3c: The IT capacity of the company significantly affects the growth performance in established small firms.

H3d: The operation technology improvement of the company significantly affects the growth performance in established small firms.

It was found that these two factors were correlated highly and positively with firm growth. The hypotheses can be supported at the 1% significance level. The evidence has suggested that more technological sophisticated businesses are likely to grow more rapidly than those with lower levels of technological sophistication.

Table 5.33 shows that only a little more than half of the firms sampled (52.9%) had invested in information systems, with 47.1% not interested in information technology. The mean growth rate was better for the firms having investments in information technology, accounting for 57.28% of the growth, while the firms without investments in information technology only accounted for 35.89% of the growth rate.

Table 5. 33 Information System of Firms

	Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid yes	54	52.9	52.9	57.28
no	48	47.1	100.0	35.89
Total	102	100.0		

Table 5.34 shows that the presence of an information system is correlated highly and positively with firm growth. R square is reported at 0.022 which implies that the information system under study explained approximately 2% of the unique variance in affecting firm growth. The hypothesis is supported at the 1% significance level. A significant but very low correlation between IT capacity and firm growth was found. This indicates that the more technologically sophisticated businesses are likely to grow more rapidly than those with lower levels of technological sophistication.

Table 5. 34 Regression of Information System to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.149(a)	.022		.012	.71509	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.140	1	1.140	2.229	.139(a)
Residual	50.113	98	.511		
Total	51.253	99			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.787	.222		3.537	.001
Information system	-.214	.143	-.149	-1.493	.139

Table 5.35 shows that a high proportion of small firms focused on operation technology improvement (72.5%). Only 27.5% were not interested in operation technology. Firms with operation technology advancement had a better growth rate (58.11%), whilst those without operation technology advancement had only 19.25% growth rate. This indicates that the finding may be generalised to give evidence of the importance of technology advancement. The firms that were surveyed in this study described different ways in which they had improved operation technology, with a fairly even distribution of these methods. Operating process was the most frequently mentioned (37.1%). Another three factors (equipment, facilities and technical know-how) were all rated similarly between 18.5% and 22.1%. Of these four methods, technical know-how was the greatest contributor to firm growth, with an extremely high rate of 89.52%. This was followed by facilities (64.75%), then operating process (50.69%), and finally equipment (36.53%).

Table 5. 35 Operation Technology Improvement and Way of Operating Technology Improvement

Operation technology improvement		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	yes	74	72.5	72.5	58.11
	no	28	27.5	100.0	19.25
	Total	102	100.0		
Way of operation technology improvement		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	equipment	24	21.2	21.2	36.53
	facilities	21	18.5	39.7	64.75
	technical know-how	25	22.1	61.8	89.52
	operating process	42	37.1	98.9	50.69
	Others	1	1.1	100.0	66.67
	Total	113	100.0		
Missing	DK	2			
	NA	89			
	Total	91			
Total		204			

Table 5.36 shows that operating technology improvement was correlated highly and positively with firm growth. R square is reported at 0.059 which implies that the operating technology improvement under study explained approximately 6% of the unique variance in affecting firm growth. The hypothesis is supported at the 1% significance level. A significant but low correlation between operation technology improvement and firm growth was found. This indicates that technical know-how is very important in affecting firm growth in the logistics industry.

Table 5. 36 Regression of Operating Technology Improvement to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.244(a)	.059		.050	.70137	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.044	1	3.044	6.189	.015(a)
Residual	48.209	98	.492		
Total	51.253	99			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.970	.212		4.576	.000
Operating technology improvement	-.389	.156	-.244	-2.488	.015

H3e: The training program of the company significantly affects the growth performance in established small firms.

Table 5.37 shows that firms within the industry are really cost conscious, with less than half of the firms participating in this study (47%) having provided training programs to their employees. The remaining 53% firms had no training programs provided to their employees. Two pieces of data were missing for this item.

Although the percentage of firms providing training program to employees was rather low, the mean growth rate was high at 73.56%. This demonstrates the likelihood that firms undertaking training programs for their employees may contribute to very good performance in firm growth. Aware of the risk of failure, those firms with training programs understand the importance of making long-term investments in employee training. Half of the firms reported having systematic internal training (50%) and the other half (50%) had no internal training provided to their employees. Funding for external training to employees appears to be even less important to small firms, as only 37.1% of the surveyed firms had provided training funding to employees. Although the rate was typically low, the results of growth rates for both internal and external training were rather highly recorded at 76.48% and 75.76% respectively. This indicates that growing firms may be more likely to

perceive the skill base of their enterprise to be a competitive advantage as they are expected to encourage employee training to a greater extent than slow-growth firms.

Table 5. 37 Training Programs to Employees

Training Programs		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	yes	47	47.0	47.0	73.59
	no	53	53.0	100.0	25.34
	Total	100	100.0		
Missing	NA	2			
Total		102			
Internal training		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	yes	35	50.0	50.0	76.48
	no	35	50.0	100.0	35.19
	Total	70	100.0		
Missing	NA	32			
Total		102			
External training		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	yes	26	37.1	37.1	75.76
	no	44	62.9	100.0	45.21
	Total	70	100.0		
Missing	NA	32			
Total		102			

Referring back to Table 4.1, provision of training programs to employee was the best factor with a highly significant level of 0.01%. R is reported at 0.112 which implies that the provision of training programs to employees explained approximately 11% of the unique variance in affecting firm growth as shown in Table. 5.38. There was an indication of a positive relationship between training program provision to employees and firm growth. A significance level with a relative low correlation was found. This indicates that employee training was significantly associated with firm growth. Although not many firms reported investing in employee training this study, it was found that the firms providing employee training were more likely to achieve significantly higher growth rates than those which did not.

Table 5. 38 Regression of Training Programs to Employees to Firm Growth

R	R Square		Adjusted R Square	Std. Error of the Estimate	
.334(a)	.112		.102	.68669	
	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.683	1	5.683	12.051	.001(a)
Residual	45.268	96	.472		
Total	50.950	97			
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.218	.224		5.445	.000
training programs to employees	-.483	.139	-.334	-3.471	.001

5.2.4. EXTERNAL FACTORS

H4: The external factors significantly affect the growth performance in established small firms.

The external factors are in the focus of this section, particularly in terms of economic difficulty and the degree of government support especially in this recession period. Unexpectedly, when these two factors were tested, there was no indication of any relationship between economic difficulty and government support with firm growth. Referring back to Table 4.1 in Chapter 4, it can be seen that they were not significantly associated as these two hypotheses were not supported.

H4a: The economic difficulty factor significantly affects the growth performance in established small firms.

Although there was no relationship found between economic difficulty and firm growth, Table 5.39 shows that most of the firms (78.4%) found that they were being

affected by economic difficulty. Those firms being affected by economic difficulty accounted for 44.88% of the mean growth rate and those firms not affected by economic difficulty accounted for 60.10% of the mean growth rate. This indicates that those firms not affected by economic difficulty had a higher growth rate than those firms that were affected by economic difficulty. Within those firms being affected by economic difficulty, 60% reported being more and seriously affected. Only the minority of firms (39%) reported being affected by other factors. These factors include the change of market location in China, internal financial difficulty, the poor management of business and the high competition in the market. Surprisingly, there was no evidence indicating the Asian economic crisis having any effect on firm growth, particularly in the logistics industry in Hong Kong.

Table 5. 39 Economic Difficulty Affection and Level of Economic Difficulty Affection

Economic Difficulty		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	yes	80	78.4	78.4	44.88
	No	21	20.6	99.0	60.10
	NA	1	1.0	100.0	
	Total	102	100.0		
Valid	least affect	1	1.2	1.2	28.57
	less affect	6	7.2	8.4	76.76
	fair affect	27	32.5	41.0	54.96
	more affect	25	30.1	71.1	45.65
	seriously affect	24	28.9	100.0	26.62
	Total	83	100.0		
Missing	NA	19			
Total		102			
Other External Factors		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	Yes	39	39.4	39.4	58.84
	No	60	60.6	100.0	37.38
	Total	99	100.0		
Missing	NA	3			
Total		102			

H4b: The support of government significantly affects the growth performance in established small firms.

Table 5.40 shows that only 18 (17.6%) firms had received government support. The majority of the businesses in the logistics industry are had not received any support from the government (82.4%). This can be generalized to support the concept still persisting in Hong Kong in that small business do not receive any support from the government. More than 70% of firms reported having received less or even minimum support from the government.

One of the most popular sources of funds in small firms is government funds and subsidiaries. It is perhaps odd that the numbers of respondents receiving government funds or subsidiaries was extremely low at 11.8%, and that more than 88% of the small firms do not receive any assistance from government. 11 firms received government assistance and 91 firms did not receive any government assistance. Of those firms receiving government funds or subsidiaries, the most popular kinds of assistance were the application of low interest loans, accounting for 36.5% (4 firms only) and technical training, accounting for 18.2% (2 firms only). The other types of assistance included public facilities support, management consultancy/ information, market development and policy/regulation/law support.

Table 5. 40 Government Support and Assistance

Government Support		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	Yes	18	17.6	17.6	59.82
	No	84	82.4	100.0	44.46
	Total	102	100.0		
Valid	least supportive	36	35.3	35.3	49.27
	Less supportive	40	39.2	74.5	42.72
	neutral supportive	22	21.6	96.1	50.30
	more supportive	4	3.9	100.0	58.34
	Total	102	100.0		
Government Assistance		Frequency	Valid Percent	Cumulative Percent	Mean Growth Rate (%)
Valid	Yes	12	11.8	11.8	32.65
	No	90	88.2	100.0	49.22
	Total	102	100.0		
Valid	Low interest loans	4	36.4	36.4	12.12
	technical training	2	18.2	54.5	66.67
	public facilities support	1	9.1	63.6	50.00
	Management consultancy/information	1	9.1	72.7	50.00
	market development	1	9.1	81.8	-40.00
	policy/regulation/law	1	9.1	90.9	66.67
	other	1	9.1	100.0	33.33
	Total	11	100.0		
Missing	NA	91			
Total		102			

5.3 SUMMARY OF HYPOTHESES TEST

In order to give a clear overview of the outcomes of the hypotheses testing, a summary of the initial results is presented in Table 5.41.

Table 5. 41 Results of Hypotheses Testing

H1:	The characteristics of the owner-manager significantly affect the growth performance in established small firms.	
	Respondent's gender	Not supported
	Respondent's age	Supported (+)
	Respondent's highest level of education	Not supported
	Respondent's other qualification	Supported (+)
	Respondent's prior experience related to business	Not supported
	Respondent's past management experience	Supported (+)
	Unemployment status of respondent	Not supported
	The view of importance to respondent in:	
	Employment	Not supported
	Turnover	Supported (+)
	Profit	Supported (+)
	Asset growth	Not supported
	Entrepreneurial style of respondent	Not supported
	Respondent's aim to increase the size of business	Supported (+)
	Respondent's motivation to establish own business	Supported (+)
H2:	The nature of the firm significantly affects the growth performance in established small firms.	
	Age of firm	Not supported
	Size of firm	Not supported
	Methods of acquiring business	Not supported
	Legal status of the firm	Supported
H3:	The company strategies significantly affect the growth performance in established small firms.	
	Formal business plan for the company	Supported (+)
	Business objective achieved for the company	Supported (+)
	Marketing strategy to compete for the company	Supported (+)
	Information system improvement for the company	Supported (+)
	Operating technology improvement for the company	Supported (+)
	Training programs to employees	Supported (+)
	Market status to compete with competitor	Partial supported
H4:	The external factors significantly affect the growth performance in established small firms.	
	Economic difficulty in last six year	Not supported
	Other external factors	Not supported
	Government support	Not supported

(+) indicates positive correlated with firm growth

5.4 RESEARCH IMPLICATIONS

5.4.1 THEORETICAL IMPLICATION

Upon close inspection, most studies tend to be specific, with most focusing on very limited sets of determinant variables. Firms cannot succeed on the basis of a single or small set of combined variables, rather, firm growth is interlinked with a multitude or a complete combination of variables. According to Storey's (1994) small firm growth model, research that examines the combination of the three basic components (the owner-manager, the firm and the business strategies) is broad and generic. Thus, the first theoretical implication is that the study provides a robust measurement of the determinants of small firm growth in the context of a much broader and generalized base, rather than merely a specific single determinant study or an independent component alternative measure.

In terms of theoretical implications in testing the relationship between firm size and growth, Gibrat's (1931) Law of Proportionate Effects was used in this study. Based on this theory, firm size and age were considered to be determinants of growth (Evans, 1987; Audretsch, 1995; Dunne and Hughes, 1994; Das, 1995). The regression analysis found that there was no correlation between these two variables. In other words, growth was independent of firm size and firm growth. In addition, the presence of selection effects, the size definition, the estimation method and the model specification used were not well defined or applied. Other factors that are also important to the growth of firms were not included, such as capital investment, labour productivity and external support factors. That is, no insights into other firm-specific factors in single or multi-periods were tested in this study. This limits the results and caution should be applied by policy-makers. More comprehensive studies between firm size with other determinants and firm growth are required to be conducted in the future.

Finally, the findings of this present research offer some degree of confirmation of Storey's (1994) argument, as described in Chapter 2, and the coefficients of some

variables were found to have significant regressions. However, some correlations were low or very low. The findings must be treated with caution. When taken in the context of a firm's broad variables pool, some other variables that have not been studied - although not all - might be valuable, unique, or non-substitutable and thus might create barriers affecting the entire picture of firm growth performance. Therefore, this study can be considered as a general representation of firm-level factors rather than specific factors important to any given industry.

Although this study may offer guidance to other researchers, they may need to rethink their approaches in future research. Based on the findings of this study, when significant results were found, evidence for supporting the hypotheses has been highlighted. However, the results of such studies could potentially be misleading. Some variables may be significantly important to firm growth in this study, while they may not be significantly important in others. This means that single dimensional studies are likely to introduce bias associated with other variables because such studies do not account simultaneously for the effects of other variables.

As suggested by the results of the multivariate analyses described here, an appropriate perspective on the issue could stem from recognition that management is a complex activity affected by a myriad of interacting internal and external factors, and must inevitably be undertaken in a holistic manner in smaller concerns. This particularly applies to those factors that were found not to have contributed to firm growth. Further research is required to determine if the variables found to be important in this study apply to other contexts, and this study may offer guidance to other researchers in other theoretical contexts.

5.4.2 MANAGERIAL IMPLICATIONS

5.4.2.1 Owner-manager's Characteristics and Firm Growth

5.4.2.1.1 Gender of the Owner-manager

Insights obtained from the analysis of Sit's (1991) survey in Hong Kong small business enterprises might provide some useful guidance for future research. In spite of the obvious improvement in the status of females and their participation in the economy, they remain very much excluded from ownership in the logistics industry, probably because of the influence of traditional descent in Chinese culture. Furthermore, the logistics and transportation industries are particularly likely to be regarded as male industries; normally these industries require much physical and technical effort in operation, particularly in the past even though this has changed in recent years. This leads an explanation of why fewer females are engaged in the industry. For example, the percentage of females engaged in SME establishments in logistics and transportation was only 4.6% (HKIC, 2003) in 2003. Hence, the results of this study may represent the characteristics of the logistics industry, but may not represent small firm businesses in other industries. Another fact is that in some other industries the gender balance may be predominantly female. More studies should be conducted to confirm this observation.

The problem has been found that the participation rate among females in small business as owner-mangers is relatively low (Curran and Burrows, 1988), and the data collected in this study cannot represent other industries. Given that the issue of gender has been examined in previous research studies, it has only become a topic of strong interest in recent years. Much of the previous literature relating to small business issues has tended to ignore gender differences (Mazzarol et al., 1999; Allen and Truman, 1991; Storey, 1994). The gender of the owner-manager is not a key influence upon subsequent business success. In this study, there was no indication of any correlation between gender and small firm growth. That is, there was no difference found in the performances of firms run by males or females (Kangasharju, 2000; Cooper et al., 1989). With the change of attitude towards gender, the

difference of gender is no longer applicable to today's world. More research is required to identify how female owner-managers differ from male owner-managers and what specific, different factors they may face.

5.4.2.1.2 Age of the Owner-manager

In the earlier discussion in Chapter 2, it was argued that age could be associated positively or negatively with firm growth rate. However, it was also suggested that better performance could occur in the middle-aged owner-manager group (Storey, 1994). The result of this study is consistent with Storey's suggestion that the middle-aged owner-manager was most likely to own a rapidly growing business. The possible reason for this may be that the management style of older owner-managers in small firms is less risk-taking and they have higher levels of skills and experiences. Particularly, the middle-aged owner-manager has all the benefits of both younger and older counterparts, such as better experience, more credibility, and good levels of energetic, ability and resources. This finding is compatible with the results reported by Storey's (1994) study. Overall, there is some support for the view that the older age of the entrepreneur when the business is established is an influence on the growth rate of that business.

To examine further the reasons for entrepreneur's age affecting firm growth, owner-manager's age was cross-tabulated with other research variables to seek for some related findings (see Table 5.4). First, middle-aged owner-managers were found to be more likely to have more other qualifications providing better performance in firm growth. This suggests that the middle-aged group of owner-managers' other recognized qualification may have contributed to their better performance in firm growth. Second, none of the owner-managers was in the younger group, which suggests that younger owner-managers do not have management experience. The result is not surprising since younger owner-managers have had less time to gain experience and are more risk taking. For instance in this study, many younger owner-managers were engaged in the trucking industry, which normally requires less management experience to operate, particularly in very small-sized firms. Third, there was evidence of some link between age and motivation to grow. The middle-

aged group of owner-managers was better motivated to foster firm growth. This group of owner-managers was more likely to be ambitious in aiming to increase the size of business. Finally, middle-aged owner-managers were more likely to have formal business plans for achieving firm growth. Middle-aged owner-managers were also more likely to set up objectives for their businesses. The middle-aged group of owner-managers appeared to have better qualifications, experience, and planning, and to be more likely to seek improvements in the way their firms ran (Storey, 1994).

This result suggests that the middle-aged owner-manager should be in the best situation and is most likely to own a rapidly growing business. In turn, too young and too old owner-managers are not likely to be associated with firm growth and are less likely to succeed in relation to firm growth.

5.4.2.1.3 Qualification of the Owner-manager

Other central hypotheses related to entrepreneur background were that the education and past experiences of the owner-manager would affect the performance of the firm. Data were collected on level of education and other professional qualifications gained whilst at work. With regard to past experience, interest focused on the prior sector experience and past management experience.

However, entrepreneurs' education and prior sector experience were not found to be significant in the study. This is somewhat surprising, given the high expectation that these would be strong and independent variables. The exclusion of these variables is likely to be because the impact was indirect, the majority of owner-managers had completed formal education only to secondary school level, and direct management experience variables were dominant qualification variables, leading to their exclusion. This outcome led to rejection of the perceived hypothesis even though past research all found in their studies that the education level of owner-manager significantly influenced business growth (Kangasharju, 2000; Cooper and Gason, 1992; Casson, 1991; Basu and Goswami, 1999). However, the results of this study support the traditional pattern (Sit et al., 1991; Bolton, 1971; Watkins, 1983) that owner-managers tend to have less educational background. There was no relationship

found between education and firm growth. As Storey (1994) confirmed, well-educated persons are more likely to work in large organizations with better security of stable income while less educated persons are more likely to take risks to run their own businesses.

In spite of the study participants' relatively low level of education, there was a sign that their prior sector experience was not useful in securing better firm growth. As discussed previously for business success, the important thing is the provision of different products or services which have never being done before, rather than past experience. The outcome contradicts to Basu and Goswami's (1999), Duchesneau and Gartner's (1990) and Cuba's (1983) findings that successful owner-managers were more likely to have prior experience if they were to have success in business growth. So, it is the individual coming fresh to the market who is more likely to bring innovative business ideas, or to do things uniquely differently from before or from other firms who is likely to achieve business growth (Storey, 1994). More research should be done to find out how these two variables (age and prior sector experience) can affect firm growth.

One the other hand, the results suggest that membership of a professional organization is associated with a high degree of practical logistics and transportation competence. On this basis, it is possible to hypothesize that gaining professional status, say in logistics, gives an individual certified transferable skills which allows the individual to move easily between companies. Practical and professional competences give owner-managers the ability to respond to changes in the market by developing business capacity. Although the percentage rate of owner-manager with other qualification was relatively low in this study and not found to be the key entrepreneurial variable, it is an important finding that growth was likely to be higher if the owner-manager had membership of a professional organization, or some other related qualification.

As Keeble et al., (1992) found, individuals who had previous managerial experience within large organizations were significantly more likely to establish their own businesses. However, the opposite was found by earlier research undertaken within the manufacturing industries (Cross, 1981; Gudgin et al., 1979). Storey (1994)

concluded that the owner-managers of fast growing firms were more likely to have management experience immediately prior to business founding. Turning to the degree of managerial experience, the owner-managers of fast growing firms were much more likely to have been managers prior to business founding. This outcome contradicts Dunkelberg's (1987) suggestion that past managerial experience had negative impact on business growth. In this study, other qualifications gained whilst at work and prior management experience were found to have statistically significant direct impact on firm growth. This indicates that owner-managers with other qualifications and past management experience can take an important role in achieving better performance in firm growth. As two contrasting outcomes have been found in this study, further research is required to confirm this observation.

5.4.2.1.4 Unemployment Push & Entrepreneurial Style

There was no indication of any relationship between unemployment push and self-employment with firm growth. In such a situation as the context of this study, people tend to build up their businesses in accordance with their own interests. As stated, the reason is that unemployed founders are often forced to start up their own business without any intention, consideration, planning or even any new ideas, and with lower levels of skills. Eventually, unemployment push was not found to be a factor associated with firm growth. There was no evidence that owner-managers were forced to enter their business by the unemployment push.

Consistent with unemployment push results, there was also no indication of any relationship between entrepreneurial style and firm growth. The result was found that entrepreneurs were normally 'pulled' to build up their businesses by applying their experience or by pursuing their identified opportunities. Entrepreneurs were motivated by being in control of deciding the nature of the work they undertake, to which they can apply their specialist knowledge and develop their expertise. There was also no indication that entrepreneurs were 'pushed' into their own businesses through redundancy or unemployment push. Further study of entrepreneurial style should be conducted to understand how this factor interacts with firm growth performance.

5.4.2.1.5 Motivation

Gary (1990) suggested that, in relation to motivation, the distinction is drawn between negative motives (push factor) which force people to opt for self-employment, and positive motives (pull factor) which attract people into business. Storey (1994) synthesized some of the explanations which have been provided by researchers that motivation is related closely to business growth. At its most simplistic, a crude distinction was made between positive and negative motivations. The hypothesis was supported since those individuals beginning with positive motivations were found to be more likely to establish businesses which subsequently grow faster than those with negative motivations. The results suggest that a positive motivation is more likely than a negative motivation to lead to the establishment of a business which subsequently grows faster (Glancey et al., 1998).

From the respondents' own point of view, what were the major reasons for them to abandon salaried employment in order to become owners? Asking respondents if they aimed to achieve growth is a rather general question. More precise questions about whether their aims focused on profits, turnover, assets and employment proved to be more revealing. Respondents are asked to rank on a scale of one to five the importance of growth in turnover, assets, employment and profits. However, in this study the importance placed by the owner-manager's on firm growth, firm size was ranked as the least important. The achievement of financial betterment was found to be the first factor and this indicates that small enterprise is particularly rewarding in financial terms. Profit making emerged as the most important in comparison with the other three factors. This indicates that owner-managers rating growth in profits as highly important increased their growth rate. It has been suggested by Gibb and Dyson (1984) that owner-mangers simply do not have time to think about new ideas for the growth or survival of their business. It is only possible for them to focus on money generation for profit making. Expanding business by profit making does correspond with the common view of the majority of owner-managers, since profits benefit cash-flow, justify investment decision and, the most important can to be used

for further expansion. In the long term, the main purpose for doing business should be oriented towards profit generation.

Somewhat unexpectedly, the factor of niche market identification was nearly the lowest, just ranking before higher social status and high growth potential. Such a response may mean that innovation or new idea penetration are not common in the logistics industry. As expected, the factors of by chance, dissatisfaction with current employment and inability to find salaried employment were the three most common forms of negative motivation. Such a result is rather ambiguous and might mean that some entrepreneurs do not look upon themselves as important agents in economic affairs and mainly make adjustments to economic forces beyond their control. Those entrepreneurs mainly focus on the return of their own benefits. Confirming this outcome, underpaid salaried work, threat of actual unemployment and redundancy were the next most important factors. Quite a number of the respondents gave the reason that they were forced to survive economically. This portion of entrepreneurs looked on their shift into ownership as another way of making a living, and they were not necessarily expecting much higher financial returns. Such a response is consistent with the high failure rate reported in previous studies. Finally, there were also some respondents who mentioned factors of inheritance. It seems less likely that those respondents were persuaded to go into SMEs because of personal prospects and autonomy.

The result confirms Story's (1994) suggestion that the owner-managers of rapidly growing firms are highly motivated in terms of either positive or negative factors. Bygrave (1989) confirmed that the process of business growth was non-linear, discontinuous and individualistic. The impact of changing motivations on objective-setting does not examine the ways in which these changes are manifested in terms of strategic practices. An in-depth study of the entrepreneurship process should be conducted in terms of entrepreneurial development, along with motivations, expectations and goals.

5.4.2.1.6 Conclusion

Although eleven variables of the characteristics of owner-manager have been examined and tested, the impact which these characteristics have upon the subsequent growth performance of the firm was found to be relatively limited. However, if all of these variables were to be studied simultaneously within a single research investigation, a more accurate assessment could be made of their relative impact (Storey, 1994).

Of the eleven variables, the motivation of ownership was found to be of some importance, with respondents 'pulled' by their desire. Those individuals beginning with positive motivations were more likely than those with negative motivations to establish businesses which subsequently grew faster. The evidence also proved that respondents with management experience were more likely to have rapidly growing firms, as were those with other qualifications. Finally, middle-aged owner-managers were most likely to have rapidly growing firms.

5.4.2.2 The Firm's Characteristics and Firm Growth

5.4.2.2.1 Size of Firm

Firm size is a widely accepted factor in relation to firm growth. In previous studies, the size of firm has become an important factor for consideration (Storey and Johnson, 1987; Davidsson et al., 2002). Empirical findings (Jovanovic, 1982; Lucas, 1967; Simon and Bonini, 1958) proved that firm growth was independent of firm size, with Gibrat's Law taken as an implication. This law holds that firm growth is independent of firm size. Small and large firms will on average have the same rates of growth. No matter whether firms have different sizes, they have the same level of growth rate. A corollary to Gibrat's Law of Proportionate Effects, from this study, is the proposition that a firm's growth is independent of its size. Taking the employment size as the size factor in the study, we found no significant difference between the growth rates of small firms. Each firm had the same distribution of

growth possibilities, and each firm's actual growth was determined by random sampling from that distribution. However the result contradicts Wijewardena and Cooray's (1995) and Singh and Whittington's (1975) findings of a positive relationship between firm size and growth rate and Evan's (1987) and Storey et al.'s (1987) negative size and firm growth correlation.

A further consideration in this general discussion of firm size and growth, suggested by Barkham et al. (1996), was that firms cannot increase in size at the same rate forever. Compound growth is exponential and a firm which doubles in size annually will quickly grow beyond the organizational ability of even the most capable management team. The speed at which the growth rates decline with age and increasing size depends on the distribution of the size of the firm's population. Therefore, a specific study testing the relationship between firm size and firm growth by using Gilbrat's Law should be conducted in future research. It is also important to examine this factor in greater detail, particularly in the same industry in Hong Kong.

5.4.2.2 Age of Firm

Firm age is another widely used factor in previous research to test firm growth (Storey, 1994; Almus and Nerlinger, 1999; Tibbits, 1995; Wagner, 1995; Glancey, 1998). These studies have all found a general pattern of younger firms growing more rapidly than older firms. Particularly, Storey (1994) suggested that, due to the effect of minimum efficient scale (MES), a very young firm is more likely to achieve significant growth. The fact is that, once this is achieved, business will grow rapidly at the early stage and slowly afterwards. Subsequently, the growth rate will level off in later years as the firm matures. It is also possible that the generally observed faster growth of small firms is due to a form of survivor bias in the early stage.

In a cohort of firms, some will do well and achieve higher growth, while others may do badly and fail. Since failed firms disappear, they were not recorded in the data set and so mean growth rate was highly inflated. Moreover, firm growth is faster in early stages, and can lead to better performance. If firms keep on growing continuously, additional expenditure or investments will of necessity increase due to the effect of

economy of scale. The result of this study indicates that older firms, in general, have poor growth performance compared to younger ones (Almus and Nerlinger, 1999; Tibbits, 1999). In the study, it has been observed that there is no indication of any relationship between firm age and growth rate (Ahmet C, 1993). More research has to be done to confirm this observation.

5.4.2.2.3 *Legal Status of Firm*

As stated in Chapter 2, business can take on three different legal forms: sole proprietorship, partnership and limited company. When an independent owner enters into entrepreneurial venture, there are options available. A sole proprietorship enables the owner to open up the business according to personal resources. A partnership or limited company is set up by pooling resources with other partners. The legal status, in this study, had a positive correlation, meaning that the limited liability form encouraged the growth of firms. This confirms what other researchers have found in other areas.

Storey (1994) pointed out that limited companies were grown more rapidly than sole proprietorships or partnerships. Limited companies have the prime benefit of corporate status with limited liability and apparently increased credibility with both their customers and financial supporters. This also confirmed Almus and Nrlinger's (1999) result that the firms with limited liability form realized higher growth rates than firms where the owners' private capital investment was liable. Firms with limited liability are more likely to take risks as the owners' personal wealth is protected from excess loss of the firm. Limited legal form firms tend to encourage firm growth. Davidsson et al. (2002) found evidence of this in their empirical analysis of business growth in Sweden that legal form was positively associated encouraging the growth of firms. Limited companies have the prime benefit of limited liability and credibility in enhancing their business capability. Limited companies are more able to take risks as personal wealth is protected from excess loss (Almus and Nerlinger, 1999). Limited companies have the prime benefit of limited liability and credibility in enhancing their business capability. Limited

companies are in a better position to take risk as personal wealth is protected from excess loss (Almus and Nerlinger, 1999).

5.4.2.2.4 Conclusion

The results regarding firm characteristics were generally consistent with proposed hypothesis particularly regarding the size, type and legal status of the business. The evidence showed that the age of the firm had no relationship with firm growth, however, there was a general pattern of the younger firms growing rapidly and the older firms growing slowly. The size of firm also had no impact on firm growth. This evidence supports, as a corollary to Gibrat's Law of Proportionate Effects, the proposition, that firm growth is independent of firm size. Small and large firms would on average have the same rates of growth. Legal structure appeared to have an influence on growth, with limited firms having better performance in firm growth than either sole traders or partnerships.

5.4.2.3 Business Strategies and Firm Growth

5.4.2.3.1 Planning and Objective

Planning and objectives have been identified as crucial factors for business success (Bracker and Pearson, 1996; Huck and McEwen, 1991). Planning formulates the setting of goals and objectives for the firm to improve its performance (Rue and Ibrahim, 1998). If goals are unknown, it cannot be determined whenever sufficient information is available to measure achievement. However, an alternative argument implies that small firms focus mainly on service upgrading and profit maximization. Planning is neglected since they believe that the market is a free ride and their business strategies should be flexible. Long-term planning is not meaningful in developing their businesses (Dess et al., 1997; Knight, 2002).

Researchers have found that firms with planning had better performances than firms without planning (Bracker and Pearson, 1986; Rue and Ibrahim, 1998). This research

found that planning and objectives were important factors in contributing to firm growth. Although no firm can achieve the complete execution of planning and objectives, the information about these two factors can provide a measurement scale for achievement and references for future development. For today's management, planning and objective setting are the first step and the key issues in association with business success (Bracker and Pearson, 1986). The presence of a business plan can be used as a proxy for managerial ability. Planning and objectives should be proactive, regardless of whether long-term or short-term, and should be written down to be specific. The results of this study suggested planning and objectives to be the key determinants in affecting firm performance, even though there were no records in this study of 100% achievement.

5.4.2.3.2 Marketing Strategies

Porter (1980) defined three generic business strategies in terms of cost leadership, differentiation and focus. For the purposes of this study, these dimensions have been expanded. Whilst recognizing the importance of this conceptual framework, as discussed in Chapter 2, the marketing strategies were tested in this study. An effective marketing strategy is an important component of small business success yet there are many entrepreneurs who are excellent in operating but poor in marketing. It is therefore worth noting that a focus on marketing strategy leads to faster growth irrespective of whether any marketing strategies are undertaken.

Cost leadership has been found to be the fundamental marketing strategy in achieving firm growth, particularly in the logistics industry. Chandler and Hanks (1994) concluded that cost leadership was operated at all level of different industries, particularly in small enterprises. Niche marketing was the second important factor. Ghosh et al. (1993) reported in their study in Singapore that finding a market niche was the chief success factor. Although cost leadership and niche marketing are the fundamental market strategies in market competition, firms with innovation strategies had better firm growth. This confirms Phillips' (1993) study that innovation is also a key strategy associated with rapid growth in small business. The creativity and intuition can provide a high degree of independence and autonomy to

implement a new idea, product or service in improving their availability in the marketplace.

It was not surprising to find that cost leadership was the most important factor in achieving business success, particularly in the logistics industry. The effectiveness of the overall marketing strategies depends substantially on how well activities in the various functional areas are integrated to form a pattern. This pattern defines the firm's marketing strategy and therefore competitive position within the industry, eventually successful marketing strategies can be executed (Mintzberg and Quinn, 1991).

5.4.2.3.3 IT Capacity and Operation Technology Improvement

Technological sophistication in Storey's (1994) study is well researched. Peter and Waterman (1982) found that technology advancement was an indicator of business excellence, in the large firm context, as the key to business success. The measurement of technological sophistication in this study focused on information technology capacity and operation technology improvement. It is widely recognized that more technologically sophisticated businesses, even in conventional sectors, are likely to grow more rapidly than those with lower levels of technological sophistication (Chaganti et al, 2002; Phillips and Kirchhoff, 1989; Storey, 1994). Lin (1998) and Steiner and Solem (1988) also proved that the adoption of new technologies, the availability of resources to adopt new technology and the development of competitive advantage in advanced technology were related significantly to the success of small firm growth.

This result supports that SMEs are particularly fragile with regard to the effective use of technology, and investment in information technology is comparatively low. This is not surprising since information technology is not a key issue in the logistics industry. Conservative attitudes, particularly focusing on cost-saving, in a small firm may lead to neglect of the importance of information technology (Wijewardena and Tibbits, 1999). However, the analysis shows that these variables had a greater impact on success in small firm growth. Firms with information system and technology

support were likely to grow faster than those firms without information systems in our study. SME managers should seek for the assistance of advanced technology to increase the service quality in their firms' performance (Chaganti et al, 2002).

5.4.2.3.4 Training Program

Employee training is of crucial concern and can be developed most effectively in nurturing the capability of the working environment. Cosh et al. (1998) reported that small firms undertaking training programs were more likely to survive and enjoy growth in employment and sales turnover than their non-training counterparts. Feel (1999) confirmed that the linkage between training and performance improvement is equivocal. However, most small firms make poor use of formal training related to resource constraints such as time and money (Storey, 1995). Alternative studies (Cambridge Small Business Centre, 1992; Wynarczyk et al., 1993) have demonstrated that there was no linkage between training and firm growth. As Storey (1995) stated, many owner-managers were 'me too' businessmen without normal or academic education and training practice. Much of the poor use of formal training relates to resource constraints and an apprehension about training course inadequacy on the part of small firm owner-managers.

Although the percentage of firms providing training programs to employees is rather low, it demonstrates the likelihood of firms undertaking training programs for their employees having very good firm growth (Watson et al, 1998). Aware of the risk of failure, those firms with training programs understand the importance of making long-term investments in employee training. Half of the firms reported having systematic internal training and the other half did not provide any internal training to their employees. Funding for external training for employees was even less important to the small firms in this study. Although the rate was typically low, the results of growth rates for both internal and external training were rather high. This indicates that growing firms may be more likely to perceive the skill base of their enterprise to be a competitive advantage, with the expectation of encouraging employee training to a greater extent than slow-growth firms. Although not many firms invested in employee training in this study, it was found that the firms providing employee

training were likely to achieve significantly higher growth rate than those which did not. Supporting employees to obtain suitable qualifications and training may assist the development of their skills and competence, which creates a competitive advantage for the firm (Basu and Goswami, 1999). A very high correlation was found between employee training and firm growth. Given the high cost of training programs, employee training is mandatory to improve their skills and competence in contributing to their firm's performance.

5.4.2.3.5 Conclusion

The first consistent finding to the study was that faster growing firms usually had business planning and objectives. The second consistent finding was that marketing strategies were important and associated closely with firm growth. The third consistent finding was related to technological sophistication, indicating that there was a close relationship between technology and firm growth. Fourth, it was also found that successful firms normally had training programs, either internal or external, provided to their employees. Finally, an important result was the unveiling of marketing factors of SMEs which had thrived under keen competition in difficult economic environment. These results might provide helpful frames of reference by means of which small firms would be able to examine and strengthen their competitive positions as they enter into the hyper-competition of the future. Thus, from a managerial perspective in designing their business strategies, owner-managers can consider crafting, fostering and leveraging their businesses in a positive way by achieving such a benefit.

5.4.2.4 External Factors

The Asian economic crisis provided a strongly fluctuating downturn of the macroeconomic environment in the late 1990s. The economy of Hong Kong faced the economic recession and experienced low rates or even below-average rates of business growth. The general concept in small business still persists in Hong Kong that they do not receive any support from the government.

In general, the economic difficulty had no impact on firm growth. Consistently, most of the small firms had no intention of receiving government support. However, there were no relationships between these external variables and firm growth, suggesting that business growth rates were not affected significantly by external factors. This is contrary to all the views of economists, who prefer to believe that economic difficulty and government support are the key factors affecting firm growth (Covin and Slevin, 1989; Tan and Tay, 1994; Kangasharju, 2000). Therefore, the results indicate that there is a need for government authorities to consider providing more assistance or other relevant various supports or policies to assist practitioners in the industry (Yusuf, 1995). Particularly, there would also have more attention to staffing to ensure SMEs received high quality help (Curran and Blackburn, 2000). Further empirical studies, specifically of external factors, should be conducted to learn more about this observation.

5.4 CONCLUSION

The results of the study have been tabulated and discussed in this Chapter. The direct effects of the independent variables and the effects on the dependent variable have been summarized. The results of the testing of the 4 broad hypotheses – the characteristics of owner-manger, the nature of firm itself, the business strategies taken and the external factors - have been discussed. The implications in terms of the context of Hong Kong's logistics industry have been drawn up.

The analysis suggests that the reason why some entrepreneurs have succeeded in expanding their businesses can be traced to several factors, particularly the business strategies which can contribute to success. While theories of entrepreneurship contribute towards explaining growth, it is necessary to look beyond these to explore the critical factors, in order to provide a more complete explanation of the importance of the effects on businesses.

A further suggestion to owner-managers is to encourage indigenous entrepreneurs in the industry to acquire better management skills and qualifications to improve their managerial capability and experience. They also need to consider the possibility of subsidizing both employee education and training programs. Better knowledge and experience may lead to greater business success in small firms.

However, it must be acknowledged that these implications cannot be proved conclusively unless replicated in similar studies. On the other hand, it is possible that the antecedent variables affecting the logistics industry may be significant in other replicated studies. This lack of generalizability of the results of this study may be attributable to the current businesses surveyed and the selection of variables used in operationalizing the conceptual model constructs. Further research is required in order to extend and replicate these results.

The next Chapter will be the concluding chapter, focusing on the limitations of the study and future directions. The results will be summarised, future directions will be suggested, and recommendations for practitioners will be drawn up.

CHAPTER 6: CONCLUSION

6.1. INTRODUCTION

This is the concluding chapter which focuses on the important findings, the major limitations, the direction for future research and the final conclusions of this research. Particular reference will be made to the characteristics of SME growth in the logistics industry in the Hong Kong context.

6.2. MAJOR FINDINGS

The purpose of this research was to analyze the determinants of small firm growth in the logistics industry in Hong Kong. The results indicated that fast growing small firms were rare during the recession period. Based on the results in Chapter 5, the major findings are summarised below.

6.2.1. OWNER-MANAGER CHARACTERISTICS

1. Owner-manager's age was related positively to small firm growth, with the best performance in the middle-aged category.
2. Other qualifications whilst gained at work and prior management experience had statistically significant positive impact on firm growth.
3. Individuals beginning with positive motivations were more likely than those with negative motivations to establish businesses which subsequently grew faster.

6.2.2. FIRM CHARACTERISTICS

1. As a corollary to Gibrat's Law of Proportionate Effects the proposition was made that firm growth is independent to its size. Regardless of whether firms had different sizes, they had the same level of growth rate.
2. The age of the business was independent and had no significant correlation with firm growth
3. The legal status of the firm correlated with firm growth, meaning that the limited liability form was found to be the legal status most encouraging to the growth of firms.

6.2.3. BUSINESS STRATEGIES

1. Business planning and objectives were related positively to firm growth, indicating that faster growing firms often had business planning and objectives.
2. Marketing strategies were related positively to firm growth, with some factors being important and some not important in the study.
3. Technological sophistications, particularly in IT implementation and operating advancement, were found to be important in achieving firm growth.
4. Training programs for employees, both internal and external, were also found to be a feature of successful firms.

6.3. LIMITATIONS OF THE STUDY

All research studies have limitations and this one is no exception. It is important to point out these limitations before concluding the research. Measurement of firm

growth is a challenging issue, and contradictory or no correlation results have frequently been yielded in small business research. Growth measurement in small business performance has its additional problems, due to data availability and reliability problems. As experienced by many researchers, small firms are notorious for their inability and unwillingness to provide the desired information for research.

6.3.1. SMALL SAMPLE SIZE AND SIMPLE METHODOLOGY

First, the study had some methodological limitations, such as small sample size (Johansson & Yip, 1004), and simple methodology (Ganesh et al., 1996). The study results may be limited by its sample and operations. In particular, in the logistics industries, the sample may not be large enough to permit sophisticated statistical analysis. The small sample size was inevitable due to time constraints, but may not permit generalization of the findings to all firms in the small industry sector. The small sample may not represent the main stream. The sample may not be representative of all entrepreneurs in the study; studies may be needed with samples from other countries, varied lengths of entrepreneurial experience, and firm sizes. The data may be correlational but may not provide direct evidence of causal links. Despite the increasing importance of small firms contributing to the country's economy, research on small business growth in Hong Kong remains scarce, partly due to the 'difficulty of studying these complex organizations' (Nohria and Ghoshal, 1997). One of the common problems is the low response rate in the small businesses sector. The response rate of this study was so low, with more 90% of the sample not responding. It is possible that those who did respond were disproportionately inclined to the competencies embodied in the standard, thus creating a response bias. Similarly, the firms being studied may be represented in Hong Kong, but may not represent the same industry in other place.

6.3.2. SELF-REPORTED BIAS

Measures are self-reported by entrepreneurs and these may be biased. Respondents' reports were distorted and subjected to the problems of common method variance with questions that ask for generalizations (Lord, 1985; Podsakoff and Organ, 1986).

The measurement of the research constructs relied solely on the perceptual judgment of a single individual representing each firm. Thus, the measurements of the data were based on the responses of a single individual with no additional assessment taken from other individuals. Using such a measurement technique raises the issue of common method bias, which can be particularly dangerous when a single informant fills out items that tap into independent and dependent variables within the same survey instrument. However, the factor analyses that were reported in this thesis demonstrated that a single factor solution did not emerge, as evidenced by Harman's ex post one-factor test (Podsakoff and Organ, 1986). Hence, there is unlikely to have been any common method bias.

Another problem is that the study design made it difficult for respondents to recall answers to questions involving different time periods. This research was designed to be unobtrusive, casual and self-reported, and usually most SME owner-managers are so busy that this design may have encouraged them to give superficial replies to the questions, without in-depth attempts to understand the real meaning of the questions. Since the questionnaires were sent out by mail, suggested the response rate to the first mailing was insufficient for data analysis and a second round of data collection was necessary.

6.3.3. THE TENDENCY OF GENERALIZATION

The third limitation of the study was the limitations to generalizations that could be made from the findings. The small sample size did not permit generalization of the findings to all firms in the small industry sector of the small sample did not represent the main stream. The sample did not represent all entrepreneurs; studies are needed

with samples from other countries, different lengths of entrepreneurial experience, and firm sizes. The study results are limited by its sample and operations, specifically in the logistics industries. The sophistication of the statistical analyses was limited by the sample size. The data were correlated but did not necessarily provide direct evidence of causal links.

Similarly, the people under survey were local entrepreneurs working in the logistics industry in Hong Kong. Care should be taken in generalizing the results to other industrial areas. The firms being studied may be represented in Hong Kong, but may not represent the same industry in other place. Further studies in other locations, using larger samples and employing appropriate methods to alleviate the effects of response biases, may help to clarify further the nature of the characteristics of small firms that are associated with firm growth. In other words, more research is required to test the findings from this study on other populations. It can be argued that the generalization to some other industries such as manufacturing, commercial, and other services industry can be reported in different manners.

6.3.4. THE BIAS OF VARIABLES

A firm's size can also be measured according to its revenues or profits or by the amount of human and physical capital it employs. The measure of firm growth in the findings of this research was based on the employment turnover. This may not appear to be the most suitable variable to explain the firm performance. The increase in the number of employees may not represent the real growth of the company. Therefore, the measure of the firm's total assets, revenue and profit may also contribute to the validity of the research outcome.

Moreover, where available, use of objective financial data on small firms may even have misleading results (Cooper, 1979). A firm's size, measured according to its revenue or profits or by the amount of human and physical capital it employs, is difficult to obtain, as subjects are notorious for being unwilling or unable to provide the desired information. The measure of firm growth in this research was based on the employment turnover. This may not appear to be the most suitable variable to

describe firm performance. The increase of numbers of employees may not represent the real growth of the company. In this research we used two separate performance dimensions. The first and key dimension reflecting the firm growth was the size of firm, measured as the average number of employees. The second dimension for supplementation was the proportional sales revenue increase. The measurement of the firm's total assets, revenue and profit may also contribute to the validity of the research outcome.

No single measure of SME achievement can be viewed in isolation from others. Sales turnover, growth in sales, profitability and liquidity appear to be very much interdependent; and all seem to be related in a complex manner to enterprise size in employment terms. There are clear lessons for researchers and policy-makers, not to mention owner-managers and their internal and external advisers, in these findings. The employment growth rate variables eventually used in the analysis represent an abstracted yet narrow set of organizational measures. Certainly other types of variables could be included in future studies. For instance, more detailed measurement of the dependent variables pursued by small firms can be incorporated and developed further.

Furthermore, some other aspects of the variables can be demonstrated as bearing on the activities and policies with small firm growth. Future research in these areas should consider the measures of such aspects. Despite these limitations, the study provides some insight into some firm-specific factors affecting growth in small logistics firms in Hong Kong.

6.3.5. THE DEGREE OF USEFULNESS

The final concern is whether this research is useful to practitioners. Dynamic change in today's business world may add to the need for useful research. Since different communities originate from different backgrounds, values and beliefs from different communities can be varied. Practitioners may or may not find findings and recommendations useful unless such areas are relevant and acceptable to interested practitioners. Thus, there is a strong need to broaden the researchers' practical

paradigm so that they can interpret and communicate results effectively to the practitioners who should also expand their own thought-worlds to make practical interpretation out of the research.

To make sure that perspective taking will occur, researchers confirm that in action research, if the academics and practitioners work closely together on the planned changes, the results are far more productive than cases whereby researchers and practitioners go their own ways. That is, collaborating with each other is an appropriate approach that yields the deeper understanding of organizational phenomena.

6.3.6. USE OF QUANTITATIVE DATA ONLY

Given the number and diversity of participating organizations, and organizational preferences for illustrative data, a quantitative approach was preferred for this study. This does raise concerns that are inherent in quantitative methodologies. Such analysis of necessity takes a broad brush approach that limits the data's ability to give meaning and understanding to the information gained. The research intention was to gather broad information about participation in decision-making to identify patterns and trends to the enterprise bargaining context. The data obtained may be unable to explain reasons for response patterns beyond the variables perceived in the model. The researcher must interpret results and such interpretation may be open to the research's subjective or interpretive bias. To reduce the risk of subjective interpretation of the data, some limited qualitative data should be gathered when respondents are invited to add further comments.

6.3.7. FOCUS ON LOGISTICS INDUSTRY

A further limitation was that the research was limited to the study of the characteristics of SME in the logistics industry. Small firms in the logistics industry may not reflect the characteristics in other industries. Future endeavours should consider firms in various industries to test the generalizability of findings other than

in the context studied here. In the future, it may be useful to conduct longitudinal research at given points of time. Details of data are best collected through in-depth interviews as a means of building up comprehensive histories that can be traced.

6.4. SUGGESTIONS FOR FURTHER RESEARCH

After discussing the results and implications to practitioners, further studies in a number of areas will be highlighted in this section to ensure that limitations in this study will be addressed and a substantial contribution towards the study of small firm growth can be made. Although there are many possible future research directions, some discussions and suggestions are focused.

6.4.1. FUTURE RESEARCH DIRECTIONS

This research found that planning and objectives were important factors in contributing to firm growth. Although no firm can achieve the complete execution of planning and objectives, the results of this study suggested planning and objectives to be the important determinants in affecting firm performance. However, the research finding of planning is rather simplistic and descriptive in nature. In the present study, the planning variable is partial captured the outcome only, and the process of strategy in planning is not included. This existing study has not yet addressed sufficient and empirical evidences in reflecting the importance of this determinant on small firm growth. An in-depth and systematic investigation in the extension of strategic planning has not been explicitly unveiled.

Many small business owner-managers still refuse to embrace the importance of strategic planning and appear to be a lack of strategic management skills and abilities in articulating a well-structured strategic planning for beginning with their business. It ends up with a failure to develop an adequate system of performance measurement and control. In nearly all cases, in El-Namacki's (1990) study, the practice of strategic planning by small firm owners and managers was found to be scanty and

perfunctory. Strategic planning is commonly neglected by small firm owner-managers due to the excuse of their day-to-day operating issues and decisions absorbing the time necessary for long-term planning.

For today's management practice, strategic planning process should be proactive, regardless of whether long-term or short-term, and should be written down to be specific, particularly in strategic management and thinking. Contemporary research has shown repeatedly that strategic management and planning is strongly related to small business performance (Beaver, 2002). Strategic planning is an essential ingredient in enterprise survival, performance and growth (Storey, 1998). The value of a well-considered and well-defined strategy for small firm is advocated for superior business performance. The ways in which owner-manager can devise, control and communication, strategy is considered as a key factor in achieving rapidly firm growth. Strategic planning can give direction to a small enterprise as a large one by knowing where the business going, the opportunities and routes available to get it there and the guidance for stakeholders to achieve its objectives and goals. Therefore, strategy and planning should be combined to study as a well-defined and well-communicated strategic planning process can provide owner-manager to succeed whatever its principle goals and ambitions happen to be. Evaluation and control procedures can then be carried for ensuring the success of firm growth.

Despite the importance and growing recognition of small firms and their contribution to economic vitality, innovation, employment generation, and business venture, the value and importance of strategic planning to small firms has been recognized and acknowledged comparatively recently (Beaver, 2002). Market environment is dynamic and frequently changes from time to time, formal plan without well-structured strategies is no longer applicable for today's management practices. It is worth noted that similar research studies are much common in recent literatures (Beaver, 2002; Dollinger, 1992; Jennings and Beaver, 1997), particularly those with a focus in small enterprise and entrepreneurial venture. A systematic in-depth investigation of the extent of this specific factor should be carried out in future studies.

Some other strategic variables have been shown to be important in other studies and how these factors impact upon business growth. For example, links to interorganizational networks, social capital, and learning also appear interesting in studying firm growth. Does interorganization network for small firms increase firm performance? Does social capital assist the growth of small firm? Does learning enhance the chance of small firm's survival? These strategic variables were only partially captured or did not feature in the present study and it would be productive to study the interrelationship further, particularly how it can affect a firm's performance.

These three factors of social capital, learning and interorganization network for small firm growth appear interesting and deserve further attention in future studies. Dyer and Singh (1998), Lane and Lubatkin (1998) and Yli et al. (2001) suggested that as an extension of the resource-based view, the relational view of competitive advantage derived not solely from firm-level resources but also from difficult-to-imitate capabilities embedded in dyadic and network relationship. This study has not provided empirical investigation in the linking between social capital, knowledge exploitation and interorganizational network. This perspective is prevailing in recent studies and worth to study in helping to explain small business firms' ability in survival, thrive and growth despite the basic factors for Storey's model.

Another extension of the knowledge and technology particularly important for small firm, generating and exploiting knowledge and technology in logistics sector demands that new knowledge be continually replenished. Technology may not enable small firms to create value or appropriate wealth, but it can be imitated at lower cost than the initial innovation, and thus is a source of sustaining competitive advantage (Alvarez and Barney, 2001). Social capital may be critical for the long-term success of technological advanced firms because the acquisition and exploitation of knowledge are predominantly social processes (Yli et al., 2001). The learning process in interorganization relationships provides good information for the small firm practitioners. Therefore, it would be interesting to see whether these factors may be influenced to small firms by social capital, knowledge processes and interorganization network in their relationship. Further study of these variables and

their interrelationships are suggested to investigate in a deeper understanding of organizational phenomena.

6.4.2. SMALL SAMPLE SIZE & SELF-REPORT DATA

Small sample size and self-reported research discussed in the last section may have caused some bias to the estimates obtained. The extent of small sample size and the self-selection bias need to be estimated by using a larger random sample of the population. Previous literature dealing with the achievement of excellence by SMEs is mainly descriptive in nature. The systemic investigation of a larger pool of in-depth studies such as case studies and longitudinal interview studies may help reap the benefits of combining quantitative and qualitative studies. More empirical studies are undoubtedly needed to refine the research model and related measurements. Future research may utilize an elaborated model of different factors which need to be distinguished clearly. Following the recommendation of McDougall and Oviatt (1999), a second study should look comparatively at two or more different contexts to determine the effects of the determinants on small firm growth.

6.4.3. RELIABILITY & VALIDITY

The first area of suggested future research simply focuses on refining the constructs used in the study while replicating the research effort across additional countries. As pointed out, more than half of the constructs in this study were below the normally prescribed reliability threshold. Thus, future researchers should attempt to improve the reliability of the constructs through further testing and refinement of the scales to use various resources constructs.

The most significant area for future research lies in testing the relationship between resources. The study examined individual resources as the unit of analysis and assumed a direct linear relationship between the constructs and firm growth. There may have been dangers in taking individual resources as the unit of analysis when

combinations of resources are most important to firm growth. Thus, future empirical research should pay attention to combinations and interactions of various resources.

6.4.4. COMPARISON WITH OTHERS STUDIES

For future research, it may prove worthwhile to compare determinants of SMEs in Hong Kong and in other Asian countries. It should also be of great value to conduct a comparative study between SMEs in the East and the West. Furthermore, a study tracing the progress of the companies examined herein in six-year intervals could also be conducted. As company growth that previously served to bind employees together is likely to erode, future follow-up studies are suggested to compare the past and the future. Finally, the study could also be replicated in other industries such as manufacturing, construction, wholesale and retail, and other services industries.

Furthermore, the importance of this guidance cannot be over-emphasized for the small firm during the recession period and onward studies should be made. Since this guidance is a function of the findings, future investigations must necessarily continue to search for new longitudinal research and to fine-tune the existing study across different sectors. The findings also provide direction for further research. More evidence from representative samples is needed and studies are needed of possible interrelationships among individual factors thought to influence small firm growth. Additional research on various aspects is recommended, concerning different samples and measures to examine.

6.4.5. ISSUES OF CONCERN IN LOGISTICS INDUSTRY

Differences in responses between different sectors in the logistics industry may be attributed to the positions of the individual respondents; some firms show a relative large proportion of responding, while some show different logistics type respondents. Obviously, respondents facing day-to-day shipping problems may have different priorities than respondents involved with other services. The different mix of exported and imported commodities between different types of logistics firms can

also affect priorities. The commodities shipped influence practitioners' perceptions of logistics services. Further research is suggested to test these possibilities specifically in the logistics industry with respect to logistical service attributes. Small firms in the logistics industry may have special needs that can be identified and serviced by small firms that desire to improve their ability to provide better firm growth. Parts of results were not focused, such as the emphasizing of forwarding capabilities, logistics globalization, strategic partnership, insurance coverage. Eventually, the basic services variables when emphasizing value-added and collaborating partnership capabilities were neglected.

A number of opportunities exist for future research in logistics with respect to small firms. These opportunities are due to the relative scarcity of this type of research and the importance contribution that the Hong Kong small firms can play in a global economy. Although logistics today can play a larger role in the development of Hong Kong's economy, further studies are suggested to investigate all aspects of logistical activities from the customer order cycle to warehousing and distribution. Many of these activities, including the customer order cycle, packaging, distribution, and transportation are important strategic factors that small business firm will need to become proficient in, if they are to succeed in an increasingly competitive and global economy.

6.4.6. ISSUES OF CONCERN IN HONG KONG

In Hong Kong, small firms replace large firms not just in terms of generating almost all of the new jobs creation, but also in terms of much of the innovative activities that have driven the growth of new industries and renew global competitive advantages. Job layoffs and downsizing of large firms, particularly in those traditional moderate-technological advanced industries, have to date been common phenomena in recent years. This empirical study aimed to suggest that a policy of stimulating small firms, or more generally entrepreneurship, may be one of the most effective ways to combat the current decrease in competitiveness in the industry and to seek for successful contribution to sustain their firm growth.

There are, however, significant problems that make the research results volatile and fragile and which may mean that the research system that has emerged and is effective in the short-term will prove to be inappropriate and dysfunctional in future. The dependencies and uncertainties that pervade Hong Kong's small firm sector are multiple and interconnected. They are almost fractal-like, a general dependence on foreign large corporations, particularly in the global logistics industry. Simultaneously, smaller firms are dependent upon the larger firms; entrepreneurs are dependent upon personal business relationships, goodwill, and perceived mutual benefit, which we did not test in the study. Moreover, most of the Hong Kong logistics firms have branches or offices in Mainland China, and the collection of such data was not included in this study. This provides an unreal figure in the findings, and the real employment rate may be biased. Therefore, the results may be representative of the characteristics of small firm practice in part of the logistics industry, but may not be representative of the characteristics of the whole logistics industry in Hong Kong.

Within the limitations of the choice of characteristics of small firms, industry, and instruments, this research suggests the relationships between the growth of small firms and the characteristics of the three main broad factors: entrepreneurial style, nature of firm and the business strategies. The results suggest that we have a long way to go toward refining methods of identifying characteristics of successful business. Small business policy-makers and researchers alike must recognize that no one approach is likely to be suited for all industries or different stages of firm growth. Despite these limitations, the study provides some insight into factors contributing to growth in small logistics firms in Hong Kong.

6.4.7. SUGGESTIONS FOR POLICY-MAKERS

From the policy perspective, it goes beyond the scope and, more importantly, the intention of this study, to suggest details of information for policy making and guidelines for industrial policy. Appropriate policies and implementations can be adopted to enhance the capability of survival or growth in the industry, appearing to be conducive to further development at institutional and investment policy levels.

For example, infrastructural development in the logistics industry is needed to weigh down the costs and to enable small firms to create environments that can compete with other industries.

Education and training require significant attention in Hong Kong, although much has been achieved already. Existing programs frequently focus more on perceived need than on expectations of successful firm growth. Government, institutions and training establishments should create appropriate education and training programs for prospective small business practitioners. The requirement for feasibility studies and attractive business plans in loan applications as a standard practice should be encouraged and even enforced. In addition to organizing seminars, conferences and trade fairs can also help to relay helpful information for the small firm practitioners.

6.5. CONCLUSION

Overall, this research has provided substantial information and can expand the horizons of the researcher's thinking to consider what to do with the knowledge of business practice since there are has clearly been some evidence discovered. Most categories of variables used in previous research were identified in this study, and knowledge of business activity was used, along with a wide assortment of available measures, to create a model of the determinants that might affect business growth rates. In general, the results of the regression analysis show us no tremendous incongruity compared to research by previous researchers, although there are some factors significantly and some factors non-significantly associated with firm growth. Even though some findings appear to be inconsistent with those of previous studies, the preoccupation of researchers and policy-makers worldwide with matters bearing on the access of SME growth seems to be recognized.

The theoretical elaboration and practical application of the findings may be of benefit to researchers who wish to describe and to explain the observed variations in behaviour and management in small firms and to policymakers and management

educators in identifying the skills and knowledge that an aspiring entrepreneur may need to have at his or her disposal.

The empirical findings provide evidence that owner-managers may adopt different managerial styles and strategies as a consequence of the amount of growth desired, and the amount of risk they are willing to assume. However, the four main factors which influence the growth of small firms – the characteristics of the owner-manager, the nature of the firm itself, the business strategies adopted, and the external factors concerned - need to be combined appropriately for growth to be achieved. This means it is very difficult to identify whether or not a firm will be a success or a failure. The results of this discriminant analysis appear to add contributions to the existing firms of knowledge which can be offered to owner-managers seeking guidance on the effective management of growth.

It is worth noting that this study aimed to assess the importance of factors within small firms significantly affecting the growth process – namely the characteristics of the owner-manager, the nature of the firm and the business strategies. The significance of these factors and their impacts has been addressed in the study. The results of this study should assist practitioners in the logistics industry or others to identify the firms most likely to grow. If the recommendations mentioned in the previous section are applied appropriately, there should be some positive results for the development of SME growth in Hong Kong. However, many further studies are needed to test the results in different circumstances in future.

This research did not find evidence to support concerns about declining satisfaction and commitment. Rewards not being commensurate with effort and respondent perceptions of negative trends in performance effectiveness can undermine growth performance in the long run. Further research can test and extend the results of this study with a larger sample size, and the findings of the study should be explored further with more targeted measures.

In conclusion, small businesses have played a prominent role in Hong Kong's economy. Over ninety percent of Hong Kong's companies are small businesses. In recognition of the need to improve small business growth, the research findings have

revealed that some of the factors considered important to success in Hong Kong small business are unique to the Hong Kong business environment. In this sense, the findings provide a good reference for scholars and policy-makers in designing policies and assistance appropriate for use, particularly in Hong Kong.

In particular, the level of government subsidy or assistance essential to development in the logistics industry is important. The government support should be sufficient to tap the enormous social benefits arising from investment in the industry. A large initial subsidy from the government is recommended if Hong Kong aspires to espouse the latest technology, education and training programs and to come to an early realization of the social spill-over benefits to the practitioners in logistics industry. It is worth recognized that developing Hong Kong into a logistics expeditor, with a strong logistics status, should be enhanced to, in turn, boost its efficiency and competitiveness status in the globalization of the world economy.

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APPENDICES

APPENDIX I: COVERING LETTER OF THE QUESTIONNAIRE

THE STUDY OF SME GROWTH QUESTIONNAIRE

Dear Participants:

SMALL AND MEDIUM ENTERPRISES (SMEs) have significantly contributed to the economic growth in Hong Kong, and insight into how they prosper is worthy of investigation. The research aims to examine empirically the determinants of growth in established SMEs and the extent to which the characteristics of the owner-manager or the main decision-maker may influence their business growth. The survey attempts to seek for the findings that reflect characteristics of small firm growth in which to provide a wealth of information for the 'best practice' in small businesses.

Your participation in this research study is very much appreciated. The completion of this questionnaire is very important and should take you approximately 15 minutes to complete. It is my hope that the timely completion and return of this questionnaire is representative of your interest in understanding how critical determinants may affect SME growth.

Please be open and candid with your responses. All information you provide will be strictly confidential. Furthermore, your responses will only be presented in aggregate and no single firm's results will be highlighted. Firm demographics will be used for comparative purposes only. Please make sure to complete ALL items in the questionnaire. You may withdraw from participation at any time if you wish.

The questionnaire contains 38 questions that have been designed for your convenience. If exact figures are not available, please give your best possible estimates. There is minimal writing required for the survey; however, if you wish, you may record any comments regarding the study in the space provided at the end of the questionnaire.

A summary of our findings will also be available to you, should you wish to follow up on this research. Again, thank you for your participation and if you have any questions or concerns please do not hesitate to contact me directly at.

Sincerely yours,

Raymond W.M. Cheng
Curtin University of Technology/Lingnan University
DBA Program

中小型企業成長問卷調查

敬啟者：

中小型企業(中小企)對香港經濟有著顯著貢獻，對其成長之研究是值得深入探討的。此項研究之目的是詳盡了解中小企成長的主要因素、及有關業界經營者或決策者在業務成長之特色，從而尋找一些結論，反映中小企成長之特色。所以你的參與肯定提供一些有價值和最佳經營狀況的資訊，給予業界經營者。

首先感謝您參與此項研究。此問卷約需十五分鐘完成，而完成整份問卷是很重要的。我們祈望你的完成，而此問卷之寄回正代表你對中小企成長調查之興趣，懇請您以開放及坦誠的態度回應。所有數據均為機密，亦只供此項學術研究之用。請確保完成所有問題。如閣下不欲參與此研究，可以隨時退出參與。

此問卷共有三十八題，並盡量以最簡化答題形式，方便參與者作答。如得不到準確數值，請提供最接近的估計數值。閣下如有任何與這問卷有關之意見，可在此問卷最後部份提供。

此調查結果將於結果公佈後提供予有意索取結果的參與人仕。再次感謝您的參與，如閣下有任何疑問，請致電查詢。 此致 謹祝

業務蒸蒸日上

澳洲科庭科技大學/嶺南大學
工商管理研究院

APPENDIX 2: THE QUESTIONNAIRE

THE STUDY OF SME GROWTH QUESTIONNAIRE
中小型企業成長問卷調查

Notes for Answering Questionnaire: 問卷簡介

1. The questionnaire contains seven (7) sections. It will take you approximately 15 minutes to complete the questionnaire. 此問卷共分七個部份，約需十五分鐘完成。
2. Some of the questions ask about your own personal networks and others about firm level activities. This is necessary due to the nature of the research. This means that often there will be more than one person from different organisations completing the survey, but it is important that you complete all questions listed. 此問卷包括一些個人或與公司有關活動的問題，並通常由多過一個人完成的調查，請盡量回答所有問題。
3. If exact figures are not available, please give your best possible estimates. 如不能提供準確的數值，請估計最近似值。
4. Your personal information will be kept strictly confidential and used for academic purposes only. All information will be disposed of immediately after the study. 所有在本問卷提供的資料，只供作學術研究之用，均絕對保密。
5. If you have any questions about the survey, please contact Mr. Raymond Cheng 如對此調查有任何疑問，請聯絡：鄭偉民先生

Section A: Characteristics of Personal Details 個人資料

(Please tick the box that corresponds to your answer to each question. 請在空格內填上✓)

1. What is your gender? 你的性別

<input type="checkbox"/> Male 男	<input type="checkbox"/> Female 女
---------------------------------	-----------------------------------

2. In which of the following age groups are you? 你的年齡是屬於

<input type="checkbox"/> Up to 20 years 20 歲或以下	<input type="checkbox"/> 21-30 years 21-30 歲	<input type="checkbox"/> 31-40 years 31-40 歲	<input type="checkbox"/> 41-50 years 41-50 歲
<input type="checkbox"/> 51-60 years 51-60 歲	<input type="checkbox"/> 61 years and over 61 歲或以上		

3. What is your HIGHEST educational qualification or nearest equivalent? 你的最高或同等學歷是

<input type="checkbox"/> Primary school 小學	<input type="checkbox"/> Secondary school 中學
<input type="checkbox"/> Diploma 文憑	<input type="checkbox"/> Degree (University) 大學
<input type="checkbox"/> Postgraduate Qualification (Please specify level) 大學以上程度 (請說明某程度) _____	

4. What other qualification have you obtained while in work? (These need not be work-related but might include technical or professional qualification) 在工作期間，你曾獲得的其他專業資格 (此資格不一定與工作有關)

	Qualification 資格	Date achieved 獲取日期
a)		
b)		
c)		

5. Did you have any prior experience related to your business in the same industry?

你會否有與此行業相關的經驗

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
If yes, please state the no. of years. 如有，請說明共多少年	

6. Did you have any management experience in your past jobs?

你會否有任何管理經驗

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
If yes, please state the no. of years. 如有，請說明共多少年	

7. Working backwards from the present, give details of your management experience progression (including your present post):

請詳細列明以前有關管理經驗 (包括現時工作職位)

	Position 職位	No of people managed 管理人數	Activity of firm 公司業務	Size of firm 公 司規模	Duration of job 工作年期
a)					
b)					
c)					
d)					
e)					

8. Were you an unemployed person when the time you started your own business?

當你開始你的個人事業時，你是否為失業人仕

<input type="checkbox"/> Yes 是	<input type="checkbox"/> No 否
--------------------------------	-------------------------------

Section B: Nature of the Firm 公司概況

This section may include details of the individual or each member of the group running the firm (Include 'active' owners and senior management).

此部份包括有關個人或公司其他成員資料 (並包括公司持有人及管理層)

9. What best describes your type of business? 貴公司主要業務性質為

<input type="checkbox"/> Shipping/Container Agency 船務代理	<input type="checkbox"/> Distribution/Channel Selection 配送
<input type="checkbox"/> Air Freight Forwarding 空運	<input type="checkbox"/> Ocean Freight Forwarding 海運
<input type="checkbox"/> Trucking Transport 陸運	<input type="checkbox"/> Parcel Delivery/Courier 速遞
<input type="checkbox"/> 3 rd Party Logistics Service Provider 第三方物流	<input type="checkbox"/> Logistics Consultancy/I.T. Services 物流顧問及資訊科技
<input type="checkbox"/> Procurement/Material Management 採購及物料管理	<input type="checkbox"/> Warehousing/Storage/Packaging 倉庫管理
<input type="checkbox"/> Other (Please specify) 其他 (請說明) _____	

10. Using revenue generation as the measure, list your key products/services in accordance to their importance.

以公司收入計算，並跟据其重要性，順序列出貴公司的主要產品/服務

	Product/Service 產品/服務	% 百分比
a)		
b)		
c)		
d)		
e)		

11. How long have you owned or operated this business? 你擁有或操作了這公司多久
(Please state the no. of years 請說明年份)

--	--

12. How did you acquire your business? 你如何獲得貴公司之擁有權

<input type="checkbox"/> I purchased it 購買	<input type="checkbox"/> I inherited it 繼承	<input type="checkbox"/> I founded it 創辦
Other (Please specify) 其他 (請說明) _____		

13. What is the legal status now? 貴公司的法定地位

<input type="checkbox"/> Sole Proprietorship 獨資	<input type="checkbox"/> Partnership 合伙人
<input type="checkbox"/> Limited 有限公司	<input type="checkbox"/> Other(Please specify) 其他(請說明) _____

(If your answer is Sole Proprietorship, please direct go to Question 15.)
如答案是獨資，請轉往第 15 題

14. a) If the firm is a Limited: 如貴公司是有限公司

What percentage of the firm's shares do you own? 你擁有的股權百分比為	%
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Are there any other major stockholders? 有否其他主要股東

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
If yes, please state the no. of other stockholders 如有，請列出其他股東人數	

Do they exert any influence on the running of the firm? 他們對公司的運作有否影響力

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
If yes, please state the no. of other stockholders 如有，請列出其他股東人數	

b) If the firm is a Partnership: 如貴公司是合伙人

How many partners are there (including you)? 共有多少合伙人 (包括你在內)	
--	--

Are you a dominant partner? 你是否最重要的合伙人

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
--------------------------------	-------------------------------

Are there any other dominant partner? 有否其他重要合伙人

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
If yes, please state the no. of other dominant partner 如有，請列出其他合伙人人數	

Sector C: Measures of Growth 增長核算

15. How many people did your firm employ in the following years? (include management and directors) 貴公司所僱用之員工人數為 (包括管理層)

	When the time business started 開業時	End of 1998 年底	End of 2003 年底
Full-time: 全職			
Part-time: 兼職			

16. What was the turnover achieved by the business in the following financial years? 貴公司之營運額為

When the time business started 開業時(HK\$)	End of 1998 年低 (HK\$)	End of 2003 年低 (HK\$)
<input type="checkbox"/> \$500,000 or less 或以下	<input type="checkbox"/> \$500,000 or less 或以下	<input type="checkbox"/> \$500,000 or less 或以下
<input type="checkbox"/> \$500,001 - \$1,000,000	<input type="checkbox"/> \$500,001 - \$1,000,000	<input type="checkbox"/> \$500,001 - \$1,000,000
<input type="checkbox"/> \$1,000,001 - \$2,000,000	<input type="checkbox"/> \$1,000,001 - \$2,000,000	<input type="checkbox"/> \$1,000,001 - \$2,000,000
<input type="checkbox"/> \$2,000,001 - \$5,000,000	<input type="checkbox"/> \$2,000,001 - \$5,000,000	<input type="checkbox"/> \$2,000,001 - \$5,000,000
<input type="checkbox"/> \$5,000,001- \$10,000,000	<input type="checkbox"/> \$5,000,001- \$10,000,000	<input type="checkbox"/> \$5,000,001- \$10,000,000
<input type="checkbox"/> \$10,000,001 - \$50,000,000	<input type="checkbox"/> \$10,000,001 - \$50,000,000	<input type="checkbox"/> \$10,000,001 - \$50,000,000
<input type="checkbox"/> More than 多於 \$50,000,000	<input type="checkbox"/> More than 多於 \$50,000,000	<input type="checkbox"/> More than 多於 \$50,000,000

17. What were the total assets of the business in the following years? 貴公司之資產總值為

When the time business started 開業時 (HK\$)	End of 1998 年低 (HK\$)	End of 2003 年低 (HK\$)
<input type="checkbox"/> \$100,000 or less 或以下	<input type="checkbox"/> \$100,000 or less 或以下	<input type="checkbox"/> \$100,000 or less 或以下
<input type="checkbox"/> \$100,001 - \$500,000	<input type="checkbox"/> \$100,001 - \$500,000	<input type="checkbox"/> \$100,001 - \$500,000
<input type="checkbox"/> \$500,001 - \$1,000,000	<input type="checkbox"/> \$500,001 - \$1,000,000	<input type="checkbox"/> \$500,001 - \$1,000,000
<input type="checkbox"/> \$1,000,001 - \$2,000,000	<input type="checkbox"/> \$1,000,001 - \$2,000,000	<input type="checkbox"/> \$1,000,001 - \$2,000,000
<input type="checkbox"/> \$2,000,001 - \$5,000,000	<input type="checkbox"/> \$2,000,001 - \$5,000,000	<input type="checkbox"/> \$2,000,001 - \$5,000,000
<input type="checkbox"/> \$5,000,001- \$10,000,000	<input type="checkbox"/> \$5,000,001- \$10,000,000	<input type="checkbox"/> \$5,000,001- \$10,000,000
<input type="checkbox"/> More than 多於 \$10,000,000	<input type="checkbox"/> More than 多於 \$10,000,000	<input type="checkbox"/> More than 多於 \$10,000,000

18. What net profit (before tax) did the business achieve in the following years? 貴公司之盈利額(除稅前)為

When the time business started 開業時 (HK\$)	End of 1998 年低 (HK\$)	End of 2003 年低 (HK\$)
<input type="checkbox"/> \$100,000 or less 或以下	<input type="checkbox"/> \$100,000 or less 或以下	<input type="checkbox"/> \$100,000 or less 或以下
<input type="checkbox"/> \$100,001 - \$500,000	<input type="checkbox"/> \$100,001 - \$500,000	<input type="checkbox"/> \$100,001 - \$500,000
<input type="checkbox"/> \$500,001 - \$1,000,000	<input type="checkbox"/> \$500,001 - \$1,000,000	<input type="checkbox"/> \$500,001 - \$1,000,000
<input type="checkbox"/> \$1,000,001 - \$2,000,000	<input type="checkbox"/> \$1,000,001 - \$2,000,000	<input type="checkbox"/> \$1,000,001 - \$2,000,000
<input type="checkbox"/> \$2,000,001 - \$5,000,000	<input type="checkbox"/> \$2,000,001 - \$5,000,000	<input type="checkbox"/> \$2,000,001 - \$5,000,000
<input type="checkbox"/> \$5,000,001- \$10,000,000	<input type="checkbox"/> \$5,000,001- \$10,000,000	<input type="checkbox"/> \$5,000,001- \$10,000,000
<input type="checkbox"/> More than 多於 \$10,000,000	<input type="checkbox"/> More than 多於 \$10,000,000	<input type="checkbox"/> More than 多於 \$10,000,000

19. Over the period of 1998-2003, how important to you were growths in the following? 於 1998 至 2003 年期間，貴公司以下各方面增長之重視程度為 (Please indicate the level of importance on a scale of 1-5)

	Less importance 不重視 ←————→ More importance 較重視				
Employment 顧用率	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Turnover 營運額	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Profits 盈利額	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Total Assets 總資產	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

20. Did you aim to increase the size of your business over this period (1998 - 2003)?

於 1998 至 2003 年期間，貴公司有否以增加公司規模為目的

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
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Section D: Motivation & planning of the Decision-maker 動機及計劃決策

21. Which of the following motive do you intend to establish your own business?
以下那種動機驅使你建立自己的公司

<input type="checkbox"/> Positive Motivation – people are attracted to enter their own business 正面動機 - 即是被吸引而建立自己的事業
<input type="checkbox"/> Negative Motivation – people are forced to enter their own business 反面動機 - 即是被迫使而建立自己的事業

22. If you choose positive motivation, what factor(s) attract you to enter your own business? 如你選擇正面動機，以下那個因素吸引你建立自己的公司

<input type="checkbox"/> For financial betterment 增加收入	<input type="checkbox"/> Previous business experience 有過往經驗
<input type="checkbox"/> Higher social status 增加社會地位	<input type="checkbox"/> Best use of expertise 發揮專長
<input type="checkbox"/> Greater personal freedom and control 較大個人自由及控制度	<input type="checkbox"/> Niche market identification (new idea) 獨特市場確認 (新創意)
<input type="checkbox"/> Self actualization (the desire for independence and success) 自我滿足	<input type="checkbox"/> Market research showing high growth potential 市場俱備發展潛能
<input type="checkbox"/> Other (Please specify) 其他 (請說明) _____	

23. If you choose negative motivation, what factors(s) force you to enter your own business? 如你選擇反面動機，以下那個因素迫使你建立自己的公司

<input type="checkbox"/> Threat or actual unemployment 對失業恐懼或已失業	<input type="checkbox"/> Dissatisfaction of current employment 對現時工作不滿
<input type="checkbox"/> Inability to find salaried employment 未能找到有薪工作	<input type="checkbox"/> Underpaid salaried work 低於一般薪金工作
<input type="checkbox"/> Discrimination in labour market 受勞工市場歧視	<input type="checkbox"/> Redundancy 裁員
<input type="checkbox"/> By chance 靠機會	<input type="checkbox"/> Inherited 繼承
<input type="checkbox"/> Other (Please specify) 其他 (請說明) _____	

24. What kind of entrepreneurial style do you belong to? 你屬於那種企業家風格

<input type="checkbox"/> Opportunist – pursue market opportunity 機會主義 - 追求市場機會	<input type="checkbox"/> Lifestyle – best use of expertise 生活化 - 善用專長
<input type="checkbox"/> Accidental – unemployment 偶然 - 失業	<input type="checkbox"/> Other (Please specify) 其他(請說明) _____

25. Did you have any formal plan for your business in the period from 1998 to 2003? 於1998至2003年期間，貴公司有否具體業務發展計劃

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否			
If yes, how much percentage was achieved? 如有，這些計劃達成了多少				
<input type="checkbox"/> 1-20%	<input type="checkbox"/> 21-40%	<input type="checkbox"/> 41-60%	<input type="checkbox"/> 61-80%	<input type="checkbox"/> 81-100%

26. Did you have any objectives for the business during this period?

貴公司有否任何目標去發展業務

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
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If yes, how much percentage was met? 如有，這些目標達成了多少

<input type="checkbox"/> 1-20%	<input type="checkbox"/> 21-40%	<input type="checkbox"/> 41-60%	<input type="checkbox"/> 61-80%	<input type="checkbox"/> 81-100%
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Section E: Business Development Activities 營運發展

27. Please tick ONE marketing strategy that best describes your company's business strategy for your primary service(s):

請選擇以下其中一項營運策略最能反映貴公司之營運情況

<input type="checkbox"/> Cost Leadership: The lowest cost service provider 成本領先：低成本服務
<input type="checkbox"/> Niche marketing: unique product/service, product/service differentiation 獨特市場策略：獨特產品/服務
<input type="checkbox"/> Innovation: New product/service/process/strategy 創新：新產品/服務/流程/策略
<input type="checkbox"/> Other factors (please specify) 其他(請說明) _____

28. In the past six years, did you have any information system to support your product/ service? 在過往六年間，你有否使用任何資訊科技協助你的產品/服務

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
If yes, please specify: 如有，請說明 _____	

29. In the past six years, have you significantly improved your operating technology? 在過往六年間，你有否明顯地改善你的運作科技

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
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If yes, in what way (choose NOT more than two): 如有，在那方面 (不得多於兩個選擇)

<input type="checkbox"/> Equipment 工具	<input type="checkbox"/> Facilities 設施
<input type="checkbox"/> Technical know-how 專業知識應用	<input type="checkbox"/> Operating process 運作流程
<input type="checkbox"/> Other (please specify): 其他(請說明) _____	

30. Do your company provide any training programs to your employees?

貴公司有否提供任何培訓計劃給予員工

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
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(If no, please direct go to question 33. 如答案是否，請轉往第 33 題)

31. Do your company provide any systematic internal training programs to your employees? 貴公司有否提供任何有系統的在職訓練給予員工

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
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32. Do your company provide any funding or program for encouraging external training to your employees? 貴公司有否提供任何資助或計劃去鼓勵員工修讀外間訓練課程

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
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33. Over the period of 1998/2003, what was your company's position as compared to the major competitors in the industry for your primary service(s)?

於 1998/2003 期間，貴公司在以下領域內與主要競爭對手在基本服務上比較所作出的評估為

(Please indicate the level of importance on a scale of 1-5)

Area 領域	Lowest 最低 ←————→ Highest 最高				
Cost leadership 成本領先	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Price of product/service 產品/服務價格	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Niche market positioning 獨特市場定位	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Quality of product/service 產品/服務質素	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Customized/value added service 稱心服務/增值服務	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Product differentiation 獨特產品	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Innovation 創新	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
New product/service introduction 新產品/服務引入	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
New market development 新市場發展	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Customer relationship 客戶關係	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Operating technological advance 先進運作科技	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Information system 資訊系統	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Employee training 員工培訓	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Section F: External Factors

34. Was your company affected by the economic difficulty in the past six years?

在過往六年期間，貴公司有否受到經濟不景影響

<input type="checkbox"/> Yes 有		<input type="checkbox"/> No 否		
If yes, how did it affect your business? (Please indicate the level of importance on a scale of 1-5) 如有，請說明其影響程度				
Least affect	最少影響	←————→	最多影響	Seriously affect
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

35. Did there any other factors affect your business success or failure?

有否其他原因影響貴公司之成敗

<input type="checkbox"/> Yes 有		<input type="checkbox"/> No 否		
If yes, please specify: 如有，請說明 _____				

36. In your opinion, did the Government have any policy in supporting your business? 就你個人意見，你覺得政府有否相關政策支持你的業務

<input type="checkbox"/> Yes 有		<input type="checkbox"/> No 否		
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37. What is your attitude towards the Government policy concerning small industry of your kind? (Please indicate the level of importance on a scale of 1-5) 就你個人意見，請你指出政府政策對你的行業的支持程度

Least supportive	最少支持	Neutral	普通	最多支持	Most supportive
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	

38. Have you received any assistance from the government funds or subsidiaries?
你有否曾經接受政府的協助或資助

<input type="checkbox"/> Yes 有	<input type="checkbox"/> No 否
If yes, please specify kinds of assistance: 如有，請說明協助形式	
<input type="checkbox"/> Low-interest loans 低息貸款	<input type="checkbox"/> Technical training 技術培訓
<input type="checkbox"/> Government subsidy/tax exemption 政府協助/稅款豁免	<input type="checkbox"/> Equipment/facilities support 工具及設施支援
<input type="checkbox"/> Public facilities support 公共設施	<input type="checkbox"/> Management consultancy/information 管理及資訊諮詢
<input type="checkbox"/> Market development 市場發展	<input type="checkbox"/> Policy/regulation/law 政策/規則/法律
<input type="checkbox"/> Other (please specify): 其他 (請說明) _____	

Section G: Feedback 意見

Please provide feedback on the questionnaire items or on the overall research project in the space provided (optional). 請提供你對此問卷之個別或整體研究意見。

Thank you very much for your time and cooperation in this study. Please make sure that you have completed all items. All information will be kept confidential.
謝謝您的支持，請確保閣下完成所有問題，所有數據均為機密。

Summary Copy of the Results 結果概要副本

Please provide your name and address or enclose your **business card** if you would like a copy of the summary of the results.

如若索取此項研究報告之結果，請提供閣下姓名及聯絡資料或閣下之**名片**，以便日後寄上。

Name 姓名: _____

Address 地址: _____

Contact Tel 電話: _____ Email 電郵: _____

Please be assured that the above information will be used only for sending you a summary copy of the results, if desired. 以上提供之資料只作寄回此研究報告結果之用

Please return the completed questionnaire by using the enclosed self-addressed and stamped envelop to the following address: Cheng Wai Man Raymond, Lingnan University DBA Program, P.O. Box No. 1315, Shatin Central Post Office, N.T.

請將問卷放入附上回郵信封，寄回沙田中央郵局郵箱編號 1315，嶺南大學工商管理研究院，鄭偉民收

APPENDIX 3: RELIABILITY TEST

Reliability - Qualification

Case Processing Summary

		N	%
Cases	Valid	102	100.0
	Excluded(a)	0	.0
	Total	102	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.495	.489	3

Item Statistics

	Mean	Std. Deviation	N
A1	1.84	.365	102
A2	1.16	.365	102
A3	1.37	.486	102

Inter-Item Correlation Matrix

	A1	A2	A3
A1	1.000		
A2	.112	1.000	
A3	.277	.337	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	1.458	1.157	1.843	.686	1.593	.123	3

*****The covariance matrix is calculated and used in the analysis.*****

Reliability – The Importance to Growth

Case Processing Summary

		N	%
Cases	Valid	102	100.0
	Excluded(a)	0	.0
	Total	102	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.665	.661	4

Item Statistics

	Mean	Std. Deviation	N
C1	2.85	.801	102
C2	3.76	.846	102
C3	3.92	.864	102
C4	3.13	.840	102

Inter-Item Correlation Matrix

	C1	C2	C3	C4
C1	1.000			
C2	.226	1.000		
C3	.155	.801	1.000	
C4	.205	.265	.314	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.417	2.853	3.922	1.069	1.375	.259	4

*****The covariance matrix is calculated and used in the analysis.*****

Reliability – Planning and Objective

Case Processing Summary

		N	%
Cases	Valid	63	61.8
	Excluded(a)	39	38.2
	Total	102	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.674	.461	3

Item Statistics

	Mean	Std. Deviation	N
D1	1.05	.215	63
D2	3.06	1.318	63
D3	2.75	1.356	63

Inter-Item Correlation Matrix

	D1	D2	D3
D1	1.000		
D2	-.068	1.000	
D3	-.124	.858	1.000

The covariance matrix is calculated and used in the analysis.

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.286	1.048	3.063	2.016	2.924	1.175	3

*****The covariance matrix is calculated and used in the analysis.*****

Reliability – Training program

Case Processing Summary

		N	%
Cases	Valid	70	68.6
	Excluded(a)	32	31.4
	Total	102	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.766	.767	3

Item Statistics

	Mean	Std. Deviation	N
E1	1.34	.478	70
E2	1.50	.504	70
E3	1.63	.487	70

Inter-Item Correlation Matrix

	E1	E2	E3
E1	1.000		
E2	.722	1.000	
E3	.493	.355	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	1.490	1.343	1.629	.286	1.213	.020	3

*****The covariance matrix is calculated and used in the analysis.*****

Reliability – Technology

Case Processing Summary

		N	%
Cases	Valid	102	100.0
	Excluded(a)	0	.0
	Total	102	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.682	.685	2

Item Statistics

	Mean	Std. Deviation	N
E4	1.47	.502	102
E5	1.27	.448	102

Inter-Item Correlation Matrix

	E4	E5
E4	1.000	
E5	.520	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	1.373	1.275	1.471	.196	1.154	.019	2

*****The covariance matrix is calculated and used in the analysis.*****

Reliability – Marketing Competitions

Case Processing Summary

		N	%
Cases	Valid	95	93.1
	Excluded(a)	7	6.9
	Total	102	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.887	.890	13

Item Statistics

	Mean	Std. Deviation	N
E6	3.71	.849	95
E7	3.37	.864	95
E8	3.05	.749	95
E9	3.35	.908	95
E10	3.35	.954	95
E11	2.76	.821	95
E12	2.77	.750	95
E13	2.80	.752	95
E14	2.93	.815	95
E15	3.93	.841	95
E16	2.52	.810	95
E17	2.49	.861	95
E18	2.33	.868	95

Inter-Item Correlation Matrix

	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18
E6	1.000												
E7	.382	1.000											
E8	.158	.216	1.000										
E9	.148	.188	.598	1.000									
E10	.154	.243	.540	.854	1.000								
E11	.186	.262	.713	.456	.407	1.000							
E12	.276	.379	.571	.385	.262	.685	1.000						
E13	.223	.393	.491	.430	.305	.627	.860	1.000					
E14	.322	.205	.372	.150	.184	.561	.528	.461	1.000				
E15	.267	.184	.192	.326	.311	.297	.259	.279	.349	1.000			
E16	.285	.258	.393	.376	.330	.461	.479	.468	.428	.259	1.000		
E17	.231	.067	.371	.526	.410	.336	.426	.433	.310	.286	.789	1.000	
E18	.204	.122	.529	.570	.504	.455	.411	.443	.335	.252	.680	.777	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.026	2.326	3.926	1.600	1.688	.236	13

*****The covariance matrix is calculated and used in the analysis.*****