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The Hong Kong Polytechnic University

Institute of Textiles and Clothing

Production Sourcing: A Study of Small and  
Medium-Sized Clothing Firms in Hong Kong

Tam Fung Yi

A Thesis  
Submitted in Fulfilment of the Requirements  
for the Degree of Doctor of Philosophy

October 2005



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## **Declaration**

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Moreover, I wish to dedicate this thesis to my dearest parents for their invaluable encouragement throughout the years and unlimited support for my study. Finally, I would like to thank God for his unfailing love and guidance.

## **Abstract**

Small and medium-sized enterprises (SMEs) constitute a large part of the commercial sector, in particular in the clothing industry. In Hong Kong, the clothing industry is the biggest industry consisting a large number of small and medium-sized manufacturing and non-manufacturing firms. It is also a leading export earner for the local economy. Prior to 1994, Hong Kong had been the world's leading exporter of clothing products. Though its leading position has been overtaken by Mainland China since 1994, it is still the world's second-largest clothing supplier by 2002. In recent years, Hong Kong has lost much of its competitive advantages. This has been due to the emergence of low-cost competitors, global over-supply, short product life cycles, falling international prices, and high rents and labour costs in local market. In response to the pressures from both domestic and global competitors, many garment firms in Hong Kong have attempted to sustain their competitiveness by increasingly relying on sourcing production strategically from non-owned affiliates (outsourcing) and/or neighbouring low-cost sites (offshore production).

The objective of this research is to study the Hong Kong small and medium-sized clothing firms in their adoption of production sourcing strategies and buyer-supplier relationships. A two-stage methodology was applied in this research. The first stage was an exploratory study administered by in-depth interviews. In which, the firm-related characteristics of SMEs, different types of sourcing strategies and buyer-supplier relationships, and the motivational factors and critical performance indicators for production sourcing were explored. The second stage was a questionnaire survey used to test the relationships among the firm-related characteristics of SMEs, the perceived importance of motivational factors, the adoption of production sourcing strategies and

buyer-supplier relationships, and the level of satisfaction with the performance of production sourcing. From the responses of 104 small and medium-sized clothing firms, it was found that (1) firm-related characteristics of firm age and firm size, the perceived importance of motivational factors for production sourcing, and the adoption of in+outsourcing strategies have an impact on the SME's satisfaction with their performance of production sourcing; (2) firm-related characteristics of industry sector, firm age, firm size and ownership, and the perceived importance of some motivational factors have an impact on the adoption of sourcing strategies and buyer-supplier relationships; and (3) firm-related characteristics of industry sector and firm size have an impact on some of the motivational factors. The findings provide a deeper understanding of strategic production sourcing in the context of a non-Western country and provide valuable insights for managerial personnel in making their production sourcing decisions.

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# **CHAPTER 1**

## **INTRODUCTION**

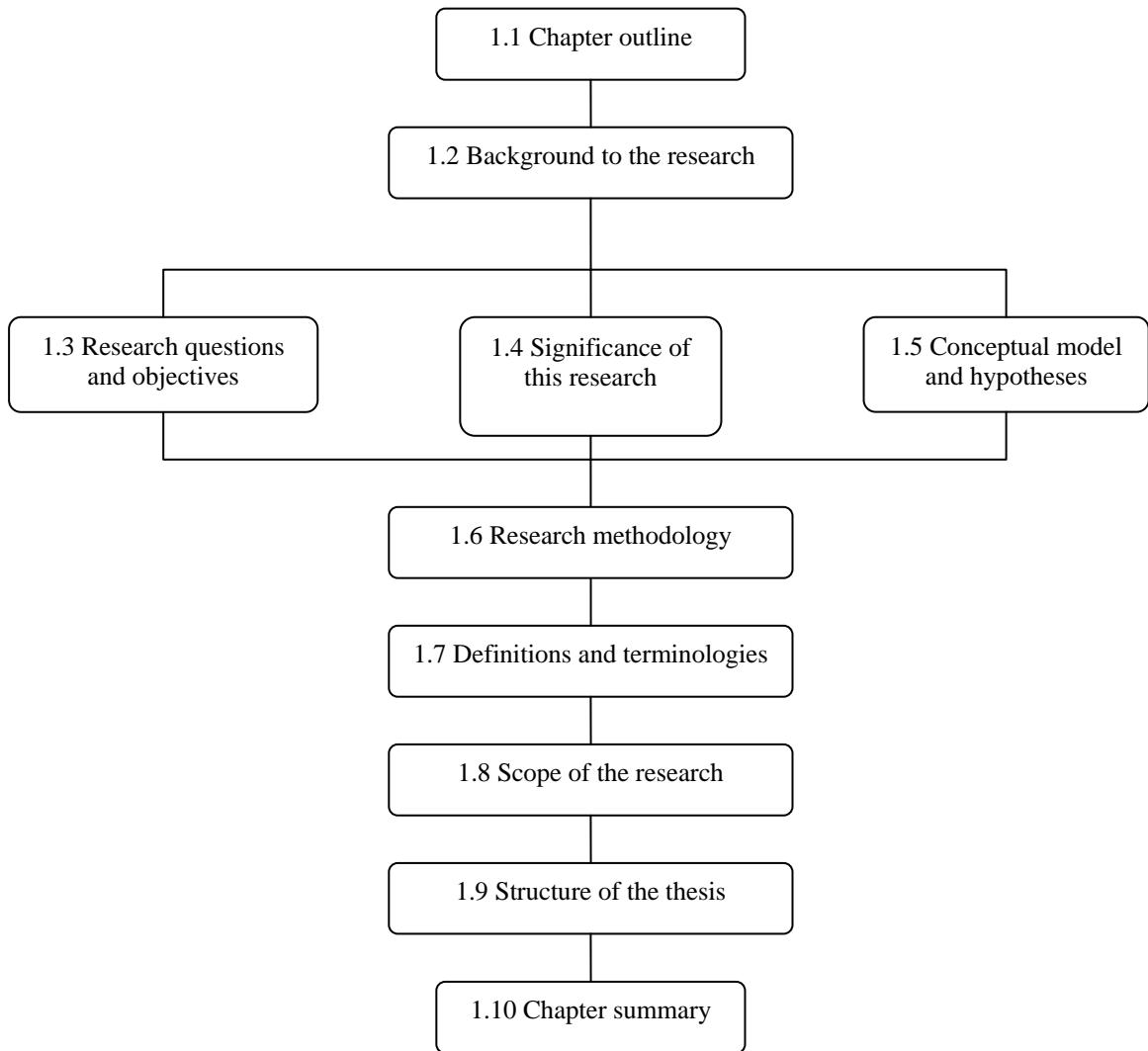
### **1.1 Chapter Outline**

The aim of this thesis is to study the production sourcing of small and medium-sized clothing firms in Hong Kong in terms of their adoption of sourcing strategies and buyer-supplier relationships. Figure 1.1 provides a brief outline of the study. The background to the research is introduced in section 1.2. The research questions and objectives are reported in section 1.3. The significance of this research is discussed in section 1.4. The conceptual model and hypotheses are outlined in section 1.5. The research methodology, definitions and terminologies and scope of the research are presented in sections 1.6, 1.7 and 1.8, together with the structure of thesis in section 1.9. A summary of the chapter is provided in section 1.10.

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**FIGURE 1.1**  
**Outline of Chapter 1**

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Source: Developed for this thesis.

## **1.2 Background to the Research**

Small and medium enterprises (SMEs) positively influence a nation's economic growth, employment, social cohesion, and local development (OECD 2000). The Hong Kong clothing industry consists of a large number of these small and medium-sized manufacturing and

non-manufacturing firms. According to government statistics, over 98% of the companies that engaged in the manufacturing and servicing sectors are SMEs (Hong Kong Trade & Industry Department 2000a). These firms have contributed significantly to the industry's development and prosperity in the last four decades. They are the leading export earners. Indeed, the textiles, clothing and footwear industries generated domestic exports of HK\$65 billion, constituting 67% of the total domestic exports in 2002 (Hong Kong Census and Statistics Department 2003). In dollar terms, Hong Kong is the second largest exporter of textile and clothing products in the world (World Trade Organization 2003).

However, the eminent position of the Hong Kong clothing industry in the international trading arena is being challenged. The industry has been transformed. Firstly, it is shifting away from manufacturing to servicing; secondly, the physical process of manufacturing is moving away from Hong Kong to mainland China or elsewhere; thirdly, the industry's internal structure is changing in terms of overall employment, firm size and number of establishments (Moon 1999). In response to pressures from both domestic and global competitors, many firms have attempted to sustain their competitiveness by increasingly relying on strategic sourcing approaches such as sourcing production outside their firms (production outsourcing) and outside their countries (offshore production).

Pursuing either production outsourcing or offshore production has been regarded as an opportunity to create comparative and competitive advantages (Elmuti and Kathawala 2000; Laseter 1998; Lowson 2001a; Sheth 1996; Villa 1998; Zeng 2000). To a large extent, an organization's profit is determined and defined by its purchases, and sourcing strategically has been considered one of the key drivers for a company to survive and grow (Zeng 2000).

Traditionally, the word “sourcing” refers to the philosophy of selecting vendors in a manner that makes relationships with them an integral part of the buying firm for a particular component or part (Zenz 1994). The characteristics of sourcing strategies are based on the “insource-outsource” or “make or buy” decision (Deakins and Freel 2003; Dekkers 2000; Jennings 2002; Nellore and Soderquist 2000; Park and Krishnan 2001), the location of production site (Frear et al. 1995; Rajagopal and Bernard 1994; Zeng 2000), and the number of suppliers (Ramsay and Wilson 1990; Zeng 2000). In addition, sourcing strategies can be enhanced by the appropriate adoption of buyer-supplier relationships. The buyer-supplier relationship refers to the interaction between buyers and suppliers that involves different kinds of marketing exchange activities such as discrete transactional exchange, repeated transaction, long-term relationship, buyer-seller partnership, strategic alliance, and network organization (Frederick and Webster 1992). These relationships are a powerful tactic to strength sourcing activities (Davies 1995; Krotseng 1997; Monczka et al. 2002; Sheth 1996).

The adoption of a sourcing strategy through establishing buyer-supplier relationships such as long-term relationship or strategic alliance is not confined to large firms. A number of SMEs also actively pursue this strategy (Kimura 2002; Laseter 1998; Villa 1998). However, research that focuses on sourcing by small and medium-sized clothing firms is limited. A search of the electronic databases such as Ingenta, ProQuest, EBSCO and Emerald library for “offshore production”, “sourcing”, “outsourcing”, “SMEs”, “small firm” and “strategy” in the area of fashion marketing and management showed that the rigorous research literature on SME production sourcing strategies in the clothing industry is sparse.

Furthermore, research into the roles of SMEs in making sourcing decisions, how they behave and respond in sourcing production internationally, the factors that influence organizational

decisions about sourcing, and sourcing performance satisfaction is inadequate. The investigation of relevant issues such as firm-related characteristics, motivational factors (MFs), sourcing strategies and buyer-supplier relationships, and those factors that affect the satisfaction with the performance of sourcing production is also lacking. Indeed, many studies show that SMEs are greatly different from large enterprises (Acs et al. 1997; Audretsch 2001; Bruderl and Preisendorfer 1998; Gomes-Casseres 1997; Hall 1995; Kohn 1997; Lee et al. 1999; Mascarenhas 1999). Clearly, there are gaps in the literature about how small and medium-sized clothing firms could source strategically and re-orient themselves to a new direction in the global production environment, especially in the context of Hong Kong. Hence, it is an interest of this study to look into this area.

### **1.3 Research Questions and Objectives**

Thus a series of research questions were addressed in this research:

1. What are production sourcing strategies and buyer-supplier relationships adopted by small and medium-sized clothing firms in Hong Kong?
2. What are the factors that affect a firm's adoption of production sourcing strategies and buyer-supplier relationships, as well as its satisfaction with production sourcing performance?
3. Are there any relationships amongst these production sourcing issues?

To answer these questions, several objectives were set:

1. To provide a general overview of the evolutionary changes of the Hong Kong clothing industry and the problems of production sourcing that are encountered by the clothing firms (Chapter 2).

2. To conduct a literature review to provide a theoretical foundation for the study of production sourcing and a multiple-case study to explore the production sourcing practices of SMEs in Hong Kong (Chapters 3 and 4).
3. To conduct a questionnaire survey to investigate the interrelationships among the firm-related characteristics, the perceived importance of the motivational factors (MFs), the adopted sourcing strategies and buyer-supplier relationships, and the level of performance satisfaction for production sourcing (Chapters 5 and 6).
4. To develop a conceptual model to explain the actions of small and medium-sized clothing firms in Hong Kong in their pursuit of strategic production sourcing (Chapters 5, 6 and 7).
5. To provide an assessment of the contribution and a discussion of the implications of the study, and to recommend future research directions in view of the SMEs' adoption of sourcing strategies (Chapter 8).

#### **1.4 Significance of this Thesis**

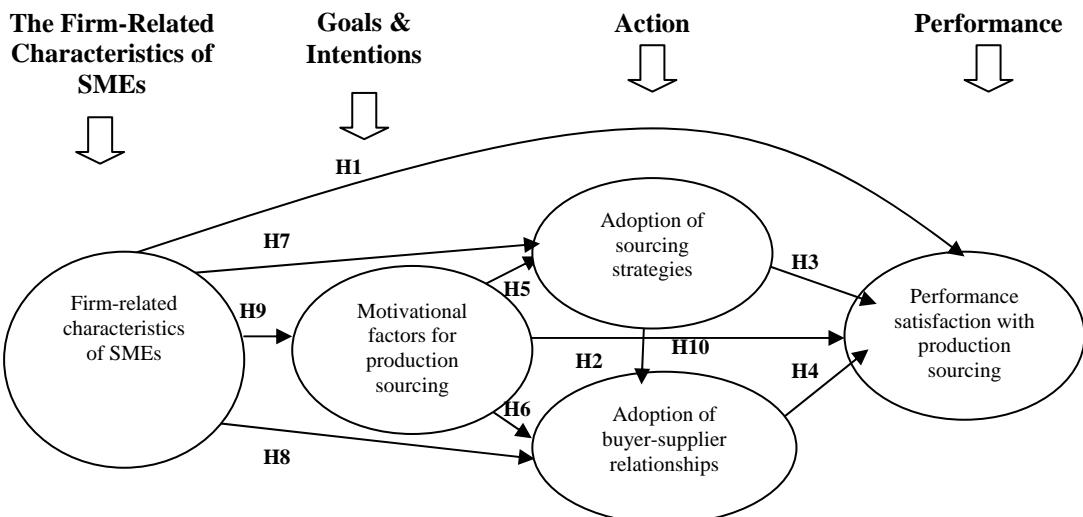
This study is significant at the academic, firm, industry and government levels. At the academic level, it provides a new theoretical framework to explain the production sourcing practices of SMEs. At the firm level, it can provide decision-making guidelines for those SMEs that are intent to develop production sourcing strategies to improve their performance. At the industry level, it can be used as a source of information for depicting the future development of the Hong Kong clothing industry. At the government level, it can be used as a reference for the government in the implementation of industrial policy.

## **1.5 Conceptual Model and Hypotheses**

A conceptual model and ten hypotheses were developed to guide data collection and analysis, as shown in Chapter 5. This conceptual model is largely supported by three theories: the configuration theory (Van de Ven and Drazin 1985, Walker and Ruekert 1987), the growth theory of small firms (Storey 1994), and the goal setting theory (Locke 1991; Locke and Latham 1990). The configuration theory posits that for each set of strategic characteristics that yields superior performance (Van de Ven and Drazin 1985). The growth theory explains how the firm-related characteristics of SMEs, the motivations of entrepreneurs and the strategic decisions of firms influence a firm's performance and growth. The goal setting theory seeks to understand the behaviour of firms, in which the motivation hub consists of goals and intentions, which have a direct relationship with action and performance. Intentions influence decision and goals emphasize the motivational elements (Locke 1991). In turn, strategy is the consequence of a firm's decision or action, and is defined to be the action that is taken by the business owner once in business.

**FIGURE 1.2**  
**A Conceptual Model for this Study**

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Source: Developed for this thesis.

The model in Figure 1.2 links the firm-related characteristics of SMEs, the perceived importance of MFs (goals and intentions), adopted sourcing strategies and buyer-supplier relationships (action), and perceived satisfaction with the performance of production sourcing (performance). Based on this conceptual model, ten hypotheses were developed. A detailed description of the development of this model and its related hypotheses is provided in Chapter 5 and is only briefly stated here.

The satisfaction of SMEs with the performance of production sourcing is affected by:

- firm-related characteristics (H1);
- the perceived importance of MFs (H2);
- the sourcing strategy adopted (H3); and
- the buyer-supplier relationship adopted (H4).

The adoption of sourcing strategy and buyer-supplier relationships is affected by:

- the perceived importance of MFs (H5 and H6); and
- firm-related characteristics (H7 and H8).

The perceived importance of MFs is affected by firm-related characteristics (H9).

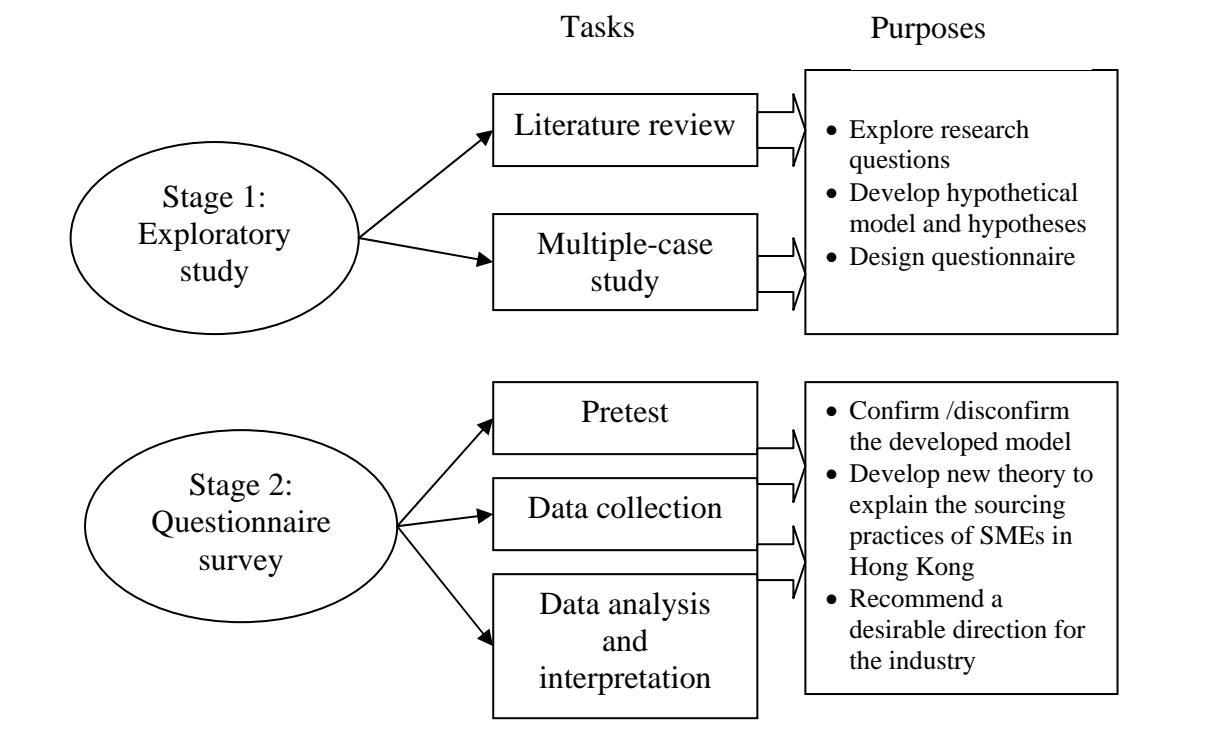
The adoption of souring strategies has a relationship with buyer-supplier relationships (H10).

## **1.6 Research Methodology**

A two-stage methodology was applied in this research, as described in Chapter 6 and illustrated in Figure 1.3. The first stage was an exploratory study to identify relevant issues, gather ideas and insights, explore the research questions, develop a hypothetical model and hypotheses, and prepare the research instrument. The second stage was a questionnaire survey for testing the hypotheses developed in the first stage, finalising the conceptual model and recommending a desirable direction for the Hong Kong clothing industry. A complete description of these two stages is provided in Chapters 4, 5 and 6.

**FIGURE 1.3**  
**Research Methodology for this Study**

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Source: Developed for this research.

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### ***Stage One: Exploratory Study***

An exploratory study is concerned with discovering the general nature of a research problem and variables that relate to a research topic. It is characterised by a high degree of flexibility, and tends to rely on secondary data, small-scale surveys or case analyses (Tull and Hawkins 1993). In this research, the exploratory study was executed through a literature review and a multiple-case study methodology.

To understand the current situation encountered by the target sample firms, historical documents and industry reports were consulted. The results are reported in Chapter 2. To provide a theoretical framework of the research topic, a review of the literature in the areas of firm theories, sourcing strategies, buyer-supplier relationships, MFs and performance satisfaction with production sourcing is discussed in Chapter 3.

Because little research has focused on the production sourcing practices of small and medium-sized clothing firms in Hong Kong, a multiple-case study using individual in-depth interviews of representatives from ten small and medium-sized clothing firms was conducted and is described in Chapter 4. The purpose of this multiple-case study was to ascertain the sourcing strategies and buyer-supplier relationships adopted by SMEs in the Hong Kong clothing industry, and to determine the MFs and critical performance indicators (CPIs) for production sourcing. The perceived importance of MFs and CPIs for production sourcing was also investigated.

### ***Stage Two: Questionnaire Survey***

A questionnaire survey was conducted after the exploratory study to find out: (1) the effects of the firm-related characteristics, MFs, sourcing strategies and buyer-supplier relationships on the perceived performance satisfaction; (2) the effects of the firm-related characteristics and MFs on the adoption of production sourcing strategies and buyer-supplier relationships; (3) the effects of the firm-related characteristics on the perceived importance of MFs; and (4) the inter-relationship between the adoption of sourcing strategies and buyer-supplier relationships.

Before conducting the survey, the developed questionnaire was refined by a pre-test to improve the quality and refine the data collection plan. The survey was administered to obtain data from the practitioners in the Hong Kong clothing industry. A total of 104 usable responses were received. Data from the survey were analysed using Excel and the Statistical Package for the Social Sciences (SPSS). More details of this second stage methodology are in Chapter 6.

## 1.7 Definitions and Terminologies

The key terms used in this study are defined as follows:

- *Firm-related characteristics of SMEs* are associated with factors such as firm size, firm age, business sector, ownership and firm location (Storey 1994).
  - *Firm size* is defined by the number of employees in a firm. The Hong Kong Special Administrative Region (HKSAR) government defines SMEs as manufacturing firms that recruit fewer than 100 local employees and non-manufacturing firms that employ fewer than 50 (Hong Kong Trade and Industry Department 2000a).
  - *Firm age* refers to the number of years in business (Storey 1994).
  - *Sector* refers to the nature of business; i.e. manufacturer or trading agent (Storey 1994).
    - *Garment manufacturer* refers to an organization that has production facilities that are fully-owned, or owned through a partnership or a joint venture.
    - *Trading agent* refers to an organization that does not have any production facilities, and goods and/or services are bought and sold between firms.
  - *Firm location* refers to the site of the parent company (Storey 1994).
  - *Ownership* refers to the legal right or possession of a firm; i.e. fully-owned or joint venture (Storey 1994).
- *Motivational factors (MFs)* are defined as the goals for and intentions of performing a task (Locke 1991).

- *Production sourcing* is defined as the selection of production providers. There are several sourcing strategies in light of three dimensions: insource-outsource decision, number of suppliers and location of production sites.

- Insource-outsource decision (Insourcing versus outsourcing)

*Insourcing* means that the enterprise performs the function internally (King 2001).

*Outsourcing* refers to a strategic perspective on external resources and is an abbreviation of “outside resource using” (Arnold 2000), which means creating value by transferring the responsibility of a specific business function from an employee group to a non-employee group (Zhu et al. 2001).

- Number of suppliers (Single sourcing versus multiple sourcing)

*Single sourcing* involves the idea of reducing the number of suppliers with which a firm does business, and hence the buyers use a sole source (Krotseng 1997).

*Multiple sourcing* refers to a company that has business relationship with a number of suppliers. Each supplier responds to the demands and specifications of a particular quotation from the buying company (Zeng 2000).

- Location of production sites (local sourcing, offshore sourcing, or global sourcing)

*Local sourcing* deals with local production providers. *Offshore sourcing* occurs when some activities involved in the making of a product are performed abroad (Arndt 1997). *Global sourcing* is defined as the integration and coordination of procurement across worldwide business units (Rajagopal and Bernard 1994). Globalization means having establishments or close affiliates in at least four different nations and in two major international regions; e.g Europe, North American and/or Asia (OECD 1997).

- *Buyer-supplier relationship* is defined as the interaction between buyers and suppliers that involves different kinds of marketing exchange activities such as discrete transactional exchange, repeated transaction, long-term relationship, buyer-seller

partnership, strategic alliance, network organization and vertical integration (Frederick and Webster 1992). The buyer-supplier relationship does not include vertical integration because this study focuses only on the relationship of a buyer firm to external production suppliers.

- *Critical performance indicators (CPIs)* are the indicators that reflect the outcomes of the production sourcing. They are used to measure the level of satisfaction that firms felt with the performance of their production sourcing arrangement (Brotherton and Shaw 1996).

## **1.8 Scope of the Research**

The focus of this research is the Hong Kong clothing industry. This delimitation can be justified because Hong Kong is the second largest exporter of textile and clothing products in the world (World Trade Organization 2003). Moreover, Hong Kong is in a privileged site for observing the emergence of Asia as a major player in the global economy (Berger et al. 2004; Enright 1997). Hong Kong has rich experience in manufacturing and managing clothing production, including the experience of identifying the potential opportunities and pitfalls of shifting some activities outside its border. These experiences may provide a reference for those seeking to learn from the early globalizers that shifted their production out of their parent countries in high-wages societies to low-cost labour manufacturing sites in emerging countries, such as China, Vietnam and Cambodia.

That most companies in Hong Kong are SMEs is another justification for delimiting this research. There are approximately 290 000 SMEs in Hong Kong (Hong Kong Trade & Industry Department 2000a), and over 98% of the companies that engaged in the

manufacturing and servicing sectors are SMEs. The government has reaffirmed the importance of SMEs as a significant pillar to the Hong Kong economy (Hong Kong Trade & Industry Department 2000a). Studies reveal that SMEs are very different from large enterprises (Acs et al. 1997; Bruderl and Preisendorfer 1998; Gomes-Casseres 1997; Hall 1995; Kohn 1997; Lee et al. 1999; Prasad 1999; Pratten 1991; Reynolds 1997; Villa 1998) For example, SMEs enjoy the advantages of greater flexibility and higher level of efficiency. They can be innovative, yet need not be bound by a complicated organisational structure (Deakins and Freel 2003). However, SMEs are constrained by their lack of funds and physical human resources. They may have less power in dealing with large organisations because of their size. In conclusion, the special features of the Hong Kong clothing industry and its possession of large amount of SMEs justify the delimitation of scope of this research.

### **1.9 Structure of the Thesis**

The thesis has eight chapters. This chapter described the background of the research, highlighted the research objectives, questions, model, hypotheses, methodology, definitions and terminologies, and justified the delimitation of the scope of this study. Chapter 2 reviews the evolutionary changes of the Hong Kong clothing industry and explains its development of offshore production. The findings provide an overview of the present situation and problems encountered by the clothing firms under study.

Chapter 3 reviews the literature in the areas of firm-related theories, production sourcing strategies, buyer-supplier relationships, motivations and performance satisfaction. This literature review gives an overview of previous research and provides the background and foundation upon which the present study is based. It also leads to the identification of research questions, and to the preparation of a multiple-case study in the next stage.

In turn, Chapter 4 reports the objectives, design and method, data analysis and findings of the multiple-case study. The MFs and CPIs for production sourcing are identified. By conducting in-depth interviews amongst ten small and medium-sized clothing firms in Hong Kong, the results of the multiple-case study further explored the undefined key variables of MFs and CPIs. Hence, a conceptual model of this study is structured in Chapter 5, as are ten research hypotheses based on the research questions raised from the literature review and variables obtained from the multiple-case study in chapters 3 and 4.

Next, Chapter 6 describes the research methodology for the main study. It provides the justification of survey methodology, describes how the questionnaire is designed, discusses the survey strategy and data analysis method, and explains ethical considerations. Chapter 7 presents the results of the statistical analysis based on the hypothetical model. It begins by reporting the descriptive statistics of the responding firms and their production sourcing practices. Then, it provides intermediate analyses such as exploratory factor analysis and correlation. The chapter concludes by describing the interrelationship of the key research variables and confirming or disconfirming the hypotheses with the use of multiple and logistic regressions.

Finally, Chapter 8 closes the thesis by drawing conclusions and providing an overall discussion of the hypotheses, discussing the contributions and implications of this research, and stating the limitations and suggesting future directions for research into the production sourcing practices of SMEs.

## **1.10 Chapter Summary**

This chapter provided an overview of this research by introducing the background of the research, by highlighting the research questions, objectives, model, hypotheses, methodology, definitions and terminologies and significance and scope of the study, and by delineating the structure of this thesis. The following chapter will review the background, development and industry structure of the Hong Kong clothing industry. The opportunities and challenges encountered by small and medium-sized clothing firms will then be highlighted.

## CHAPTER 2

### THE HONG KONG CLOTHING INDUSTRY

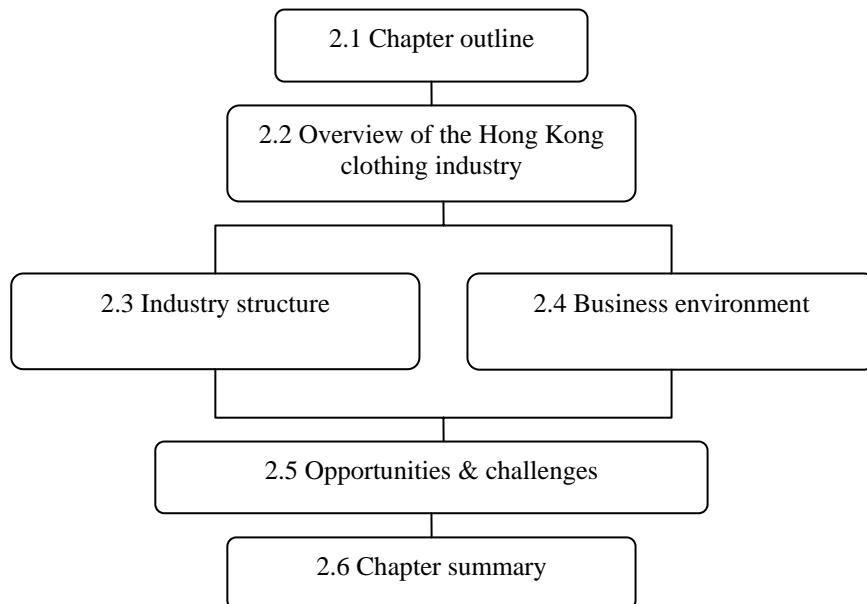
#### **2.1 Chapter Outline**

The objective in this chapter is to provide background information about the Hong Kong clothing industry. Figure 2.1 illustrates the chapter outline. A brief overview of the Hong Kong clothing industry is given in section 2.2. The industry structure and business environment are examined in sections 2.3 and 2.4. The opportunities and challenges for the industry are discussed in section 2.5, and a chapter summary is provided in 2.6, the last section.

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**FIGURE 2.1**  
**Outline of Chapter 2**

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Source: Developed for this thesis.

## **2.2 Overview of the Hong Kong Clothing Industry**

The background of the Hong Kong clothing industry is reviewed in this section. Its stages of development, performance and contribution, products and services, and the relocation of production are provided in the following.

### ***2.2.1 Stages of Development***

The development of the Hong Kong clothing industry generally falls into six stages. The details of each stage are discussed next.

In the first stage, the textile and clothing industries in Hong Kong were started with the entrepreneurial capital and the abundant supply of labour coming from China in the late 1940s. Entrepreneurs and industrialists from Shanghai brought skills, knowledge, and experience in textile and clothing manufacturing to Hong Kong. At that time, the industry was concentrating on the production of yarn and grey cloth using Chinese cotton. Since Hong Kong was one of the colonies of the United Kingdom and because of Commonwealth preferences (Steele 1990), the Hong Kong textile and clothing industries mainly focused on selling their production to the British-owned merchant houses in Hong Kong (Steele 1990; Young and Hood 1985). At this stage Hong Kong was only focused on local production.

The second stage, from 1949 to 1953, the outbreak of the Korean War provided an opportunity to trade United States products with China, which in turn gave Hong Kong textile and clothing companies the chance to enter the US market (Steele 1990).

Then, in the third stage of the late 1950s, the Lancashire cotton industry in United Kingdom was deeply affected by price competition from Hong Kong. Therefore, quota restrictions on cotton textiles from Hong Kong were imposed in the 1960s under the General Agreement on Tariffs and Trade (GATT). A quota is a quantitative limitation; it indicates the maximum amount of garments that can be exported legally by an exporting country to an importing country on an annual basis. Because of this restriction and the rising cost of local labour, Hong Kong textile and clothing companies began to search for new ways to undertake production activities outside Hong Kong. A number of Hong Kong clothing firms set up subsidiaries and branches in other countries, especially in Singapore, Taiwan, and Macau. These countries were selected because of their Chinese cultural background and because labour costs there were low (Au and Yeung 1997; Moon et al. 1997a; Steele 1990; Young and Hood 1985).

The three stages after the 1960, during the 1970s, as more and more export restraints imposed on the Hong Kong clothing industry, Hong Kong textile and clothing companies tried to shift their production to countries with low labour costs such as Mauritius, Malaysia, and the Philippines in order to mitigate the effect of those export restraints. At the same time, they actively explored new markets and some even moved production to developed countries. Hong Kong manufacturers began to establish factories in Western Europe, the United States, and Canada to avoid quota restrictions and to penetrate these markets more effectively (Au and Yeung 1997; Chadha 1992; Moon et al. 1997b). By setting up subsidiaries in the developed countries, producers can better understand what styles and fashions overseas customers like. This can help the companies to further secure the business so that buyers can place their orders directly through the liaison office in the developed countries without travelling to Hong Kong (Au and Yeung 1997).

In the fifth stages, following the establishment of the Open Door Policy in 1979 and economic incentives to locate in the country's newly established Special Economic Zones (SEZs), local authorities in China have been striving to attract foreign direct investment (FDI) into their areas,. The incentives offered in the SEZs, improvements in local infrastructure, and the central government's relaxation of controls over economic activities (Au and Yeung 1997) led to a new era in economic development in both mainland China and Hong Kong.

At the final, sixth stage of development, with its impressive accumulation of regional sourcing knowledge and experience of China and other countries, Hong Kong came to be regarded as a regional sourcing centre (Foroohar 2003; Hong Kong Trade & Industry Department 2000b; Hong Kong Trade Development Council 2003a; Lee 2003; Tam et al. 2005). For example, the Hong Kong Company, Li and Fung has 64 offices in 37 countries to look for the best sources for different components or processes. The policy of not owning any production facilities keeps the company flexible and adaptable. Some manufacturers have stepped up their own marketing efforts by promoting their own brands and selling them directly in overseas markets. Some of these manufacturers, including Law Fashion, Fang Brothers (Toppy), and G2000 have opened retail outlets in cities such as New York, San Francisco, Singapore, and Taipei.

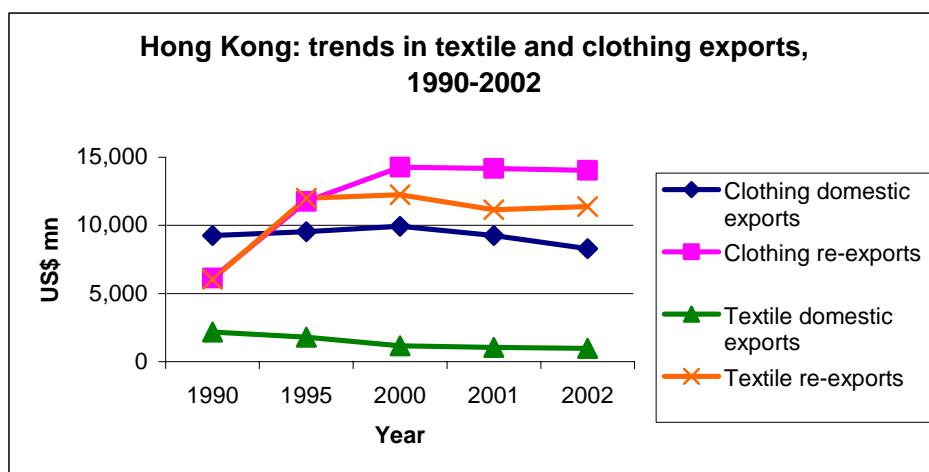
### ***2.2.2 Performance and Contribution***

In these six stages, the textile and clothing industries contribute significantly to Hong Kong's Gross Domestic Product (GDP) in terms of industrial output, domestic exports, and re-exports. Prior to 1994, Hong Kong was the world's leading exporter of clothing. Since then, although mainland China has overtaken Hong Kong in this aspect, Hong Kong is still

the world's second-largest supplier of clothing (Hong Kong Trade & Industry Department 2000b; World Trade Organization 2003).

A large and growing proportion of Hong Kong's clothing exports consists of re-exports<sup>1</sup> of goods made in other countries (as shown in Figure 2.2). Including re-exports, Hong Kong's share of the world market was around 12.1% in 2002 (World Trade Organization 2003), whereas domestic exports alone accounted for only 4.1% of the world market. The increase in Hong Kong's re-export trade is the consequence of rising rents and labour costs in Hong Kong and to attempts to circumvent quota restrictions. These are the factors that have led Hong Kong clothing manufacturers to look for better production environments elsewhere and, consequently, to a decline in domestic production.

**FIGURE 2.2**  
**Hong Kong Trends in Textile and Clothing Exports, 1990-2002**



Source: World Trade Organization (1991 to 2003)

<sup>1</sup> Re-exports are defined as "products that have previously been imported into Hong Kong and that are re-exported without having undergone a manufacturing process in Hong Kong that has permanently changed the shape, nature, form, or utility of the products".

### ***2.2.3 Products and Services***

Hong Kong is known for providing high-quality products. This is the result of rigorous quality control and high standards of quality assurance (Hong Kong Trade & Industry Department 2000b; Hong Kong Trade Development Council 2003a). Indeed, Hong Kong clothing firms traditionally engaged in original equipment manufacturing (OEM), and have now entered the business of original design manufacturing (ODM). Entering the ODM business has been regarded as a move towards the front-end of the value chain (Hong Kong Trade Development Council 2003b). This development expands the dimension of competition from price to quality and design capability.

Hong Kong clothing firms have further developed original brand manufacturing (OBM), that is, the development of brands and distribution networks, and enhancements of the back-end of the value chain. Local retailers such as Giordano, Bossini, and Crocodile, that were originally manufacturers, have been gradually reducing their in-house production capacities and relying more on subcontractors. Indeed, several clothing firms have gradually adopted different kinds of sourcing strategies in order to focus their resources on such key areas as retailing, design and marketing.

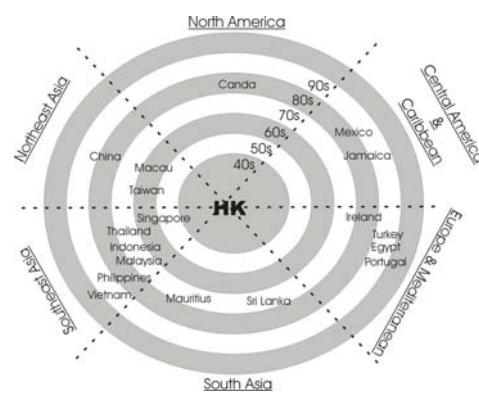
Apart from providing products, Hong Kong clothing firms often offer value-added services to buyers such as product development, raw material sourcing, production planning, factory sourcing, manufacturing control, quality assurance, export documentation, and shipping consolidation. More importantly, Hong Kong clothing firms are able to perform trade-related

services for their clients in an effective manner. Like local trading companies such as Li & Fung, some companies eventually become “virtual manufacturers” with the outsourced production by providing excellent services to buyers.

#### **2.2.4 Production Relocation**

The Hong Kong clothing industry attempted offshore production as early as the mid-1960s. The pace of geographical diversification speeded up in the 1980s and the incentives to move production overseas were more compelling than ever by the end of the 1980s. The offshore production activities started in Northeast Asian countries such as Taiwan and Macau, as illustrated in Figure 2.3. But in the 1970s, operations moved to South and Southeast Asian countries such as Thailand, Malaysia, Sri Lanka, and Mauritius. In the 1980s, Third World countries such as mainland China, the Philippines, the Caribbean, and some developed countries such as Western European countries, the United States, and Canada were added to the preferred list of offshore production locations. In the 1990s, offshore production became more globalized, and Hong Kong clothing firms attempted production in such countries as Vietnam, Turkey, Egypt, and Portugal.

**FIGURE 2.3**  
**The Regional Structure of Shifts in Production in the Hong Kong Clothing Industry from the 1940s to the 2000s**



Source: Developed for this thesis.

## **2.3 Industry Structure**

Following the general introduction to the industry above, this section considers the present industry structure of the Hong Kong clothing industry to facilitate an assessment of the opportunities and challenges facing the industry. Ten aspects are studied: establishment, employment, firm size, regulatory system, and support bodies.

### ***2.3.1 Establishment***

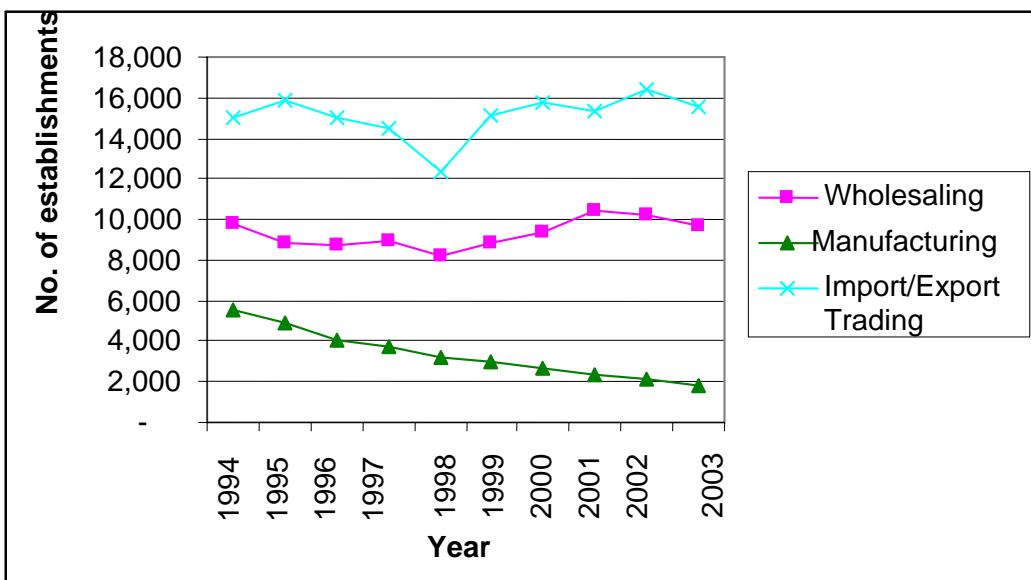
The number of clothing manufacturing, wholesale and trading establishments<sup>2</sup> in Hong Kong declined from 1994 to 2003 (see Figure 2.4). The number of establishments in the manufacturing sector dropped by 67% over the same ten-year period (from 5,539 to 1,805) and in the retail sector by 1.5% (from 9,832 to 9,682). The number of establishments in the import/export trading sectors has remained stable, except in the period between 1997 and 1999 when trade was affected by the Asian financial crisis. The manufacturing sector has been showing a trend of decline, mainly because of the relocation of manufacturing plants to offshore countries where the supply of manpower is abundant and operating costs are low.

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<sup>2</sup> An establishment is defined as an economic unit that engages, under a single ownership or control, in one or predominantly one kind of economic activity at a single location; e.g., an individual factory workshop, retail shop, and office. On the other hand, an enterprise refers to a collection of establishments under the same ownership or control that performs production activities in pursuit of the business objectives of the enterprise (Hong Kong Census and Statistics Department 2003)

**FIGURE 2.4**  
**The Number of Establishments in the Hong Kong Clothing Industry**

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Source: Hong Kong Trade and Development Council.

### 2.3.2 Employment

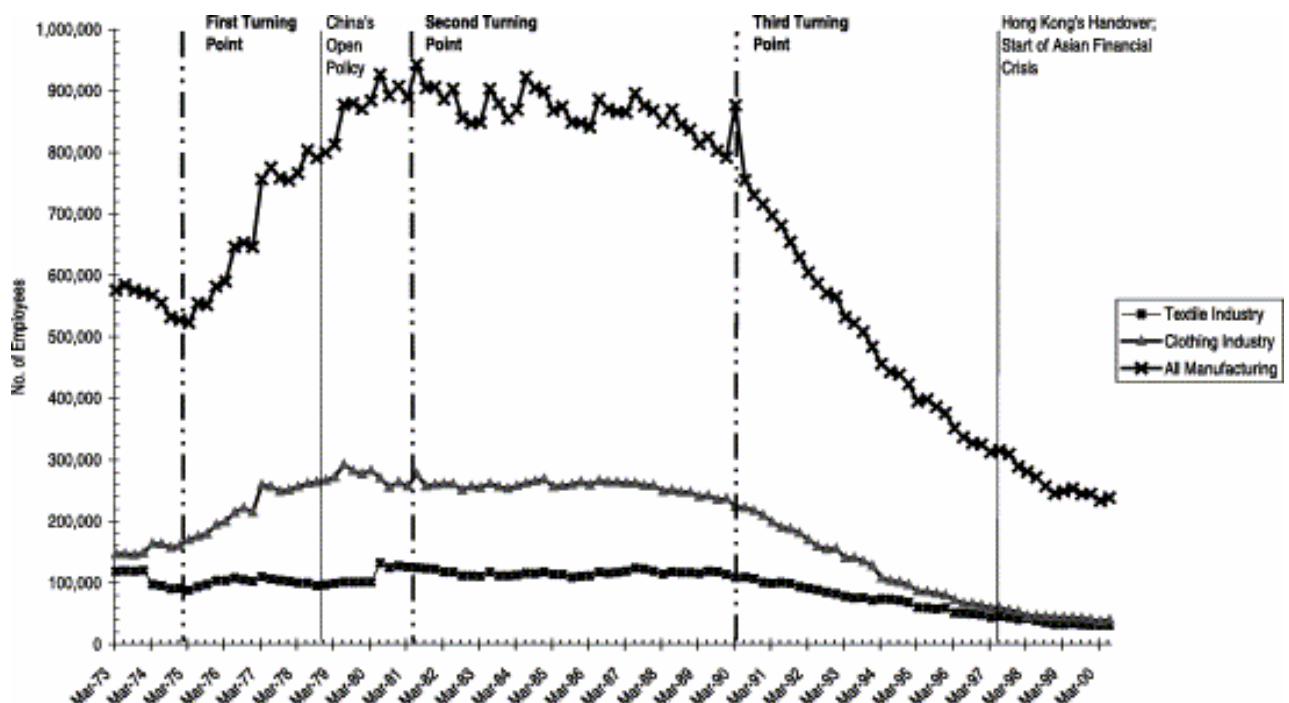
Employment in the textile and clothing industries declined gradually in the 1980s and rapidly in the 1990s. China's Open Door Policy, launched in 1979, was an important turning point that encouraged the relocation of Hong Kong industries to mainland China (Enright 1997; Loo 2002), as shown in Figure 2.5.

Three major turning points in the evolution of employment in the Hong Kong textile and clothing industries have been identified (Loo 2002) and are shown in Figure 2.5. The first turning point was the first quarter of 1975, which marked a period of growing industrial employment. In the first quarter of 1975, the number of employees in the textile, clothing, and all manufacturing sectors was 88,209, 169,665 and 522,563, respectively. The Open Door Policy of 1979 did not generate immediate downward pressure on employment. The impact became evident at the second turning point, the second quarter of 1981 when a

gradual but steady reduction in manufacturing employment set in, and the textile and clothing industries suffered a slow decline. The last turning point was the first quarter of 1990 when the number of employees in the textile and clothing sectors dwindled to 30,910 and 39,554, respectively, in the second quarter of 2000. Nevertheless, these industries were still the largest employers of all manufacturing industries in Hong Kong (Hong Kong Trade & Industry Department 2000b).

**FIGURE 2.5**  
**Quarterly Employment in the Textile, Clothing, and All Manufacturing Industries,  
 March 1973 - June 2000**

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Source: Loo (2002)

### 2.3.3 Firm Size

Another structural change in Hong Kong since the 1970s has been the dwindling size of firms in terms of the number of employees. The average size of firms in the textile and clothing industries declined from 1967 to 2000 (see Figure 2.6). In June 1968, average textile firm and

clothing firm had 73 employees and 55 employees, respectively. By June 2000, this had dropped to 14.1 and 18.0 only.

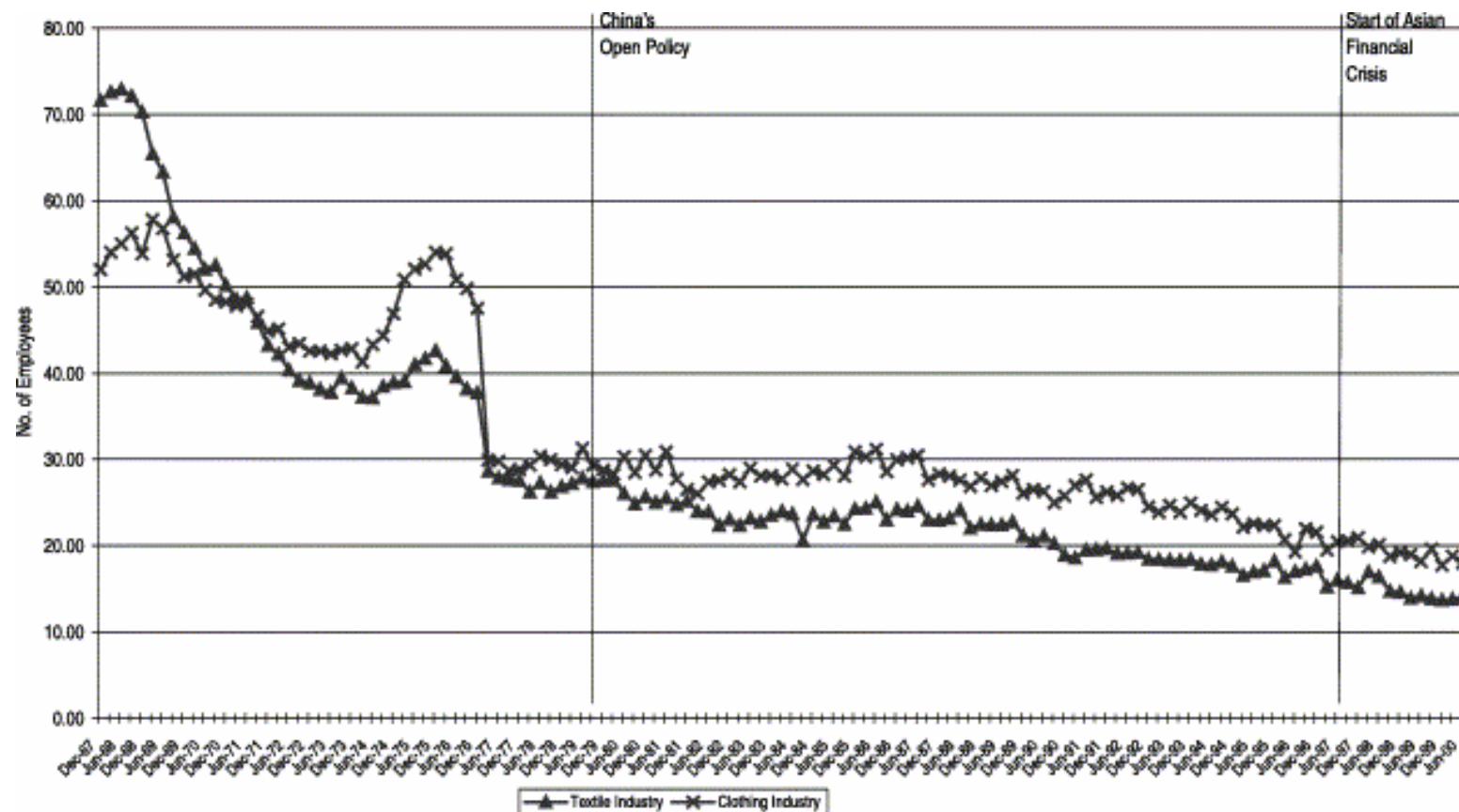
The Hong Kong textile and clothing industries are characterized by a large number of small firms. Over 98% of companies engaged in the manufacturing and servicing sectors are SMEs. This implies that downsizing has been one of the most prevalent business trends for SMEs because of their limited resources. Downsizing involves a redefinition of a firm's scope of business. Indeed, downsizing can be enhanced by outsourcing (Reynolds 1997; Villa 1998). Firms can, therefore, increase their production capacities and enjoy economies of scale. Downsizing together with outsourcing enables firms to achieve greater specialization and internal flexibility, and also allows management and production to become more focused on areas of greater priority.

#### ***2.3.4 Regulatory System***

Another aspect of the structure of the Hong Kong clothing industry is the regulatory system. In the 2003 Index of Economic Freedom released by The Heritage Foundation, for the ninth consecutive year Hong Kong was rated the freest economy in the world ([www.tdctrade.com](http://www.tdctrade.com)). Hong Kong is also the best-performing host economy for foreign direct investment (FDI) in Asia ([www.tdctrade.com](http://www.tdctrade.com)), according to the World Investment Report 2002 of the United Nations Conference on Trade and Development (UNCTAD).

**FIGURE 2.6**  
**Average Firm Size in the Textile and Clothing Industries, December 1967-June 2000**

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Source: Loo (2002)

With regard to regulatory system related to production, the Outward Processing Arrangement (OPA) has helped Hong Kong clothing manufacturers leverage on offshore production (Hong Kong Trade & Industry Department 2000b). All goods subject to the OPA must have undergone their principal manufacturing processes in Hong Kong. Under the OPA Hong Kong clothing firms are allowed to subcontract part of the manufacturing process outside Hong Kong, while at the same time declaring Hong Kong as the country of origin. Hong Kong clothing manufacturers can, therefore, make use of their Hong Kong quotas to export to restrained markets such as United States, Europe, and Canada.

### ***2.3.5 Supporting Bodies***

Another aspect of the structure of the Hong Kong clothing industry is supporting bodies. The strength of the Hong Kong clothing industry stems from the support it receives from trade associations and the government. Various trade associations in Hong Kong have been set up to address the needs of the clothing companies as well as to build a network of relationships among their members, such as the Hong Kong General Chamber of Commerce, the Hong Kong Exporters' Association, the Federation of Hong Kong Garment Manufacturers, and the Hong Kong Apparel Society. The latter focuses on small and medium-sized clothing firms. In supporting the Hong Kong clothing industry to become a sourcing hub and fashion centre in the region, the Hong Kong government has established several organizations, such as the Trade Development Council (TDC), the Hong Kong Trade and Industry Department (TDI), the Hong Kong Productivity Council - SME centre, and so forth.

## **2.4 Business Environment**

The structure of the Hong Kong clothing industry has been described above, this next section focuses on its business environment. The infrastructure, relationship with overseas buyers, network of trading partners, quality and management, and CEPA are provided in the following:

#### **2.4.1 Infrastructure of the Hong Kong Textile and Clothing Industries**

The textile and clothing companies have retained their management and operation centres in Hong Kong with a well-established business infrastructure (Foroohar 2003; Hong Kong Trade & Industry Department 2000b; Hong Kong Trade Development Council 2003a; *The Economist* 2001). Hong Kong was the first major city in the world to have adopted a fully digitized telephone network, and it has the highest intensity of telephone lines in the Asian region, which enables Hong Kong clothing firms to communicate efficiently with overseas buyers. Hong Kong also has the world's most efficient and busiest container ports and airports for international cargoes. Indeed, in 2000, Hong Kong was ranked the world's leading container port (*The Economist* 2001). Modern transportation facilities give Hong Kong companies an additional speed advantage in delivering goods to their buyers. Fully 95% of overseas importers considered good telecommunications and transportation facilities to be very important assets to Hong Kong's role as a sourcing hub in the region (Hong Kong Trade Development Council 2003a).

#### **2.4.2 Relationship with Overseas Buyers**

Hong Kong clothing companies have established long-term relationship with overseas buyers and local counterparts as they understand the importance of maintaining a good relationship

with consumers. Moreover, they are able to provide value-for-money products, as well as value-added services including quality assurance, on time delivery, effective customer services, flexible production that can meet urgent orders, and so forth. As perceived by many buyers from key markets, Hong Kong products are of high and consistent quality and the image of “Made in Hong Kong” and “Made by Hong Kong” still represents better quality than goods made in many other countries and value-for-money (Berger and Lester 1997; Hong Kong Trade & Industry Department 2000b).

#### **2.4.3 Networking with Trading Partners**

Hong Kong clothing companies also specialize in building networks with local and overseas suppliers so that they can respond flexibly, rapidly, and reliably to buyers’ requests (Hong Kong Trade & Industry Department 2000b; Lee 2003). They can also select their suppliers from different trade shows such as Interstoff Asia and Hong Kong Fashion Week. Some large textile manufacturers have established vertical operations in mainland China or other offshore locations in order to offer a one-stop-shop service to their customers. Trading companies also offer value-added services to their customers by providing one-stop-shop services such as spanning design work, manufacturing samples, quality control, and production engineering,

#### **2.4.4 Quality and Management**

With strong experience accumulated over several decades, Hong Kong clothing industries possess both market and production knowledge, which is fundamental to developing sound business and production strategies. For instance, some Hong Kong clothing firms have attained international qualifications by applying for ISO9000 certification. For example, TAL adopted the total quality management (TQM) programme in 1999 to achieve faster customer

responses, fewer order entry errors, less reworking, etc. Through the application of TQM, LEs or even some SMEs are capable of handling major overseas buyers such as Disneyland and Marks & Spencer, which normally have very stringent requirements on quality. Furthermore, in view of the market dynamics and ever-changing fashion trends around the world, buyers are under intense pressure to shorten the time to market. In response to this, the lead-time in textiles and clothing industries has also shortened (Hong Kong Trade & Industry Department 2000b). For example, finishing a cut-and-sewn clothing product takes only 30 to 60 days, and a knitted product takes 45 to 90 days.

#### **2.4.5 Closer Economic Partnership Arrangement (CEPA)**

The conclusion of the Closer Economic Partnership Arrangement (CEPA) with mainland China in June 2003 has allowed Hong Kong-made clothing items to enjoy duty-free access to mainland China since 1 January 2004, whereas non-Hong Kong made clothing remains subject to tariffs ranging from 14 to 21.3 per cent (2003c). Generally, CEPA allows faster and wider accessibility to the mainland market. For foreign firms who are targeting the China market with products of Hong Kong origin, the prospect would be brighter than exporting garments to China from countries other than Hong Kong. The CEPA may strengthen the possibility of turning Hong Kong into a service hub and a global platform for China business. All in all, the conclusion of CEPA has encouraged Hong Kong clothing manufacturers to keep part of their production process in Hong Kong. However, Hong Kong clothing manufacturers are unlikely to move their operations that have already been relocated to mainland China or elsewhere outside Hong Kong, back to Hong Kong. Even under the CEPA, with zero tariffs applied to products of Hong Kong origin, there is still a significant cost advantage in producing offshore (Anson et al. 2003).

Furthermore, the extension of operations to 24 hours at the border zones has further improved the integration of Hong Kong and mainland China. Easier border crossings make it more appealing to China-based companies to establish businesses in Hong Kong and bolster Hong Kong's role as a business centre for those companies. For those Hong Kong based clothing firms with factories in mainland China, making it easier to cross the border to mainland China has expedited the transport of raw materials, parts, and components from Hong Kong to their factories as well as exports of finished merchandise through Hong Kong.

## **2.5 Opportunities and Challenges**

The review above of the industry structure and environment provides the foundation for identifying the opportunities and challenges faced by the Hong Kong clothing industry. The following two sub-sections examine the challenges and opportunities for Hong Kong clothing firms in detail.

### **2.5.1 Challenges**

Given the dynamic international and local trading environments, the Hong Kong clothing industry has been facing several challenges. They are discussed next.

*Increasingly strenuous environment.* Prior to the 1980s, the clothing industry flourished in Hong Kong by focusing on labour-intensive activities at a time when wages were low and the sector industry faced little international competition. However, this situation changed significantly during the 1980s as labour-intensive processing activities expanded in Northeast, Southeast and South Asia. A shortage of workers in Hong Kong led to wage inflation and greater pressure to improve the efficiency of existing resources. At the same

time, Hong Kong clothing manufacturers began to face greater competition from economies with lower labour costs. As costs rose, companies started to shift manufacturing from Hong Kong to a number of other overseas countries in the 1980s in order to reduce production costs and regain their competitive advantages. Inevitably, as a result of such moves, manufacturing activities in Hong Kong declined. Many clothing manufacturers have transformed themselves from manufacturers to trading agents because of the decline of the domestic garment production industry. This transformation has further reduced the size of clothing firms.

*Rising competition.* A recent study on the impact of the North American Free Trade Agreement (NAFTA) on United States trade revealed a noticeable shift in United States clothing impact from Asia towards the Americas (Hong Kong Trade & Industry Department 2000b). Because of the tariff-free status of clothing imports from Mexico and parts of the Caribbean, United States retailers and importers are now sourcing some categories of clothing from American suppliers, rather than Asian suppliers. American suppliers also have the advantage of being close to the United States consumer market, thereby reducing their shipping times and allowing them to respond quickly.

Similarly, Hong Kong's position in supplying clothing to Western Europe is being challenged by the countries of Eastern Europe. Indeed, Eastern European companies achieved better access to the Western European market after the formation of European Union regional trading blocs in 1993. As a result, many Western European companies began to invest in clothing factories in Eastern Europe, and Hong Kong clothing manufacturers are losing market share in the Western Europe's clothing market.

Meanwhile, the direct sourcing from China by overseas buyers is starting to pose a challenge to Hong Kong clothing firms. Clothing companies in Hong Kong have suffered further since China joined the WTO in late 2001 (Hong Kong Trade and Industry Department 2000b). The reduction of import tariffs is making it cheaper and easier to import from China. China's clothing exports are expected to increase further, and overseas buyers will prefer to source directly from China and bypass Hong Kong to get better prices.

*Abolition of quotas.* Under the provisions of the ATC, all clothing quotas are to be phased out by 2005. Hong Kong's historical advantage as a quota shelter will disappear. Quota restrictions are currently used to shelter Hong Kong from intense price competition. For instance, in the past buyers often sourced from Hong Kong rather than mainland China, because a quota was generally easier to obtain for exports from Hong Kong than China. But once the export restrictions are removed from low-cost production countries, Hong Kong will be forced to face international competition.

### **2.5.2 Opportunities**

Although Hong Kong clothing firms are facing more intensive competition, a dynamic environment, and the loss of Hong Kong's quota shelter, the abolition of quotas will also bring opportunities to Hong Kong such as enhancing upstream services, developing a one-stop sourcing hub, and emphasizing a global production network.

*Enhancing upstream services.* The abolition of quotas will represent a greater opportunity for SMEs than to larger firms because SMEs have been facing greater difficulty obtaining quotas than Les as a result of their limited resources. Hong Kong clothing companies, especially SMEs, should transform their position by enhancing upstream activities and providing

value-added services to overseas buyers, such as product development, raw material sourcing, production planning, factory sourcing, manufacturing control, quality assurance, export documentation, and shipping consolidation (Hong Kong Trade & Industry Department 2000b; Hong Kong Trade Development Council 2003a). More importantly, Hong Kong clothing firms should improve their ability to perform trade-related services for their clients in an effective manner.

*One-stop sourcing hub.* Moreover, the Hong Kong clothing industry could tap into the world's resources, particularly mainland China's, and become a virtual producer (Hong Kong Trade Development Council 2003a). Hong Kong should enhance its position by developing into a one-stop sourcing centre by providing total services from design, supply chain management, and advice and consultation on production management. As Hong Kong clothing firms are becoming smaller in size, clothing companies should enhance their core competencies, such as design, brand development, or marketing. By engaging in several kinds of outsourcing activities, a firm can enlarge its limited resources and enjoy economies of scale, thus enabling it to add excellent value to the products or services it offers to buyers.

*Global production network.* In view of globalization and intensifying competition, there is no doubt that a company with the ability to make use of global networks will be able to capitalize on the available opportunities. Using technology and accumulated experience in supply chain management and adopting virtual sourcing will help a company to overcome physical trade barriers such as geographical distance, to leverage on low-cost production, and to achieve the best quality in order to provide the best to customers.

## **2.6 Chapter Summary**

This chapter provided an overview of the Hong Kong clothing industry, examined the industry structure and business environment, and discussed the opportunities and challenges faced by the Hong Kong clothing industry. Indeed, Hong Kong clothing firms have been subjected to several internal structural changes such as the size of firms and the number of establishments. These changes have been made to cope with the arduous economic environment, rising competition in regions, and the removal of quotas. In the face of these new challenges, Hong Kong clothing firms should improve and strengthen their abilities in such areas as upstream services, and should also try to develop themselves into a one-stop sourcing hub, as well as to extend their global production network by adopting a proper production sourcing strategy. In the next chapter, theories on the firm, production sourcing strategies, buyer-supplier relationships, and sourcing and performance will be discussed.

## **CHAPTER 3**

### **LITERATURE REVIEW**

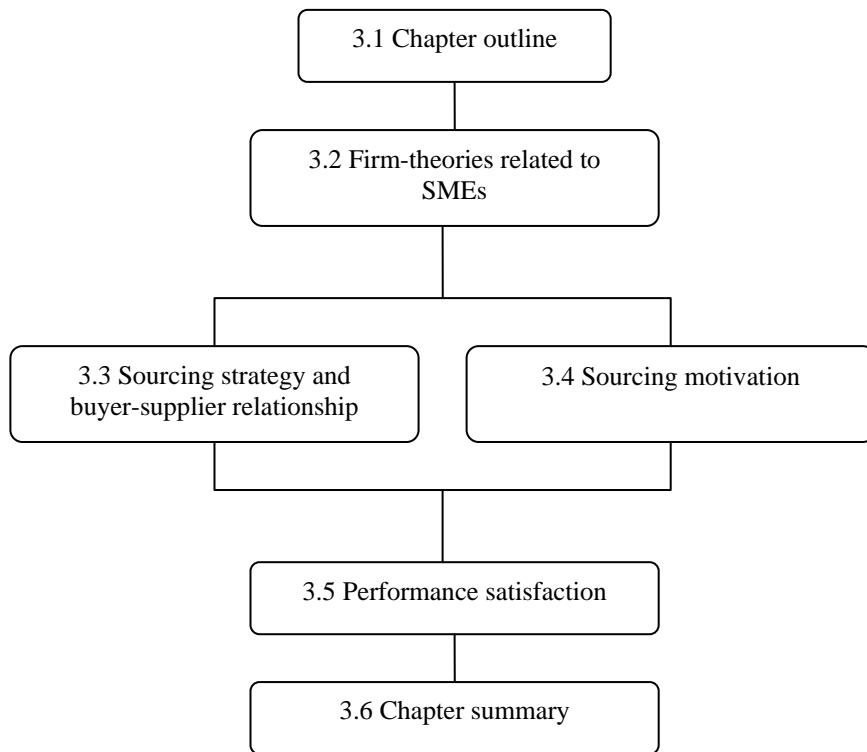
#### **3.1 Chapter Outline**

The aim of this chapter is to review the literature regarding firm theories, sourcing strategies, buyer-supplier relationships, motivations for sourcing and satisfaction with the performance of sourcing production. A literature review is the selection of available documents on the topic, which contain information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed (Hart 1998). The literature review of this research began with an examination of relevant books and recent or historically significant research articles. This chapter is organised into six sections, as shown in Figure 3.1.

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**FIGURE 3.1**  
**Outline of Chapter 3**

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Source: Developed for this thesis.

### **3.2 Firm-Theories Related to SMEs**

In many industrial countries, empirical studies show that small and medium enterprises (SMEs) play an important role in the economic and social life (Burns 2001; Deakins and Freel 2003; Pratten 1991; Storey 1994). Many governments recognize the importance of SMEs and their contribution to economic growth, employment, social cohesion and local development (OECD 2000). SMEs represent between 96% and 99% of the total number of enterprises in most OECD economies. Micro-enterprises (0 to 9 employees) account for between 70% and 90%, while small firms (0 to 49 employees) constitute at least 95% of the

total (OECD 2002). Only 0.5% of enterprises in the manufacturing sector in OECD countries employ more than 500 people. In Hong Kong, there are approximately 290 000 SMEs, accounting for 98% of local enterprises (Hong Kong Trade & Industry Department 2000a). Indeed, many studies have shown that SMEs are the engines of global economic growth due to their special features (Acs et al. 1997; Bruderl and Preisendorfer 1998; Gomes-Casseres 1997; Kohn 1997; Lee et al. 1999; Prasad 1999; Pratten 1991; Reynolds 1997; Villa 1998). Therefore, it is necessary to have a better understanding of the firm behaviour of SMEs in the context of the Hong Kong clothing industry. The aims of this section are fourfold: (1) to review the definition of SMEs and ways to measure what constitutes an SME; (2) to examine the characteristics of SMEs; (3) to study growth theories of small firms; and (4) to focus on studies related to the strategies adopted by SMEs.

### ***3.2.1 Definition and Measurement of SMEs***

The term SME covers a wide variety of definitions and measures. Determining whether a firm is an SME can be done by calculating the employment, sales, or profits of a firm. However, SMEs are generally considered to be non-subsidiary, independent firms that employ fewer than a given number of employees (OECD 2002). This number varies in different countries. SMEs in Hong Kong are defined as manufacturing firms that recruit fewer than 100 local employees, and non-manufacturing firms that employ fewer than 50 (Hong Kong Trade & Industry Department 2000a). A firm that has an informal relationship with a large group, is part of a network, is a subcontractor, or even a subsidiary would not be included as a part of an SME (OECD 1997). In a global economy, however, the important thing is not so much the definition of an SME, but the effect of the firm's strategic attitude such as its propensity to commence international activities (OECD 2002).

### ***3.2.2 Characteristics of SMEs***

There are differences between small and large enterprises. Small businesses are not distorted by size, human interactions or history (Pratten 1991). However, they are constrained by a lack of funds and stability, and by their disadvantageous position in dealing with large organizations. Moreover, they have fewer physical human resources. The major characteristics of SMEs are discussed as follows.

*Flexibility.* SMEs enjoy the advantages of greater flexibility, a higher level of efficiency, and an uncomplicated organizational structure. SMEs are often more flexible than large firms in meeting the needs of a multitude of individuals, in adapting to new customer requirements, making changes to their workforce, adopting new equipment and techniques, and making decisions quickly (Hall 1995).

*Innovation.* One potential source of advantage for an SME is the unique character or quality of its products. The obvious recipe for SMEs is to discover or develop a new product or service (Pratten 1991). An SME may develop a product that performs, or is believed to perform, better than existing products. SMEs may innovate by using new or different processes, by using different factors of production to make a product at a lower cost, or by providing a better service to customers than large capital-intensive enterprises. Indeed, SMEs are at the forefront of the development of new industries, technologies and market niches (OECD 1997; OECD 2002; OECD 2000).

*Efficiency.* Efficiency refers to the situation in which a firm may use factors of production that are similar to those used by other firms but be able to get more from them (Pratten 1991). Regarding the efficiency of production, low overheads are a source of competitiveness; this

implies that the SME has a cost advantage. In addition, SMEs can maintain better labour relations due to the simplicity of their organizational structure, and this can raise their level of efficiency.

*Economies of scale.* Economies of scale are reductions in average unit costs attributable to the increases of the scale of output (Pratten 1991). Thus, as output increases, unit costs fall. Economies of scale are related to the size of plants, the size of batches and the size of firms or industries. Large enterprises (LEs) tend to receive preferential prices from overseas factories because of their production volumes. It seems that economies of scale are one of the disadvantages faced by SMEs.

*Selling and marketing.* In general, SMEs lack the resources and capabilities to develop their own domestic markets and those overseas (Lee et al. 1999). In contrast, LEs have more power and influence on markets of all kinds; which means that they are less vulnerable to problems of quality and delivery (Christerson and Appelbaum 1995). Managers believe that the main areas in which SMEs are handicapped are selling and marketing, whereas large companies enjoy greater recognition, credibility and stability than SMEs (Pratten 1991).

*Production.* SMEs may have difficulties obtaining venture capital, lack market power, or have insufficient production capacity (Villa 1998). LEs often account for the majority of the production of a single factory, because they deal with larger volumes of production (Christerson and Appelbaum 1995). Thus, LEs can demand higher levels of quality and gain access to the best factories because they can guarantee that a factory will receive constant work. SMEs, however, lack of those advantages.

*Research and development (R&D).* LEs have much greater sales of products to which their expenditure in R&D is related, and their development costs can be spread over a large output, thus reducing costs per unit. In contrast, SMEs can only develop products, and do not engage in basic research. Thus, SMEs can only gain market share or compete with LEs by applying existing technology in new ways and by producing new and improved products (Pratten 1991).

### **3.2.3 Growth of Small Firm**

The development of theories on the small firm have focused on analysing the factors that condition the growth and performance of small firms (Audretsch 2001; Becchetti and Trovato 2002; Cowling 2004; Gibrat 1931; Havens and Senneseth 2001; Mambula 2004; Mata and Portugal 2004; Nicolini 2001; Storey 1994; Wagner 2001). An understanding of how firms grow can help them strengthen their organizations and create value. There are several approaches and theories on this issue.

Consider the first theory, called Gibrat's Law. Gibrat's Law (1931) was the outcome of the first study on the determinants of firm growth (Becchetti and Trovato 2002). This law consists of two main arguments: that the rate of growth of a firm is independent of its size in the first phase of establishment; and that the probability of a given rate of growth during a specific time interval is the same for any firm within the same industry. However, many researchers have rejected these hypotheses. Indeed, some studies show that the growth of a firm is related to its size (Dunne and Hughes 1994; Evans 1987a; Wing et al. 1996), and that small firms grow faster than large firms. Therefore, other theories have been raised to accommodate these findings.

The Learning Theory (1965) by the Boston Consulting Group has attempted to make up for the limitations of previous approaches. This theory emphasises the importance of learning for an organisation (Ghemawat 2001). It explains that the growth of firms relate to the effect of accumulated experience. For each cumulative doubling experience, total costs decline by roughly 20% to 30% because of economies of scale, organizational learning and technological innovation.

The leaning theory was extended by the growth of small firm theory (Storey 1994), in which three components of growth are categorised: the characteristics of the entrepreneur, the characteristics of the firm and the characteristics of corporate strategy.

In the growth of small firm theory, there are 15 characteristics of an entrepreneur, 5 characteristics that related to a firm and 14 elements for the characteristics of corporate strategy. The characteristics of an entrepreneur refer to the individual or individuals who provide the prime managerial resources of the small business. The elements can be measured or accessed before starting the business, and they include motivation, unemployment, education, management experience, number of founders, prior self-employment, family history, social marginality, functional skills, training, age, prior business failure, prior sector experience, prior firm size experience and gender.

There are five characteristics of firms, which reflect the decisions made by the entrepreneur upon starting the business (Storey 1994): firm age, sector, location, size, and ownership. There are 14 characteristics of corporate strategy. Corporate strategy is the consequence of managerial actions. The elements are workforce training, management training, external equity, technological sophistication, market position, market adjustments, planning, new

products development, management recruitment, state support, exporting, competition, and information and advice. However, these corporate strategies may change from time to time.

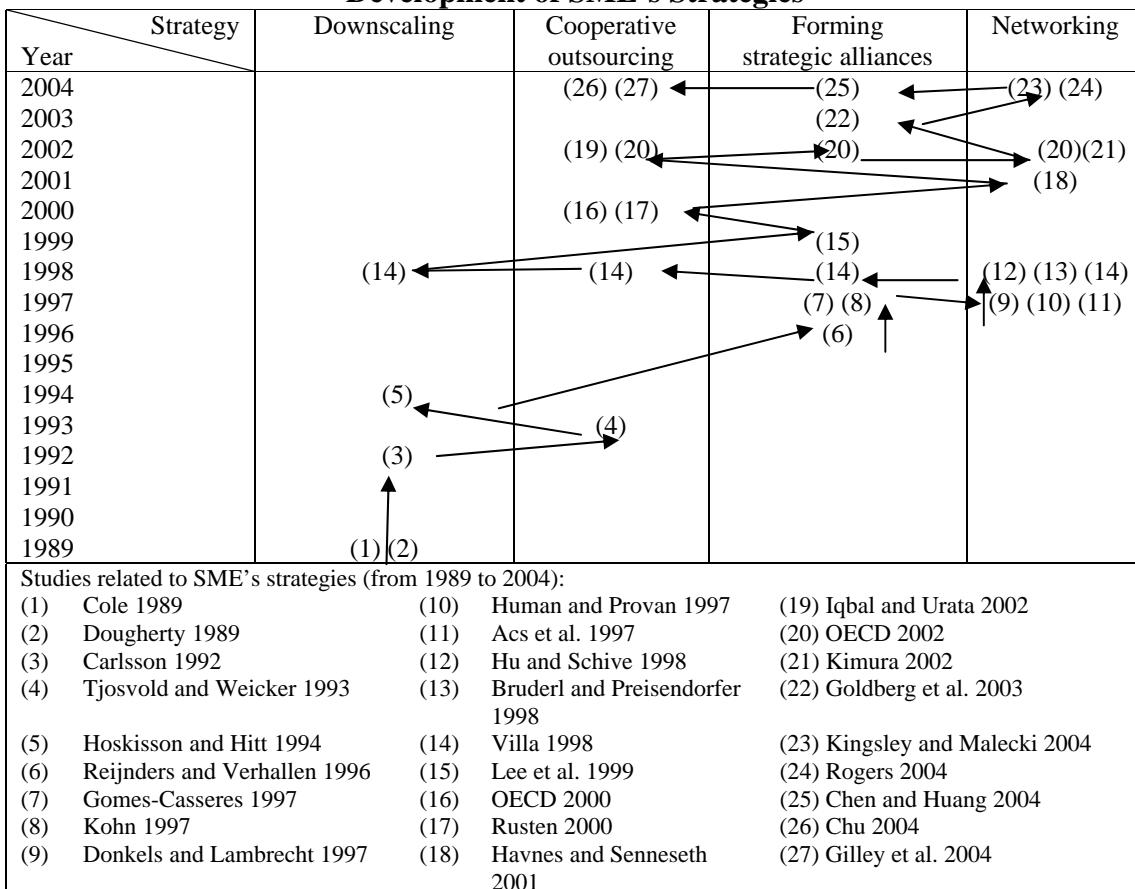
Another theory related to firm growth and performance is configuration theory (Walker and Ruekert 1987). Configuration theory is a marketing theory that focuses on the implementation of strategy in order to achieve superior performance; managers should organize marketing activities in different ways depending on their business strategy (Vorhies and Morgan 2003, Slater and Olson 2000, Walker and Ruekert 1987). Configuration theory posits that for each set of strategic characteristics, there exists an ideal set of organization characteristics that yields superior performance (Van de Ven and Drazin 1985). These configurations are ideal because they represent complex “gestalts” of multiple, independent, and mutually reinforcing organization characteristics that enable businesses to achieve their strategic goals (Miller 1997). Ideal profiles are defined as configurations of organizational characteristics that fit with the implementation requirements of a particular strategy and thus produce high performance. In the following sections, the strategies that lead to the higher performance of SME are reviewed.

### ***3.2.4 Studies Related to SME's Strategies***

This section focuses on various strategic options taken by SMEs in a dynamic business environment. A search for “small firm”, “SME” and “strategy” in the area of the marketing and management on several electronic databases such as Ingenta, ProQuest, EBSCO and Emerald showed that strategies such as downscaling, cooperative outsourcing, strategic alliances and network organisation have been emphasised in the literature. The details of each strategy are discussed next and are summarized in the list of studies in Figure 3.2.

*Downscaling.* Because of the limited resources of SMEs, downscaling has become one of the most prevalent business trends in the past two decades (Villa 1998). Downscaling refers to the transformation that accompanies the reduction in size of a firm, such as the redefinition of its scope, and the development of new transitive relationships with suppliers (Villa 1998). Furthermore, this is a change in the relative costs and benefits of using internal versus external sources for various goods and services (Reynolds 1997). Through downscaling, SMEs can take advantage of a formalised, hierarchical structure to reduce transaction costs, technical costs and risks by engaging in contractual arrangements with subcontractors and suppliers. Therefore, SMEs can enjoy greater specialisation and internal flexibility, allow management and production to become more focused in areas of greater priority, target market niches more competitively, increase productivity and develop continuous streams of innovation.

**Figure 3.2**  
**Development of SME's Strategies**



Source: Developed for this thesis.

*Cooperative outsourcing.* Downscaling can be empowered by the appropriate adoption of an outsourcing strategy (Villa 1998). Outsourcing production allows a firm to reduce its scope, cut costs or to specialise in the most advantageous facets of its operations. Production outsourcing has generally been divided into the competitive mode and the cooperative mode. The competitive mode, relying on hierarchical arrangements, minimal cost objectives and rigid or preordained performance expectations, prevails among firms in some traditional industries. The cooperative mode relies on tacit agreements about performance, trust and reciprocal adjustments and improvements. SMEs that engage in cooperative outsourcing tend

to adjust more to other firms as contingencies, changes in specification, or fluctuations in demand arise. Therefore, such reciprocity and mutual familiarity can add value to SMEs.

Cooperative outsourcing allows resources to be redirected to bolster R&D or other vital areas of the firm. This allows a firm to avoid costly investments in just-in-time production systems, and enables high quality and specialized operations to remain independent and external. Moreover, keeping such functions external can be vital for a SMEs that engage in highly competitive market niches (Villa 1998).

*Forming strategic alliances.* The adoption of these outsourcing strategies can be empowered by buyer-supplier relationships. A strategic alliance is one kind of relationship that has been emphasized in the literature in recent years (Figure 3.1). Strategic alliances are cooperative arrangements between independent firms based on business contracts to enhance the competitive strategies of the participating enterprises. The allied firms share mutually beneficial resources such as technology and skills. Alliances can be worked cooperatively for joint research and development, manufacturing, marketing, the sourcing of inputs and/or distribution (OECD 2002). This has been seen as a basic strategy that SMEs can adopt to overcome problems related to their small size (Acs et al. 1997; Bruderl and Preisendorfer 1998; Gomes-Casseres 1997; Kohn 1997; Lee et al. 1999; OECD 2000; Prasad 1999; Pratten 1991; Reynolds 1997; Villa 1998). By linking up with a resourceful trading partners who posses relevant resources such as technical skills and knowledge, market contracts, continuous innovations and financing, SMEs can share the risks with their allied members and gain economies of scale.

*Networking.* Networking is seen as a strategy that can improve the competitiveness and performance of SMEs (Karlsson and Dahlberg 2003; Kingsley and Malecki 2004; Rogers 2004). Network structures involve multiple firm alliances (Villa 1998) and networking refers to any formal and informal links between allied enterprises, including subcontracting relationships, that facilitate the economic specialization of firms and their access to information.

A formal network is one in which the participating organizations have explicitly agreed to a shared objective requires some level of coordination of actions and resources. An informal network is not bound by any explicit agreement that links all of the participants but is bound entirely by mutually reinforcing self-interest (Kingsley and Malecki 2004). The concept of networking involves social activities and interactions. The organization and coordination of resources among allied members require this skill (Bruderl and Preisendorfer 1998). Indeed, social relations and social contacts are seen as an important channel for gaining access to information on market conditions and opportunities. Furthermore, networking gives a firm access to potential customers and suppliers. Finding enough customers and quality suppliers determines the success of a business. Networking may open up to the firm the possibility of broadening its resources and financial basis through the building of formal and informal networking relationships with its trading partners.

In brief, the strategies of downscaling, cooperative outsourcing, forming strategic alliances and networking are interrelated. Downscaling allows SMEs to focus on areas of greater priority; thus, they may have more resources for their core businesses. In addition, downscaling can be enhanced by the appropriate adoption of an outsourcing strategy and buyer-supplier relationships. A cooperative outsourcing strategy can enlarge a SME's limited

resources, thus allowing it to enjoy economies of scale. Buyer-supplier relationships such as strategic alliances and networking allow SMEs to share risks and resources with external members; the disadvantages of being an SME can therefore be offset. Indeed, the adoption of a cooperative sourcing strategy and a closer buyer-supplier relationship are important for the success of SMEs. Studies on these issues are discussed in the next section.

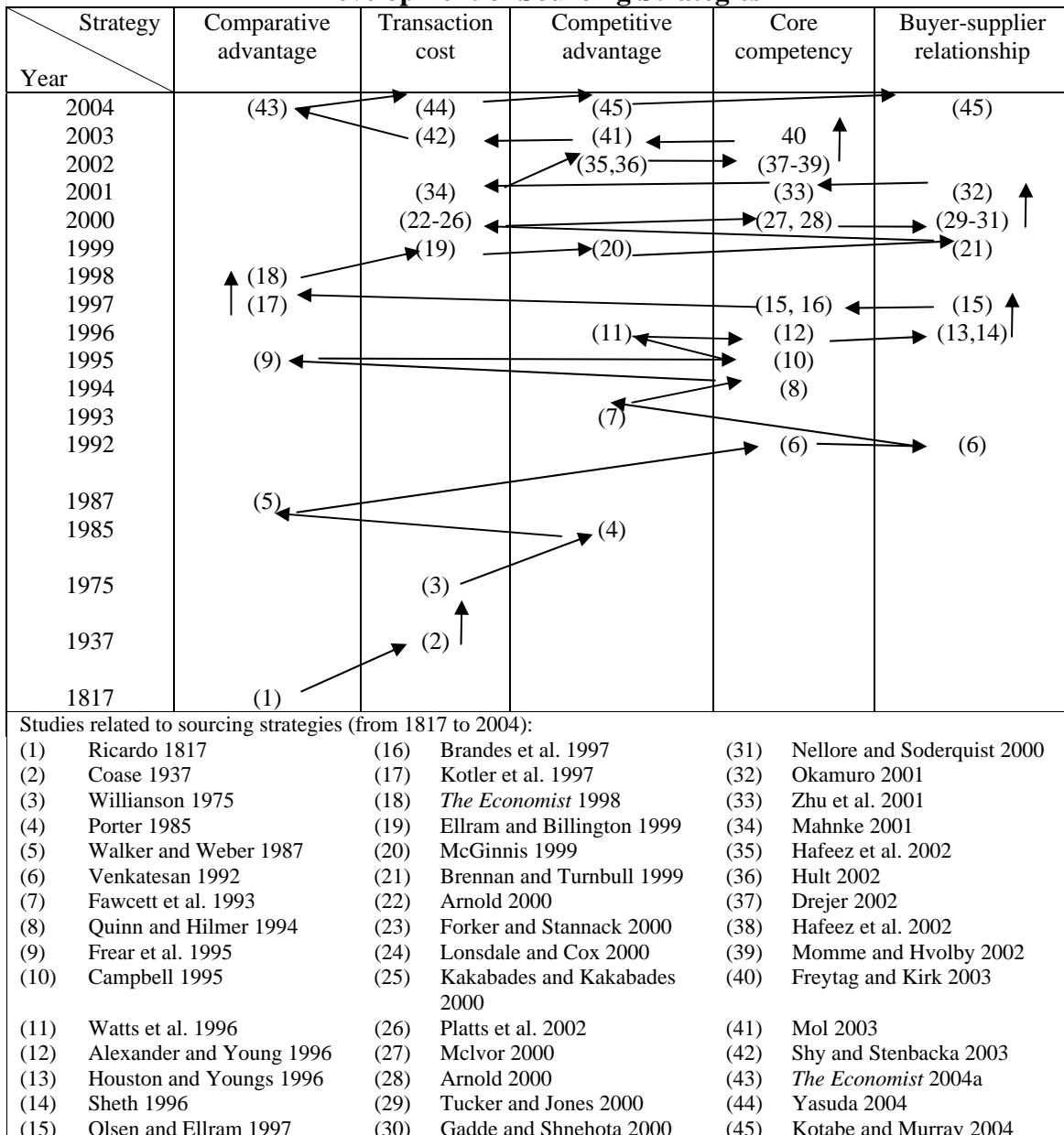
### **3.3 Sourcing Strategy and Buyer-Supplier Relationship**

‘Sourcing’ refers to the philosophy of selecting vendors in a manner that makes them an integral part of the buying firm for a particular component or part of a product (Zenz 1994). The sourcing decision should be incorporated into the operating strategies of buying firms to support or even improve their performance. This section first examines basic theories on production sourcing practices and buyer-supplier relationships, and then reviews the types of buyer-supplier relationships and sourcing strategies in the market.

#### ***3.3.1 Theories of Production Sourcing and Buyer-Supplier Relationship***

The literature on sourcing practices is concerned with achieving comparative advantages and competitive advantages, making insource-outsource decisions in terms of total transaction costs and core competency, and adopting appropriate buyer-supplier relationships. Figure 3.3 illustrates the studies that are related to sourcing strategies and buyer-supplier relationships. Studies on international sourcing practices date back to the eighteenth-century in England (Kakabades and Kakabades 2000) and have been continuously developed and elaborated upon by a number of authors. However, the development of buyer-supplier relationships has only been emphasised since the 1990s. Details of each theory on sourcing practices and buyer-supplier relationships are discussed as follows.

**Figure 3.3**  
**Development of Sourcing Strategies**



Source: Developed for this thesis.

*Theory of comparative advantage.* The theory of comparative advantage is an extension of Adam Smith's absolute advantage (Adam 1776). Smith proposed that a country should specialise in producing goods over which it has an absolute advantage and export them to other countries, while at the same time import goods for which it has an absolute

disadvantage. David Ricardo (1817) further elaborated Smith's absolute advantage by introducing theory of comparative advantage. Based on this theory, a nation is said to have a comparative advantage in producing a certain type of goods when it can produce those goods at a lower cost than other countries. Ricardo proposed that a nation can gain by specializing in and exporting goods concerning for which it has a comparative advantage.

Comparative advantage applied to the practice of sourcing production offshore is referred to as a location-specific advantage (Frear et al. 1995) which affects the strategic decision on where to source and market. It is based on the factor of production costs in one country being lower than that in others. However, other cost factors may also affect the comparative advantages of international sourcing. First, the cost of transportation can raise strong barriers between nations. Second, factor costs of wages, materials, and/or capital charges differ from one country to another. These macroeconomic factors vary considerably among countries, which may increase their risks in engaging in international sourcing. The next theory fills this gap by focusing on the total transaction cost of firm when making decisions on sourcing.

*Theory of transaction cost economics.* In the context of production sourcing strategies, much of the focus of previous studies has been on transactional economies as shown in Figure 3.3. Ronald Coase (1937) first demonstrated that under certain conditions it is more efficient for a firm to create and use an internal resource, rather than incur the prohibitively high transaction costs of an outside market. Subsequently, this formed the basis for the development of the transaction cost analysis (TCA) framework that has dominated the literature on sourcing decisions (Williamson 1975).

TCA is an approach that explicitly considers the implications of an organization's choice to perform a transaction or an activity internally (insourcing) or in the market (outsourcing). According to Williamson (1975), the decision on whether or not to outsource, and the extent to which a firm should outsource, depends on the transaction costs associated with outsourcing versus internalization. The level of transaction costs depends upon factors such as the frequency of the transactions, the level of transaction-specific investments, and external and internal uncertainties. In making sourcing decisions, firms should consider these factors.

In TCA, under the condition of competitive market behaviour, tasks should be externally organized because internal organization cannot improve on the efficiency of the market. On the contrary, tasks should be organized internally when a task requires highly specialized or "idiosyncratic" assets, investment, or knowledge that are so task-specific that they cannot be transferred to other organizations. However, the studies of both Coase (1937) and Williamson (1975) only focused on the making of the decision to insource or outsource; they do not mention what kind of relationship should exist between the buyer and the supplier. Furthermore, they tell little about how the sourcing decision affects performance and make no predictions about the nature and size of the firms involved.

*Competitive advantage.* Portor's (1985) looks at external factors to determine a firm's strategy based on the assessment of the five forces model in order to sustain firms' competitive advantage and improve performance. The five forces are: the threat of new entrants, the bargaining power of the buyers, the threat of substitute products or services, the bargaining power of the suppliers, and rivalry among existing competitors. Interestingly, at least three of these five forces involve suppliers of a firm and/or a firm's sourcing practices.

The bargaining power of suppliers and buyers is the most obvious force related to the issue of sourcing issue (Mol 2003). Firms may find ways to acquire more bargaining power vis-à-vis suppliers. The threat of new entrants consists partly of new start-ups or diversification by other firms, but another way to enter a market is downstream investment by suppliers. That is, suppliers that are not well managed by their customers can become a firm's competitors. The five forces model proposes ways of sustaining the competitive advantages of firms. In the context of sourcing, it raises the issue that managing supplier relations is a strategically important activity for firms.

*Core competency.* The question of “make or buy”, or the decision to “insource or outsource”, has been further elaborated upon by Venkatesan (1992). His model concerned with the identification of core competencies when making the sourcing decision. There are four main concepts on core competency (Alexander and Young 1996), including activities that are critical to business performance, that are traditionally performed internally with long-standing precedents, that create current or potential competitive advantages, and that drive the future growth, innovation, or rejuvenation of the enterprise. Venkatesan (1992) argued that the core product should be produced internally without any involvement by the supplier. In the case of non-core products, help from suppliers outside of the company should be sought, because such products are less critical. However, Venkatesan’s model does not specify the types of relationships that can be used when engaging a supplier of non-core products.

*Buyer-supplier relationship.* By extending the study of Venkatesan (1992), Quinn and Hilmer (1994) linked parameters that form both advantages and disadvantages in collaborations, and

developed two dimensions for classifying different activities that a firm deals with, namely the potential for a competitive edge and the degree of strategic vulnerability. Different activities require different types of relationships with suppliers.

Quinn and Hilmer's model classifies buyer-supplier relationships into three groups. It suggested that activities with a high potential to give a firm a competitive edge and a high degree of strategic vulnerability should be insourced. Moderate strategic vulnerability and a moderate potential to gain a competitive edge represent activities that call for a range of relationships such short-term contracts, call options, long-term contracts, retainer, joint development, partial ownership, or full ownership in relation to the suppliers. Lastly, activities that lead to a low level of vulnerability and to a low potential for a firm to develop a competitive edge call for the firm to maintain an arm's-length relationship with the supplier.

However, the studies of both Venkatesan (1992) and Quinn and Hilmer (1994) only focused on the making of the decision to whether insource or outsource. They neglected the other dimensions of sourcing, such as the number of suppliers used or whether to produce locally or outside the territory of a country.

Following the study of Quinn and Hilmer, some other buyer-supplier relationships have been suggested, such as partnership (Gadde and Shnehta 2000; Houston and Youngs 1996; Tucker and Jones 2000), strategic alliance (Boddy et al. 2000; Gomes-Casseres 1996; Hoyt and Huq 2000; Parkhe 2001; Perks and Easton 2000; Sivadas and Dwyer 2000; Yasuda 2004), and networking (Chung et al. 2004; Momme and Hvolby 2002; Mouzas and Araujo 2000). Indeed, as mentioned in section 3.2.4 (studies related to an SME's strategies), strategic alliances and network organizations are regarded as powerful strategies for SMEs. In their

studies, Frederick and Webster (1992) proposed a range of buyer-supplier relationships that cover some important strategies for SMEs. The definition of each of buyer-supplier relationship and sourcing strategy is reviewed in the following 2 sub-sections.

### ***3.3.2 Types of Buyer-Supplier Relationships***

The buyer-supplier relationship has been recognized as a type of strategy and a powerful tactic for strengthening a firm's sourcing activities (Krotseng 1997; Monczka 2002; Sheth 1996). The buyer-supplier relationship refers to the interaction between buyers and suppliers that involved in different kinds of marketing exchange activities such as discrete transactional exchanges, repeated transactions, long-term relationships, buyer-seller partnerships, strategic alliances and network organizations (Frederick and Webster 1992). Figure 3.4 shows the range of buyer-supplier relationships under a continuum form.

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**Figure 3.4**  
**The Range of Relationships**

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Source: Frederick and Webster (1992)

The first relationship on this continuum is a pure transaction. Pure transaction refers to one-time exchange of value between two parties with no prior or subsequent interaction. Repeated transaction is one step away from pure transaction that a pure transaction is repeated. In turn, long-term relationship involves a closer buyer-supplier relationship; yet, it is still adversarial and depends heavily on market control. Then, it comes to a buyer-seller partnership, in which each partner approaches total dependence on the other in a particular

area of activity, and mutual trust replaces the adversarial assumptions. Next is strategic alliance, which is defined by the formation of new entity with the features of intending to move each of the partners toward the achievement of a long-term strategic common goal. Finally, network organization is a corporate structure that results from multiple strategic alliances. It usually combined with other forms of organization including divisions, subsidiaries, and value-added resellers. This structure is the most formal and closest structure that a large number of partnerships and alliances are evolving into a network organization (Fontenot and Wilson 1997; Frederick and Webster 1992).

### **3.3.3 Types of Sourcing Strategies**

The characteristics of production sourcing strategies are based on the decision of insource or outsource, location of production sites and number of suppliers. The literature identifies seven sourcing strategies in light of these three dimensions – insourcing, outsourcing, local sourcing, offshore sourcing, global sourcing, multiple sourcing and single sourcing (Table 3.1).

**TABLE 3.1**  
**Types of Sourcing Strategies**

Classification	Sourcing strategies	Studies
Insourcing-outsource decision	Insourcing Outsourcing	(Dekkers 2000) (Park and Krishnan 2001); (Fill and Visser 2000); (Nellore and Soderquist 2000); (Linder et al. 2002); (Drejer 2002); (Fan 2000); (McIvor 2000); (Tayles and Drury 2001); (Laios 1999); (Jennings 2002)
Location of production sites	Local sourcing Offshore sourcing Global sourcing	(Nellore and Soderquist 2000); (Rajagopal and Bernard 1994); (Frear et al. 1995); (Sheth 1996); (Elmutti and Kathawala 2000); (Zeng 2000); (Lowson 2001a; Lowson 2001b)
Number of suppliers	Single sourcing Multiple sourcing	(Zeng 2000); (Ramsay and Wilson 1990)

Source: Developed for this thesis.

The evolving literature on sourcing strategies has concentrated on the “make or buy”, or so-called “insource-outsource” decision in relation to the behaviour of enterprises.

Insourcing simply means that the enterprise performs the function internally (King 2001). Outsourcing refers to a strategic perspective on external resources and it is an abbreviation of “outside resource using” (Arnold 2000). Outside means creating value by transferring the responsibility of a specific business function from an employee group to a non-employee group (Zhu et al. 2001).

Local sourcing deals with local suppliers; offshore sourcing occurs when some activities involved in the making of a product are performed abroad (Arndt 1997); and global sourcing is defined as “the integration and coordination of procurement requirements across worldwide business units” (Rajagopal and Bernard 1994). Globalisation means having establishments or close affiliates in at least four different nations and in two major international regions, e.g. Europe, North America, and/or Asia (OECD 1997).

Single sourcing involves the idea of reducing the number of suppliers with which a firm does business, and hence the buyers source from a sole source (Krotseng 1997). Multiple sourcing refers to a company that has business relationships with a number of suppliers. Each supplier responds to the demands and specifications of a particular quotation from the buying company (Zeng 2000).

### **3.4 Sourcing Motivations**

There are many reasons why a firm may choose a specific kind of sourcing strategy. Indeed, theories show that motivations of a firm directly influence a firm's attitude in making decisions and adopting production sourcing strategies.

In the previous sections, the Firm-theories related to SMEs and different types of sourcing strategy and buyer-supplier relationship from literature are mentioned. However, do all these theories and studies really related to represent the real situation of small firms? Economists tend to see firms as players in a multi actor economic game, and their interest is in the game and its outcomes, rather than in the particular play or performance of individual firms (Nelson 1991, Nelson and Winter 1982).

In fact, the perspective of management in a firm is very different from that in the economics theories. Manager of a firm is concerning with the behaviour and performance of individual firms in its own right. Different firms have different conditions to face and possess certain unique attributes. Therefore, there is a significant difference among firms in an industry in behaviour and performance, and proposed that these differences largely reflect different choices made by a firm. These differences are the result of different strategies that are used to guide decision making at various levels in firms. To have a better understand of the sourcing decision made by individual firms, it is a need to know their reasons for sourcing; this is mentioned in the following sections.

### ***3.4.1 Theories of Motivation***

The theory of planned behaviour (Ajzen 1991) explains how intention influences behaviour and decision making. This theory designed to predict and explain human behaviour in specific contexts. This theory suggests that the intentions to perform can be predicted with a high degree of accuracy from attitudes and behaviour, subjective norms, and perceived behavioural control; and that these intentions, together with perceptions of behavioural control, account for considerable variance in actual behaviour. However, this theory of planned behaviour only focuses on predicting behaviour and decisions from intention, while neglecting the outcome of the performance.

In the goal setting theory (Locke 1991; Locke and Latham 1990), it specifies the factors affecting goals and intentions, and how these relate to action and performance. According to this theory, the motivation hub consists of goals and intentions. Goals and intentions have a direct relationship to an action. They are hypothesized to reflect a person's values as they are seen to pertain to a situation. For SME, entrepreneur is an individual human being that makes decision for firm; therefore the person's value of entrepreneur has direct impact on firm's goal and intention, and decision making. Hence, motivational factors for production sourcing are also related to goals and intentions. These reflect the intentions that influence the sourcing decision. Studies related to motivations for sourcing are discussed and reviewed in the following sub-section.

### ***3.4.2 Studies Related to Sourcing Motivation***

In the research studies about the motivations behind sourcing, there are five commonly cited reasons for sourcing: (1) to reduce costs; (2) to improve quality, service and delivery; (3) to

improve organizational focus/core competencies; (4) to increase flexibility; and (5) to establish long-term relationships (Table 3.2). All of these motivational factors will be different in different situations, such as changes in firm size (Fan 2000), industrial sector (Kakabades and Kakabades 2000; Rajagopal and Bernard 1994) and location/country of origin (Elmuti and Kathawala 2000; Kakabades and Kakabades 2000; Kakabadse and Kakabades 2002; Lowson 2001a; Lowson 2001b; Rajagopal and Bernard 1994). The American and European companies tend to be motivated by cost advantages, whereas Japanese companies are largely driven by the desire to achieve better quality (Kakabadse and Kakabades 2002; Rajagopal and Bernard 1994).

**TABLE 3.2**  
**Research Related to the Motivations of Sourcing**

Author	Sourcing strategies	Industry studied	Country studied	Motivations	
Lowson (2001)	Local & offshore sourcing	Retail	UK & North America	Domestic sourcing objective:	Offshore sourcing objective:
				North American retailers: 1) Quality 2) Response time 3) Design UK retailers: 1) Response time 2) Flexibility 3) Design	North American retailers: 1) Low cost 2) Quality 3) Innovation UK retailers: 1) Low cost 2) Quality 3) Design
Kakabadse & Kakabadse (2002)	Outsourcing	IT	US & Europe	US: 1) Aim to achieve best practice 2) Cost control 3) Focus on core competencies	Europe: 1) Cost control 2) Aim to achieve best practice 3) Improve service quality
Rajagopal & Bernard (1994)	Global sourcing	Electronic, Chemical, Automotive, Food, & Others	US, Britain, Europe & Japan	Britain, Europe & US: 1) Low price 2) Gain competitive advantage 3) On-time delivery	Japan: 1) Better quality 2) Establish long-term relationship
Elmuti & Kathawala (2000)	Global sourcing	Oil, Banking, IT, Finance, Health, & Manufacturing	US, Europe & Middle East	1) Reduce costs 2) Improve quality 3) Increase exposure to worldwide technology 4) Delivery and reliability	
Fan (2000)	Outsourcing	Service, Electronics, Finance, & Retailer	UK	1) Reduce cost 2) Free up international resources 3) Improve levels of services	

Source: Developed for this thesis.

### **3.5 Performance Satisfaction**

The goal setting theory explains how motivations influence action and performance. Indeed, the performance of a firm can be measured by the growth in employment (Storey 1994), the average growth rate of sales and the operating profit, total net assets, operating income, added value, and equity (Rodriguez et al. 2003). However, measuring these elements alone may not give a full picture of the various aspects of the performance of a firm. Where the performance is concerned about sourcing, other elements should also be considered, such as on-time delivery and a firm's relationships with its customers. Nevertheless, some elements are quite difficult to measure quantitatively, such as how satisfied customers are with a firm or whether a firm has improved its relationships with its customers. Therefore, the review on literature of sourcing performance in this research is based on their perceived level of satisfaction.

#### ***3.5.1 Theories of Performance Satisfaction***

Expectancy theory (Vroom 1964) starts with the idea that people tend to prefer certain goals or outcomes. They thus anticipate experiencing a feeling of satisfaction should such a preferred outcome be achieved. Expectancy theory argues that satisfaction can be achieved when people act to maximize their expected pleasure. While the emphasis only on maximization is unfortunate, it is undeniable that people often use foresight to choose among courses of action. Goal setting theory (Locke 1991) extends Vroom's study by injecting an intermediate step; that is, goals, intentions and actions are considered to be the most direct and immediate determinants of performance.

### ***3.5.2 Studies Related to Performance Satisfaction***

There are three studies that evaluate the performance of sourcing. They are the studies of Elmuti and Kathawala (2000), Kakabadse and Kakabadse (2002), and Rajagopal and Bernard (1994). Two of these studies include indicators for measuring the performance of sourcing. Rajagopal and Bernard (1994) focused on the benefits of international sourcing, such as lower prices, increased competition, better quality, an increased number of sources, and access to worldwide technology. Elmuti and Kathawala (2000) measured the effectiveness of sourcing by evaluating cost savings, productivity, cycle time, customer services, market share, and the quality of the products.

The third study by Kakabadse and Kakabadse (2002) though did not indicate the measure of performance; it reported that U.S. managers have experienced marginally greater satisfaction with outsourcing in comparison with those from the European companies (Kakabadse and Kakabadse 2002). Elmuti and Kathawala (2000) attempt similar study as Kakabadse and Kakabadse (2002), it was reported that about 31% of organizations had failed their outsourcing programmes. The majority opinion, as reflected in the academic literature and popular press, is to increasingly recognize that the disadvantages of outsourcing outweigh the advantages (Forst 1999). The area of complaint is that either the wrong sourcing strategies have been used, or that the buyer-supplier relationships have been ill-defined (Kakabadse and Kakabades 2002). Exploring the satisfaction of firms with outsourcing provides an opportunity for other firms to learn from their experience.

### **3.6 Chapter Summary**

Hong Kong has a large number of small and medium-sized enterprises (SMEs). These enterprises enjoy the advantages of greater flexibility and a higher level of efficiency, and do not have to be held back by a complicated organizational structure. However, SMEs are severely constrained due to their lack of funds and human resources. Compared with large enterprises (LEs), SMEs are less able to undertake research and development, have fewer opportunities to benefit from economies of scale, and suffer from insufficient production capacity and inadequate resources to support selling and marketing. Indeed, some theorists have already made major contributions to the understanding of small firms. However, the model on the sourcing practices of SMEs is still inadequate. None of the studies have focused on the relationship between sourcing motivations, sourcing strategies, buyer-supplier relationships, and satisfaction with the performance of the SMEs in Hong Kong. Also because of this, what are the most required are the motivational factors and the performance indicators for sourcing production. In accordance, a multiple-case study used to explore the motivational factors and performance indicators for sourcing production by small and medium-sized clothing firms in Hong Kong is provided in the next chapter.

## **CHAPTER 4** **MULTIPLE-CASE STUDY**

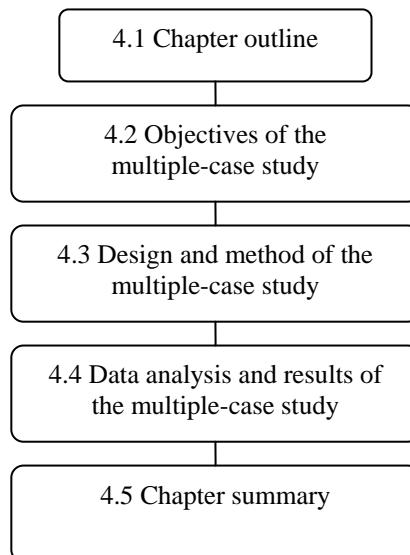
### **4.1 Chapter Outline**

In the previous literature review chapter, the basic theories of firm, sourcing strategies and buyer-supplier relationships were explored. The objective of this chapter is to discover the variables of motivational factors (MFs) and critical performance indicators (CPIs) of small and medium-sized clothing firms in their pursuit of production sourcing in Hong Kong. The organization of this chapter is illustrated in Figure 4.1. The objectives and design and method of this study are reviewed in sections 4.2 and 4.3. Then, data analysis and results are discussed in section 4.4. Finally, a chapter summary is provided in section 4.5.

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**FIGURE 4.1**  
**Outline of Chapter 4**

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Source: Developed for this thesis

## **4.2 Objectives of the Multiple-Case Study**

An exploratory study is characterized by a high degree of flexibility, and it tends to rely on secondary data, small-scale surveys or case analysis (Tull and Hawkins 1993). Since little research has been done to focus on the MFs and CPIs for the small and medium-sized clothing firms in Hong Kong, a multiple-case study was conducted. Multiple-case methodology is an exploratory device for using more than a single case in the same study (Yin 1994). The purpose of this multiple-case study is to explore the production sourcing practices of small medium-sized clothing firms in Hong Kong, to reveal the MFs and CPIs for production sourcing, and to identify the key variables for the establishment of research model and hypotheses. In particular, this exploratory study focuses on the small and medium-sized clothing firms in Hong Kong regarding their production sourcing. The specific objectives of this multiple-case study were:

1. To identify the perceived motivational factors (MFs) for production sourcing, and
2. To investigate the critical performance indicators (CPIs) for production sourcing.

## **4.3 Design and Method of the Multiple-Case Study**

The number of cases to be examined in an exploratory study should be a minimum of two to four and a maximum of ten to fifteen (Perry 1998). Six to ten cases is said to be able to provide compelling support for the initial set of propositions in a multiple-case study (Yin 1994). Therefore, five manufacturing and five trading firms in Hong Kong were selected by adopting a convenient sampling approach. A purposive sample is one in which the only

criterion for selecting the sampling units is the convenience of the sampler (Tull and Hawkins 1993). Nonetheless, the selected companies of this exploratory study were required to fulfill the criteria of a SME as mentioned before (section 1.6).

This multiple-case study was conducted through interviews with ten small and medium-sized clothing firms in Hong Kong. Interviews were semi-structured conversations with individuals drawn from the target companies (Malhotra 2002). Substantial probing was done to surface underlying motives, beliefs and attitudes during the interviews. Through these interviews, the experience of the firms could be shared, an insight about the industry could be gained (Malhotra 2002; Tull and Hawkins 1993), and most importantly the MFs and CPIs could therefore be explored.

#### **4.4 Data Analysis and Results of the Multiple-Case Study**

Case study interviews were analyzed by content analysis (Perry 1998). The data obtained from interviews were coded into groups of words, from the transcripts into categories. These codes were retrieved and used as organizing devices that allowed the analyst to spot quickly, pull out, and cluster all the segments relating to a particular question, hypothesis, concept, or theme.

##### ***4.4.1 Background of the Responding Firms***

A total of ten representatives from ten small and medium-sized trading and manufacturing firms were interviewed. All the interviewees were practitioners in the clothing industry: they were CEOs, directors, merchandisers or designers.

**Table 4.1**  
**Background of Companies in the Exploratory Study**

Firm	Characteristics of SMEs				No. of plants						Sourcing strategy
					Local sourcing			Offshore sourcing			
	Sector	Firm size (employee)	Market (%)	Experience (year)	F	J	C	F	J	C	
M1	M	25	50W,30CA, 20HK	15	1	/	/	1	/	/	Local+offshore, Single, Insourcing
M2	M	40	100W	18	1	/	/	1	/	/	Local+offshore, Single, Insourcing
M3	M	93	100HK	9	1	/	/	/	/	3	Local+offshore Multiple, In+Outsourcing
M4	M	60	99W, 1CA	4	1	/	/	1	/	/	Local+offshore, Single, Insourcing
M5	M	28	30W, 40CA, 30HK	15	/	/	3	1	/	/	Local+offshore, Multiple, In+Outsourcing
T1	T	23	95W, 5CA	10	/	/	/	2	/	1	Offshore, Multiple, In+Outsourcing
T2	T	4	100W	11	/	/	/	/	1	10	Offshore, Multiple, In+Outsourcing
T3	T	18	100W	8	/	/	/	1	/	2	Offshore Multiple, In+Outsourcing
T4	T	3	100W	13	/	/	/	/	/	4	Offshore Multiple, Outsourcing
T5	T	16	95W, 4CA, 1HK	8	/	/	/	/	2	3	Offshore Multiple, In+Outsourcing

REMARKS: (1) Sector: M=Manufacturing firm, T=Trading firm; (2)Market: W=Western, CA=China and Asia, HK=Hong Kong; (3) Ownership: F=Fully owned, J=Joint venture, C=Contract

Source: Finding of this thesis.

The background of these firms was also suitably diverse, as shown in Table 4.1. All the companies were locally owned, with sizes ranging from 3 to 93 employees. Six of the companies have been established for more than 10 years, while the other four have been established for less than 10 years. Four companies have focused entirely on western markets, such as the US, the UK or Europe. One company has fully concentrated on the local market, while the other five companies have developed their markets both in Western countries and in China, Asia or Hong Kong. None of the companies adopted solely local sourcing. Five companies adopted offshore sourcing, while another five preferred a combination of both local and offshore strategies. The responding companies with offshore production either have their own factories or non-owned affiliates in Mainland China. Hence, a global sourcing strategy was not common to this group of companies. Three companies undertook single sourcing and seven selected multiple sourcing. Three companies adopted

insourcing, one company used outsourcing, and six companies preferred both in+outsourcing strategies. According to the characteristics of the responding firms, they were the suitable responding firms for this multiple-case study.

#### ***4.4.2 Motivations for Production Sourcing***

During the in-depth interviews, the interviewees were asked to list the motivational factors for production sourcing. That is, either sourcing production outside their firms and/or outside their countries. Fifteen MFs for production sourcing were therefore identified (Table 4.2).

The most frequently mentioned MFs for production sourcing, by three manufacturing and two trading firms, was the cost advantage of the host country (MF3). The second most frequently mentioned, by three manufacturing firms, was the availability of labour in the host country (MF5). One MF, the absence of a suitable domestic garment production provider (MF2), was mentioned by two manufacturing firms. Four MFs, exploiting a potential market in the host country (MF10), fulfilling clients' requests or meeting their preferences (MF13), focusing on the core competencies (MF14) and competitive advantages of the company (MF15), were each mentioned by two trading firms. Eight other MFs for production sourcing were highlighted by one firm each. Of which, six factors including the decline of the domestic garment production industry (MF1), the availability of materials in the host country (MF4), being attracted by host government policy (MF8), taking the geographical advantages of the host country (MF9), enhancing corporate strategy development (MF11) and improving immediate production performance (MF12) were mentioned by the manufacturing firms, while two factors of the availability of export quotas (MF6) and technologies (MF7) of the host countries were suggested by trading firms.

**Table 4.2**  
**Variables of Motivations for Production Sourcing**

<b>Motivational factors for production sourcing</b>		<b>No. of firms*</b>			<b>Related studies</b>
		<b>M</b>	<b>T</b>	<b>Total</b>	
MF1	Decline of the domestic garment production industry	1	0	1	-
MF2	Absence of suitable domestic garment production providers	2	0	2	-
MF3	Cost advantage of the host countries	3	2	5	Lowson (2001); Kakabadse et al. (2002); Rajagopal et al. (1994); Elmuti et al. (2000); Fan (2000)
MF4	Availability of materials in host countries	1	0	1	-
MF5	Availability of labour in the host countries	3	0	3	-
MF6	Availability of export quotas in the host country	0	1	1	-
MF7	Availability of technologies in the host country	0	1	1	Elmuti et al. (2000)
MF8	Attracted by host government policies	1	0	1	-
MF9	Geographical advantages of the host country	1	0	1	-
MF10	Exploit potential market in the host country	0	2	2	-
MF11	Corporate strategic development	1	0	1	-
MF12	Improvement of immediate production performance	1	0	1	Lowson (2001); Kakabadse et al. (2002); Rajagopal et al. (1994); Elmuti et al. (2000); Fan (2000)
MF13	Clients' requests or preferences	0	2	2	-
MF14	Focus on the core competencies of the company	0	2	2	Kakabadse et al. (2002)
MF15	Focus on the competitive advantage of the company	0	2	2	Rajagopal et al. (1994)

Remarks: (1) \* = no. of firms that regard the variable as most important; (2) M=Manufacturing firms; T=Trading firms

Source: Finding of this thesis

#### **4.4.3 Critical Performance Indicators (CPIs) for Production Sourcing**

The interviewees were also asked to list the indicators that are most critical outcome of production sourcing. As shown in Table 4.4, three manufacturing firms and one trading firm indicated that profitability (CPI7) and control of costs (CPI2) were the critical performance indicators for production sourcing. Two trading firms expressed the view that achieving better quality (CPI4) was a critical issue for them. Another two manufacturing firms considered that the criterion of increasing competitiveness (CPI3) was also important. Access to worldwide technology (CPI5) was proposed by one trading firm. One manufacturing firm suggested that factors such as on-time delivery (CPI1) and improved relationships with customers (CPI6) were also be considered when evaluating the level of

performance satisfaction for production sourcing. These indicators will be used at a later stage for measuring the level of satisfaction the firms felt with the performance of their production sourcing arrangements. Seven CPIs were therefore identified.

**Table 4.3**  
**Variables of Critical Performance Indicators for Production Sourcing**

Critical performance indicators for production sourcing		No. of firms*			Related studies
		M	T	Total	
CPI1	On-time delivery	1	0	1	Elmuti et al., 2000.
CPI2	Control of costs	3	1	4	Rajagopal et al., 1994; Elmuti et al, 2000.
CPI3	Increase in competitiveness	2	0	2	Elmuti et al., 2000.
CPI4	Better quality	0	2	2	/
CPI5	Access to worldwide technology	0	1	1	Rajagopal et al., 1994; Elmuti et al, 2000.
CPI6	Improved relationship with customers	1	0	1	Elmuti et al., 2000.
CPI7	Profitability	3	1	4	Elmuti et al., 2000.

Remarks: (1) \*=no. of firms that regard the variable as most important; (2) M=Manufacturing firms; T=Trading firms

Source: Finding of this thesis

#### 4.5 Chapter Summary

This multiple-case study provides an understanding of the MFs and CPIs of small and medium-sized clothing firms in pursuing production sourcing in Hong Kong. Eventually, fifteen MFs and seven CPIs for production sourcing were identified. Using the findings of this multiple-case study and the literature review in Chapter 3 as foundations, the relationships among the research variables are initially identified, and a conceptual model and ten hypotheses are developed in the next chapter.

## **CHAPTER 5** **DEVELOPMENT OF RESEARCH MODEL** **AND HYPOTHESES**

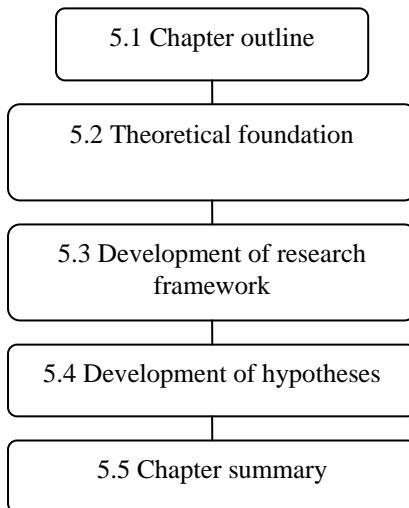
### **5.1 Chapter Outline**

Based on the concepts in the literature review and the picture of the Hong Kong clothing industry in Chapter 3, the objective of this chapter is to develop a conceptual model that explains production sourcing practices for small and medium-sized clothing firms in Hong Kong. The research model in this study was primarily developed from three theories: (1) Configuration theory; (2) the growth theory of small firms; and (3) goal setting theory. Based on these theories and the finding of the multiple-case study, a conceptual model and 10 hypotheses were obtained and developed. The details of this chapter are recorded and organized into five sections, as shown in Figure 5.1.

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**FIGURE 5.1**  
**Outline of Chapter 5**

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Source: Developed for this thesis.

## **5.2 Theoretic Foundation**

The constructs of the research model of this study are primarily based on the combination of the growth theory of small firms and goal setting theory with the reference of the configuration theory. Constructs are abstractions created to facilitate the understanding of theories. They may be applied or even defined on the basis of what has been observed. A theory is a generalization, applicable within stated boundaries, that specifies the relationships between factors (Dubin 1976). A theory is also a system of constructs and variables, with the constructs related to one another by propositions and the variables by a hypothesis (Miner 2002).

This study used the configuration theory-based approaches. Configuration theory posits that for each set of strategic characteristics that yields superior performance (Van de Ven and Drazin 1985). This theory is to denote the holistic relationship between multidimensional phenomena such as marketing organization and business strategy (Vorhies and Morgan 2003). To more precisely specify and assess such relationships, configuration theory – based studies draw on the well-developed literature regarding fit. In this literature, fit is recognized as a term that can be defined as how relationships between variables are conceptualized and tested (Powell 1992, Venkatraman and Camillus 1984). Therefore, management scholars have specified different conceptualizations and technical specifications of alternative definitions to fit and have developed guidelines for selecting the approaches that are most appropriate in different kinds of research questions (Venatraman 1989). This study is to explore the relationship between firm related characteristics, goal and intentions of firm, adopted strategies and performance. The concept of this study is further supported by the growth theory of small firms and enhanced by goal setting theory.

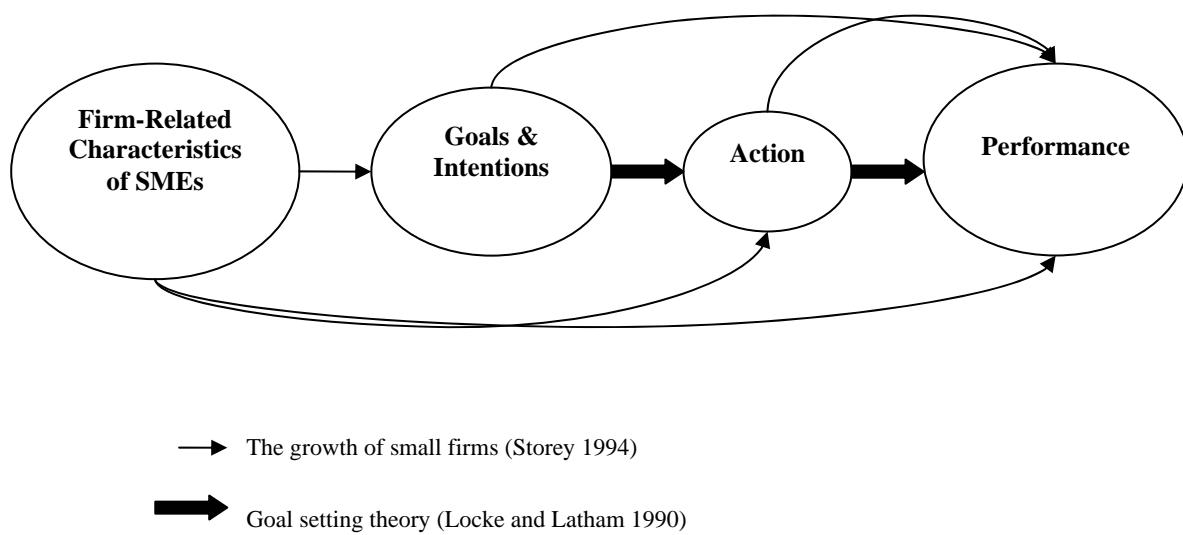
The links between the growth theory of small firms and goal setting theory are examined as a logical basis for the theoretical framework of this research (Figure 5.2). Both approaches have perspectives that are complementary for understanding the rationale behind the decisions made by small and medium-sized clothing firms in their sourcing of production.

The growth of small firms (Storey 1994) is influenced by firm-related characteristics, the background of entrepreneurs, and the strategic decisions taken by the firm once the business is running. Firm-related characteristics refer to such aspects as the size and age of the firm, location, and ownership. They are a critical determinant of a firm's choice of business strategies and motivation in making strategic decisions. Other studies have also shown that firm-related characteristics such as firm size motivated the growth of companies (Davidsson 2000; Davidsson 1989; Mascarenhas 1999). Large enterprises (LEs) have stronger growth expectations and adopt more aggressive business strategies such as international expansion (Mascarenhas 1999); whereas the main objective of small and medium enterprises (SMEs) is not to grow, but to survive, be profitable, and maintain their small-firm culture. Furthermore, the strategy chosen should result from a "fit" between the organization and its abilities (Porter 1991). The strategies adopted should be selected carefully, and the decision on strategy is influenced by judgements about what a firm is capable of accomplishing and by firm-related characteristics.

**FIGURE 5.2**

**Theoretic Foundation – A Combination of the Theory on the Growth of Small Firms and the Goal Setting Theory**

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Source: Developed for this thesis.

Based on the growth theory of small firms, motivation (goals and intentions) is one of the factors that influences the growth and performance of firms. Furthermore, several studies have given support to the view that the element of motivation varies, directs behaviour, and thus affects growth and performance of firms (Barkham 1992; Davidsson 1989; Johnson 1991; Storey et al. 1987).

The growth theory of small firms evaluates the growth and performance of a firm by considering the growth of employment and the aspirations for growth of small firms. Indeed, growth is related to the performance of a firm. However, measuring the growth of employment and the aspiration for growth alone may not give a full picture of the performance of a firm. Other elements related to performance should also be considered such as profitability, on-time delivery, and a firm's relationships with its customers. So this study

measures the performance of a firm based on the perceived satisfaction which directly reflect the firm's experiencing feeling of satisfaction regarding to an outcome of production sourcing.

Previously reviewed the growth of small firm theory, which points out that the motivation of an entrepreneur affected the performance and growth of firms directly. Entrepreneur is an individual human being that makes decision for firms. The goal setting theory (Locke and Latham 1990) is a way of understanding the behaviour of individual including entrepreneur. In fact, it is a theory to explain human behaviour in all its complexities with regard to the making of decisions and to predict how human beings respond to certain actions. According to this theory, as mentioned in section 3.4.1, the hub of motivation consists of goals and intentions. The theory assumes that the goals and intentions people have with regard to a task influence what they will do and how well they will perform that task. As humans are responsible for making the decisions for a firm, the application of goal setting theory may lead to a better understanding of the behaviour of firms. The following section uses both growth theory of small firms and goal setting theory to develop a conceptual model that explains the reasons why small and medium-sized clothing firms adopt certain production-sourcing practices.

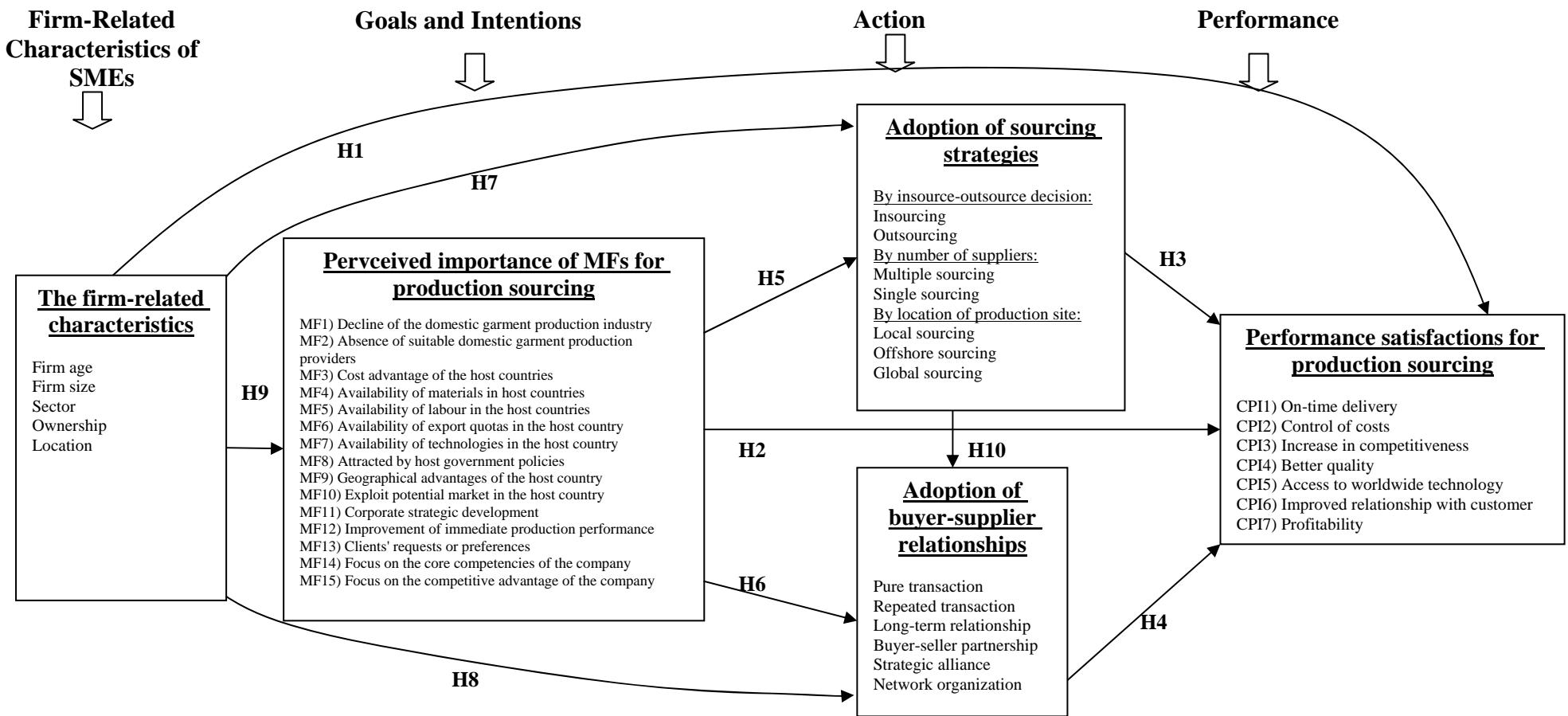
### **5.3 Development of Research Framework**

A more detailed research model that was developed from the logic of the above theoretical framework is further elaborated in Figure 5.3. This model illustrates the links among the firm-related characteristics of SMEs, goals and intentions (the perceived importance of motivational factors), action (the adoption of sourcing strategies and buyer-supplier relationships) and performance (satisfaction with the perceived performance of production sourcing).

This research model is a description of outcomes that are desired, the relevant variables, and the relationships of the variables to the outcomes (Tull and Hawkins 1993). Variables are observable, have multiple values, and derive from constructs. In contrast to abstract constructs, variables are concrete (Miner 2002). The variables of this study were obtained from the literature review in Chapter 3 and the multiple-case study in Chapter 4. The details of the model and the perspective variables are discussed next.

**FIGURE 5.3**  
**A Conceptual Model of Production Sourcing for Small and Medium-sized Clothing Firms**

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Source: Develop for this thesis.

### ***5.3.1 Firm-Related Characteristics of SMEs***

The firm-related characteristics of SMEs refer to the characteristics of the business itself (Storey 1994). Based on the growth of small firm by Storey (1994), the firm-related characteristics of SMEs include aspects of the business such as its sector, location, the size of the firm, ownership and the age of the firm.

In this study, firm age is measured by the number of years a firm has been in business. Sector is defined as the nature of the business, i.e., whether the firm is a manufacturer or trading agent. Location refers to the site of a firm's parent company. Ownership refers to the legal right or possession of a firm; i.e., whether a firm is fully-owned or is set up as a partnership. Firm size is measure by the number of employees. In this study, both firm sizes in Hong Kong and outside Hong Kong are calculated. The firm size in Hong Kong can help to identify whether a firm is an SME or not, while the firm size outside Hong Kong can assist to analysis the production and operational capacity of the SME.

### ***5.3.2 Goals and Intentions***

The hub of motivation consists of goals and intentions. Goals are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour, based on the study of Locke (1991). Intentions refer to the reason for doing something. Goals and intentions are assumed to capture the motivational factors that influence behaviour psychologically. Locke and Latham (1990, p.6) identified three types of goal-related concepts: (1) emphasis on behaviour or action; (2) emphasis on the end or aim of action; and (3) emphasis on the motivational element underlying goals. The first concept refers to the determination to take a certain action by acting appropriately or

performing acceptable behaviour. The second concept refers to the level of performance one is trying to attain in performing a task. The third refers to the concepts of value, motive, desire, wish and attitude that underlie an individual's choice of goal or decision to accept a goal.

Motivational factors (MFs) in this study involve these three types of goal-related concepts. In the exploratory study, fifteen MFs for offshore production and production outsourcing were obtained (Figure 3.5). Those MFs emphasize the behaviour or action of a firm are the availability of material (MF4), labour (MF5), export quota (MF6), technologies (MF7) and government policies (MF8) of the host countries, or exploiting the market (MF10) and taking the geographic advantage (MF9) of the host countries. Those MFs are emphasize the end or aim of action are enjoying cost advantage in the host countries (MF3), improving production performance (MF12), fulfilling clients' request or preference (MF13), focusing on the core competencies (MF14) and competitive advantages of the company (MF15). Those MFs emphasize the motivational element underlying goals are the decline of the domestic garment production industry (MF1) and absence of suitable domestic garment production provider (MF2). MF3 to MF15 carry the positive motivations for production sourcing, that is, firm's attempt production sourcing was pulled by those motivational factors. Whereas, MF1 and MF2 are the negative motivational factors that firm was pushed to pursue offshore production because of the limitation in Hong Kong.

### **5.3.3 Action**

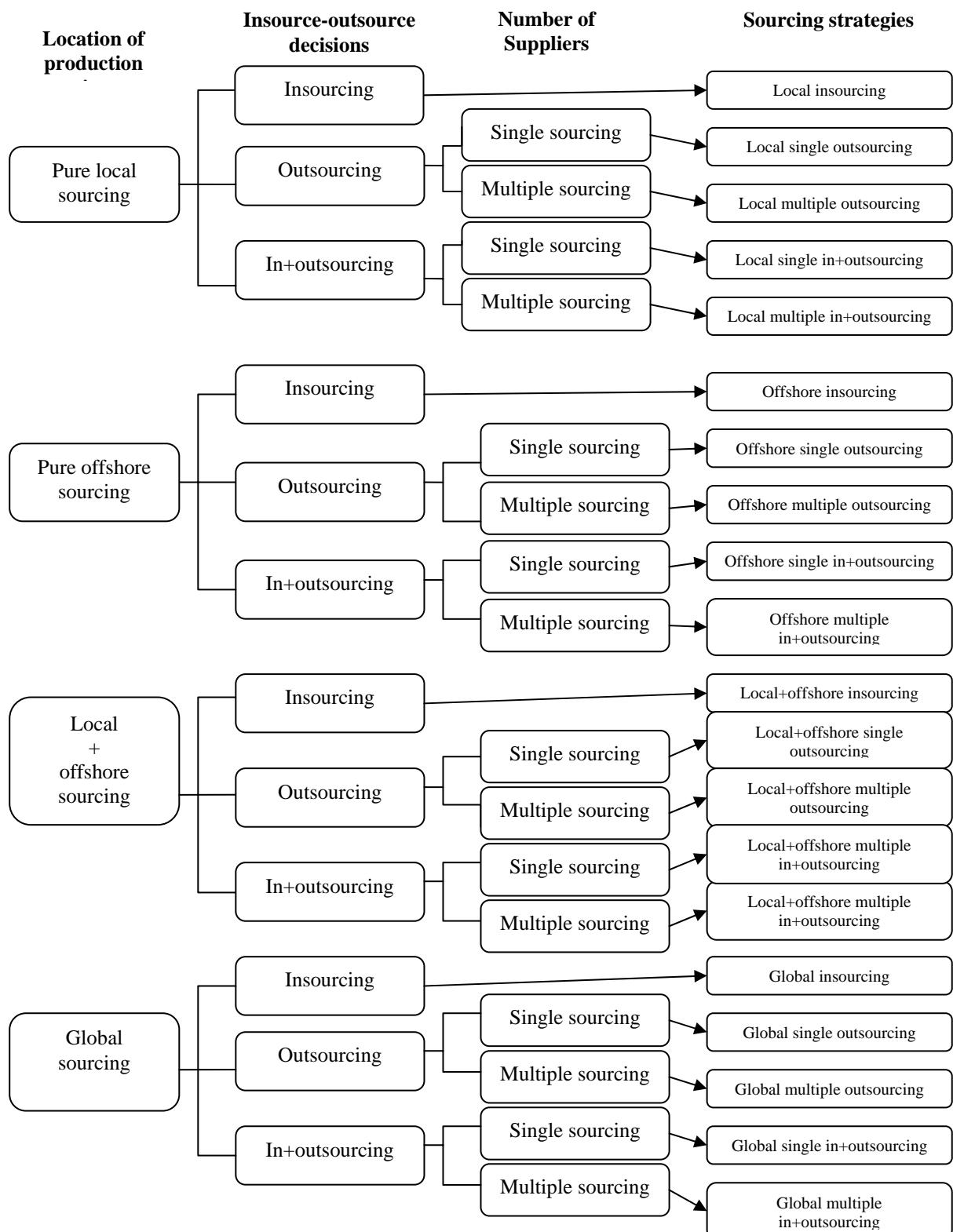
Goal setting theory assumes that human action is directed by conscious goals and intentions. Action refers to an individual's idea of and desire to pursue the goals that causes action (Locke 1991). Usually, goal and intention, once accepted and understood, will remain in the

background or periphery of consciousness, as a reference point for guiding and giving meaning to subsequent mental and physical action.

Strategy is the consequence of a firm's decision or action. There are several strategic decisions and actions regarding practices in the sourcing of production. Following the literature review mentioned in section 3.3.3, production-sourcing strategies in light of three dimensions were identified: (1) Insource-outsource decisions (insourcing and outsourcing); (2) Location of production sites (local sourcing, offshore sourcing, and global sourcing); and (3) Number of suppliers (single sourcing and multiple sourcing). This study further viewed production sourcing strategies in multiple-dimensions, that is, with different combinations of all these sourcing strategies. Accordingly, a total of 20 sourcing strategies were identified. These sourcing strategies are listed in Figure 5.4.

Furthermore, the adoption of buyer-supplier relationship has been recognized as a type of strategy and a powerful tactic for strengthening a firm's sourcing activities (Krotseng 1997; Monczka 2002; Sheth 1996). Following the literature review, six types of buyer-supplier relationships were identified: (1) pure transaction; (2) repeated transaction; (3) long-term relationship; (4) buyer-seller partnership; (5) strategic alliance; and (6) network organization. All these six types of buyer-supplier relationship are used as parts of the research model for this study.

**FIGURE 5.4**  
**Sourcing Strategies in Multiple-Dimensions**



Source: Developed for this thesis.

### **5.3.4 Performance**

The growth of firms is influenced by firm-related characteristics, goals, intentions and actions (Storey, 1994; Lock and Latham, 1990). Growth is a kind of outcome that reflects the performance of a firm. Apart from the theories of goal setting by Locke (1991) and the growth of small firms by Storey (1994), other theories such as the expectancy theory (Vroom, 1960), also emphasize this issue. Vroom's expectancy theory starts with the idea that people tend to prefer certain goals or outcomes, and thus anticipate experiencing feelings of satisfaction should such preferred goals be achieved. This implies that a firm may feel satisfied with its sourcing performance when the MFs of production sourcing are achieved. Following the literature review and multiple-case study, as shown in Figure 5.3, seven critical performance indicators (CPIs) for production sourcing arrangements were identified. They include: (1) on-time delivery; (2) the controlling of costs; (3) increase in competitiveness; (4) improvements in quality; (5) access to worldwide technology; (6) improved relationships with customer; and (7) improved profitability. All these seven CPIs are used for evaluating the level of satisfaction with the performance of production sourcing in this research model of this study.

## **5.4 Development of Hypotheses**

In the previous section, an overall conceptual model was developed to express the relationships between all the variables. To support the development of this basic model, ten hypotheses were identified. The detail of each hypothesis is discussed in the following.

### **5.4.1 The Impact of Firm-related Characteristics on Performance Satisfaction (H1)**

Studies show that firm-related characteristics, such as firm age and firm size, have an influence on the performance of firms (Davidsson 1989; Evans 1987b; Evans 1987a; Mascarenhas 1999). According to Davidsson (1989), firm's age and size have been a negative correlation with growth. A plausible explanation for this is that the objective behind further expansion declines when a firm increases in age and size. The older a firm, the more it has been proven to be viable doing what it currently does. The larger it is, the more likely are profits to be high enough to ensure fulfilling overall expenses. Conversely, Mascarenhas (1999) has pointed out that these large enterprises (LEs) have strong growth expectations, whereas the objective of small and medium enterprises (SMEs) is not to grow, but to survive. According to the studies mentioned above, scholars are found having different views regarding the impact of firm-related characteristics on the growth and performance of a firm. Because firm size and firm age is related to the characteristics of small firms. Therefore, the other variables of firm-related characteristics, such as ownership, sector and location are assumed having an impact on performance satisfaction. To examine this issue, a hypothesis is offered as follows:

H1 Firm-related characteristics affect the SME's satisfaction with the performance of production sourcing.

#### ***5.4.2 The Impact of MFs on Performance Satisfaction (H2)***

Goal setting theory also assumes that the goals and intentions that people have in carrying out a task influence what they will do and how well they will perform that task. Similarly, according to the growth theory of small firms (Storey 1994, p.128), a firm's motivation (goals and intentions) has a bearing on whether or not the business grows. Firms with positive motivations are more likely to establish a business that subsequently grows than those with negative motivations (Storey 1994). Positive motivations include the perception that a market

opportunity exists for a product or service, and the desire to make more money. Negative motivations refer to threats and dissatisfaction with the current business environment. The positive and negative motivational factors for production sourcing were discussed in section 5.3.2. Furthermore, several studies about the behaviour of firms also show a relationship between the motivations (goals and intentions) and the growth of firms (Barkham 1992; Johnson 1991; Storey et al. 1987). Therefore, it is hypothesized that:

H2 The perceived importance of MFs affects the SME's satisfaction with the performance of production sourcing.

#### ***5.4.3 The Impact of the Adoption of Sourcing Strategies and Buyer-Supplier Relationship on Performance Satisfaction (H3 and H4)***

The goal setting theory (Locke and Latham 1990) specifies that action affects performance. Indeed, in their study on the relationship of action and performance, Storey (1994) takes a similar point of view as that held by Locke and Latham (1990), which is that the strategies adopted by firms also direct the growth and performance of the firms. Strategy is the actions that are taken by the owner of a business once in business (Storey 1994, p.144).

Furthermore, Storey (1994) identified fourteen elements that are considered to be elements of business strategy as mentioned in section 3.2.3. Although production sourcing has not been included in these fourteen elements of business strategy, several studies show that production sourcing strategies have been regarded as a new opportunity to maintain comparative and competitive advantages (Elmuti and Kathawala 2000; Laseter 1998; Lowson 2001a; Lowson 2001b; Rajagopal and Bernard 1994; Sheth 1996; Villa 1998; Zeng 2000). Furthermore, the buyer-supplier relationship has been seen as a powerful tactic to strength sourcing activities (Davies 1995; Krotseng 1997; Monczka 2002; Sheth 1996). It is therefore assumed that the

adoption of production-sourcing strategies and buyer-supplier relationships are actions that have an influence on the performance of SMEs. The following hypotheses are offered:

- H3 The adoption of sourcing strategies affects the SME's satisfaction with the performance of production sourcing.
- H4 The adoption of buyer-supplier relationships affects the SME's satisfaction with the performance of production sourcing.

#### ***5.4.4 The Impact of MFs on Sourcing Strategies and the Buyer-Supplier Relationship (H5 and H6)***

Goal setting theory assumes that action is directed by conscious goals and intentions. Usually, goals and intentions, once accepted and understood, will remain in the background or periphery of consciousness, as a reference point for guiding and giving meaning to subsequent mental and physical actions. Goals and intentions affect actions in terms of the intensity, duration, and direction of the actions. Intentions are assumed to capture the motivational factors that influence behaviour. People making decisions on behalf of a firm are acting according to some purposes, so that the behaviour of a firm cannot be understood if one does not know what these goals and intentions are (Penrose 1959). To have a better understanding of the behaviour of firms, it is important to make assumptions about the reason behind firms' decision. Thus, the following hypotheses are formulated:

- H5 The perceived importance of MFs affects the adoption of sourcing strategies.
- H6 The perceived importance of MFs affects the adoption of buyer-supplier relationships.

#### ***5.4.5 The Impact of Firm-Related Characteristics on Sourcing Strategies and the Buyer-Supplier Relationship (H7 and H8)***

Strategy is the consequence of a firm's decisions and actions. Different strategies are adopted depending on the characteristics of firms. The adoption of sourcing strategies of SMEs and LEs are differences (Mascarenhas 1999; Tam et al. 2004). Small firms outsource extensively to cope with their limited resources. They outsource several functions, but each function is not outsourced completely. Retaining some functions in-house enables small firms to retain some control and know-how while benefiting from the expertise, investment, and scale economies of their partners through outsourcing. On the other hand, large firms prefer to either fully insource or purely outsource. This is because large firms in a dominant position have the resources to invest in capital-intensive manufacturing facilities or to control their suppliers.

Furthermore, several studies have suggested that small firms should adopt appropriate buyer-supplier relationships, such as strategic alliances, to overcome the problem of limited resources (Pratten 1991; Villa 1998). Thus, it is also assumed that firm-related characteristics have an influence on the adoption of production sourcing strategies and buyer-supplier relationships. Therefore, it is hypothesised that:

- H7 The firm-related characteristics of SMEs affect the adoption of sourcing strategies.
- H8 The firm-related characteristics of SMEs affect the adoption of buyer-supplier relationships.

#### ***5.4.6 The Impact of Firm-Related Characteristics on MFs (H9)***

Firm-related characteristics influence the goals and intentions of firms (Davidsson 1989; Mascarenhas 1999). In terms of the motivations for sourcing, the motivational factors will be different in different situations such as changes in firm size (Fan 2000), industrial sector (Kakabadse and Kakabadse, 2002; Rajaopal and Bernard, 1994) and location/country of

origin (Lowson, 2001; Kakabadse and Kakabadse, 2002; Rajagopal and Bernard, 1994; Elmuti and Kathawala, 2000). As mentioned in section 3.4.2, American and European companies tend to be motivated by cost advantages, whereas Japanese companies are largely driven by the desire to achieve better quality (Kakabadse and Kakabadse 2002, Rajaopa and Bernard 1994). This implies that the goals and intentions will be different from firm-related characteristics of SMEs. That is, firm size, firm age, ownership, sector and location may have an influence on motivation for production sourcing. Thus, the following hypotheses are proposed:

H9 The firm-related characteristics of SMEs affect the perceived importance of MFs.

#### ***5.4.7 The Interrelationship between Sourcing Strategies and Buyer-Supplier Relationships (H10)***

Different sourcing activities require different types of buyer-supplier relationships (Nellore and Soderquist 2000; Olsen and Ellram 1997; Quinn and Hilmer 1994). Quinn and Hilmer (1994) have suggested that activities with a high potential to give a company a competitive edge should be insourced. A moderate potential for a competitive edge indicates activities that should be outsourced, and calls for a range of relationships such as a long-term contractual vendor relationship or a discrete contractual relationship. For activities with a low potential to give a company a competitive edge, outsourcing should be adopted and an arm's-length relationship with suppliers should be adopted. This study identified production sourcing strategies in three dimensions, they are: insource-outsource decision, decisions on the production site, and the number of suppliers. The relationship between the choice of production sourcing strategies under these dimensions and the adoption of buyer-supplier relationships is suggested to examine. The hypothesis regarding the relationship between

production sourcing strategies and buyer-supplier relationships is, therefore, formulated as follows:

H10 There is relationship between the adoption of sourcing strategies and buyer-supplier relationships.

## **5.5 Chapter Summary**

This chapter reviewed the development of a research model and hypotheses took the configuration theory as reference and based the growth theory of small firms and goal setting theory. The configuration theory posits that for each set of strategic characteristics, there exists an ideal set of organizational characteristics that yield superior performance. The growth theory of small firms argues that the firm-related characteristics of SMEs, motivations, and the strategic decisions of firms influence the performance and growth of small firms. The goal setting theory is a way of understanding the behaviour of the decision maker of firms. According to this theory, the hub of motivation consists of intentions and goals, which have a direct relationship on action and performance. Motivational factors (MFs) are factors that are related to goals and intentions.

A conceptual model and ten hypotheses of this study were developed from these two theories to explain the production sourcing practices of SMEs. The model of this research illustrated the links between the firm-related characteristics of SMEs, the perceived importance of MFs (goals and intentions), the adopted sourcing strategies and buyer-supplier relationships (action) and, satisfaction with the perceived performance of production sourcing strategies (performance). Table 5.1 summarized the 10 hypotheses of this study. The methodology for

collecting data and for the testing each of these hypotheses will be discussed in the next chapter.

**TABLE 5.1**  
**Ten Hypotheses for this Study**

No.	Hypothesis
H1	Firm-related characteristics affect the SME's satisfaction with the performance of production sourcing.
H2	The perceived importance of MFs affects the SME's satisfaction with the performance of production sourcing.
H3	The adoption of sourcing strategies affects the SME's satisfaction with the performance of production sourcing.
H4	The adoption of buyer-supplier relationships affects the SME's satisfaction with the performance of production sourcing.
H5	The perceived importance of MFs affects the adoption of sourcing strategies.
H6	The perceived importance of MFs affects the adoption of buyer-supplier relationships.
H7	The firm-related characteristics of SMEs affect the adoption of sourcing strategies.
H8	The firm-related characteristics of SMEs affect the adoption of buyer-supplier relationships.
H9	The firm-related characteristics of SMEs affect the perceived importance of MFs.
H10	There is relationship between the adoption of sourcing strategies and buyer-supplier relationships.

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Source: Developed for this thesis.

## **CHAPTER 6**

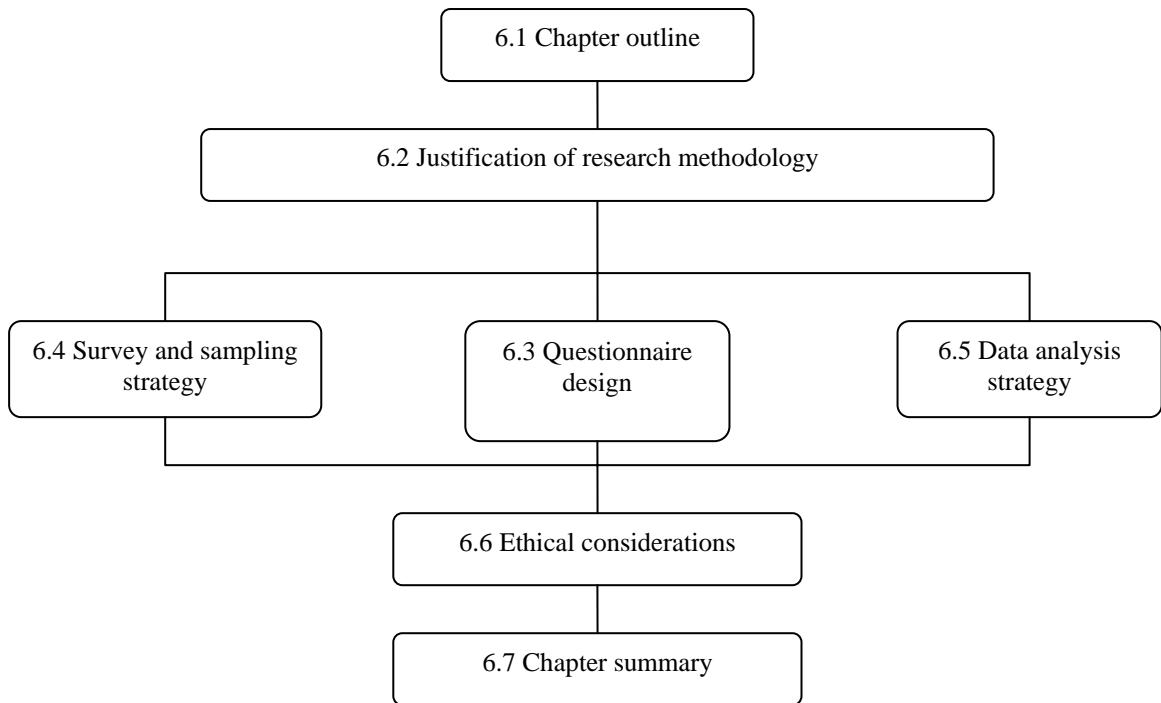
### **RESEARCH METHODOLOGY**

#### **6.1 Chapter Outline**

A two-stage methodology was applied in this research. The first stage was the exploratory study in Chapter 4. This chapter describes and justifies the second research methodology of a survey. Seven sections are included, as shown in Figure 6.1., section 6.2 provides a justification of the research paradigm and methodology. Sections 6.3, 6.4 and 6.5 describe the research procedures of questionnaire design, survey and sampling strategy, and the data analysis strategy. The ethical considerations are discussed in section 6.6, and a chapter summary is provided in section 6.7.

**FIGURE 6.1**  
**Outline of Chapter 6**

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Source: Developed for this thesis.

## **6.2 Justification of Research Methodology**

This section justifies the paradigm that underlies this research, and then discusses and justifies the research design and methodology.

### ***6.2.1 Justification for the Paradigm and Methodology***

A research study operates within a scientific paradigm that is either explicit or implicit (Perry et al. 1999). Paradigms are models, intellectual frameworks, or frames of reference, with which researchers in organisational science can affiliate themselves (Thietart and Associates 2001). A paradigm is a basic belief system that guides the researcher. That is, it refers to how

a study is based on the researcher's explicit or implicit philosophies about the world and the nature of knowledge.

The paradigm underlying this research could be classified as a combination of both realism and positivism rather than the alternatives of critical theory, or constructivism. This is because realism and positivism deal with an external and social reality (Perry et al. 1999). *Realism* postulates that the social world external to individual cognition is made up of hard, tangible, and relatively immutable structures (Kerlinger and Lee 2000). This type of research involves searching, although necessarily imperfectly, for an understanding of a common reality (Perry et al. 1999). In the case of this study, there are the research issues of how clothing SMEs in Hong Kong carry out the sourcing of production and what the motivational factors and performance indicators for production sourcing are. The multiple-case study of 10 clothing SMEs was conducted to explain these issues.

After conducting a literature review and the multiple-case study, a conceptual model with ten hypotheses was established. The testing of the conceptual model and ten hypotheses of this research fit under the paradigm of *positivism*. Positivism believes reality is easily apprehendable. Reality and the subject observing or testing that reality are independent of each other (Perry, Riege et al. 1999) and is the paradigm underlying most business research. The paradigm is adopted in this research for examining the relationships among firm-related characteristics, sourcing strategies, buyer-supplier relationships and performance satisfaction with production sourcing. With the use of a questionnaire survey, a new model explaining the new relationships of these issues was therefore formulated.

In contrast, *critical theory* aims at critiquing and transforming social, political, cultural, economic, ethnic and gender values. The assumptions of this paradigm are essentially subjective, and knowledge is grounded in social and historical routines (Perry, Riege et al. 1999). Hence, the paradigm is not appropriate, because this research aims at understanding sourcing practices rather than changing them or their approaches to formulate strategies.

Like critical theory, *constructivism* enquires about the ideologies and values that lie behind a finding (Perry, Riege et al. 1999). Research into this created knowledge depends on the interaction between interviewer and the respondent: that is, the researcher has to be a ‘passionate participant’ during their fieldwork. This approach is suitable for some social science research, such as studies on religion, beauty, or prejudice, but it is rarely appropriate for business research because it excludes concerns about the clearly real economies and technological dimensions of business (Kerlinger and Lee 2000). The objective of this research is to understand the real sourcing practices of small and medium-sized clothing firms in Hong Kong, so it will not adopt this paradigm.

### ***6.2.2 A Two-Stage Design for this Research***

A research design is a framework or blueprint for conducting research that specifies the procedures necessary to obtain the information needed to structure and/or solve the research problem (Malhotra 2002). This section addresses how an appropriate design was chosen for this research to ensure that the information and data collected would answer the research questions and would be collected economically. Research designs are commonly classified based on their purpose as exploratory, descriptive, or causal/explanatory (Malhotra 2002; Sekaran 2000; Tull and Hawkins 1993). This study adopted a combined approach, with all three types of research being used, each playing a different and complementary role.

First, exploratory research was used in stage one (Chapters 2, 3 and 4) to explore the problem situation: that is, to gain ideas and insights into the problem confronting the management or the researcher (Malhotra 2002, p. 84). This exploratory research included a literature review (Chapter 2 and 3) and a multiple-case study (Chapter 4), which were used to develop the questionnaire and to establish research models and hypotheses.

In the second stage, descriptive and explanatory research was applied by using a questionnaire survey. Descriptive research was used to describe the phenomena in the research topic under study (Malhotra 2002, p. 89): that is, to discover the frequency of the incidence of phenomena such as firm age, firm size and the perceived satisfaction with the performance of production sourcing. The survey required a structured design and an appropriate number of respondents to minimise errors and maximise reliability. Details of the survey are provided in section 6.3.

However, descriptive research does not explain relationships between variables, and an explanatory approach had to be included in the study. Explanatory research involves specifying the nature of the functional relationship between two or more variables in the model (Tull and Hawkins 1993, p. 57) and seeking the relationship of cause-and-effect between the variables (Malhotra 2002, p. 93). To examine this cause-and-effect relationship, a causal design is needed. That is, a design in which the causal, or independent variables, are manipulated in a relatively controlled environment. A relatively controlled environment is one in which the other variables that may affect the dependent variables are controlled or checked as much as possible (Malhotra 2002, p. 94). In this study, the effects of the firm-related characteristics of SMEs, the perceived importance of MFs, the adoption of

sourcing strategies and buyer-supplier relationships and the satisfaction of performance of production sourcing are explored, and the interrelationships between the adoptions of buyer-supplier relationships and sourcing strategies are also investigated.

In brief, for this research, an exploratory study was conducted in stage one, followed by a descriptive and an explanatory/causal approach in stage two, in which a questionnaire survey was used to test the hypotheses.

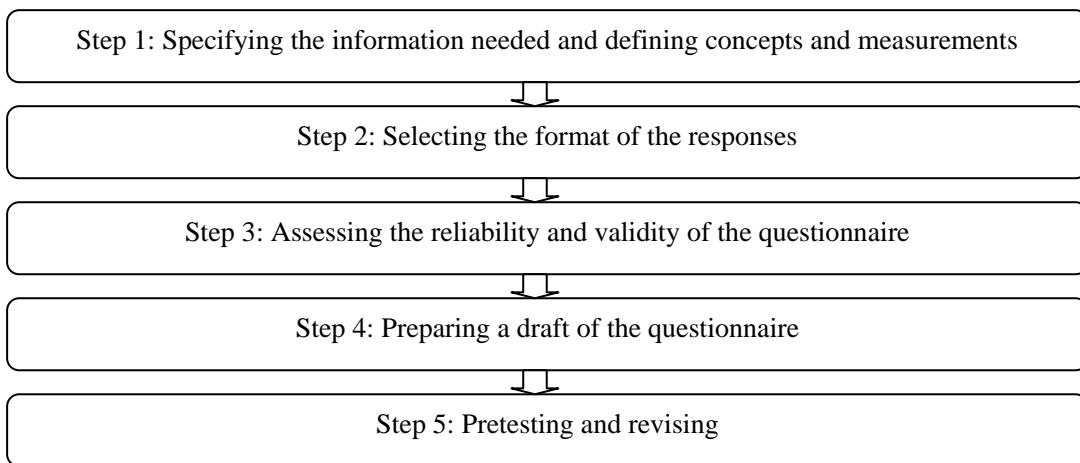
After reviewing and justifying the use of exploratory, descriptive and explanatory research design for this study, three areas in the second stage of a questionnaire survey, questionnaire design (section 6.3), survey strategy (section 6.4) and data analysis (section 6.5), are addressed in the following three sections.

### **6.3 Questionnaire Design**

This section discusses the process of developing a questionnaire. A questionnaire is simply a formalised set of questions for eliciting information (Tull and Hawkins 1993, p. 330). In this study, the questionnaire was designed to serve a number of purposes by translating research objectives into a series of questions. The questionnaire used in this research is included in Appendix. The five steps in the design of the questionnaire are illustrated in Figure 6.2, and details of each step are provided in the following sub-sections.

**FIGURE 6.2**  
**The Questionnaire Design and Development Process used in this Research**

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Sources: Synthesized from Malhotra (2002) and Tull and Hawkins (1993).

### ***6.3.1 Step One: Specifying the Information Needed and Defining Concepts and Measurements***

The first step in designing the questionnaire was to identify the information needed based on the research questions and hypotheses. The research questions were provided in section 1.3. The information relating to the research questions was obtained by a literature review (Chapter 2 and 3) and through a multiple-case study (Chapter 5). During the multiple-case study, representatives from ten small and medium-sized clothing firms were interviewed. The relevant variables were then identified. The hypotheses were developed in section 5.4. These hypotheses provided a framework for the design of the questionnaire.

Before the measurement process could be initiated, concepts relevant to the research problems had to be identified. A concept is simply a name invented for an object, person, state, or event. Concepts aid the process of thinking by subsuming a number of events under one heading (Tull and Hawkins 1993, p. 300). There are two approaches to defining a concept adequately: conceptual and operational. A conceptual definition states the central

idea or essence of the concept. It is a process of assigning theoretical or abstract meanings to a concept or construct (Tull and Hawkins 1993, p. 302; Sekaran 2000). An operational definition describes the activities that the researcher must complete to assign a value to the concept under consideration (Tull and Hawkins 1993, p. 302). In brief, concepts are abstractions; an operational definition translates the concept into one or more observable events. The conceptual and operational definitions of the research are shown in Table 6.1

After reviewing the conceptual and operational definitions of this study, the independent and dependent variables were also identified based on the developed hypotheses. Independent variables are variables or alternatives that are manipulated and whose effects are measured and compared. Dependent variables are the variables that measure the effect of the independent variables on the test units (Malhotra 2002, p. 228). Table 6.2 lists the research issues together with the independent and dependent variables used.

**TABLE 6.1**  
**Conceptual and Operational Definitions of Construct, Survey Questions and Scales Used in this Research**

<b>Construct</b>	<b>Conceptual Definition</b>	<b>Operational Definition</b>	<b>Survey Question</b>	<b>Scales</b>
Firm-related characteristics of SMEs	The firm-related characteristics of SMEs refer to the characteristics of the business itself. They are associated with factors such as firm size, firm age, business sector, ownership and location (Storey 1994, p. 123).	Sector refers to the nature of the business, such as manufacturer or trading agent.	Question A1 of the questionnaire.	Nominal
		Firm age is measured by the number of years a firm has been in business.	Question A2 of the questionnaire.	Ratio
		Firm size is measured by the number of employees of a firm.	Question A4 of the questionnaire.	Ratio
		Ownership refers to the legal right or possession of a firm such as fully-owned or partnership.	Question A3 of the questionnaire.	Nominal
		Location refers to the site of the firm's parent company.	Question A3 of the questionnaire.	Nominal
Motivation for sourcing production	Motivation refers to the goals and intentions for doing something (Locke and Latham 1990).	Agreement with the statements in a 5-point Likert scale about the reasons why SMEs pursue production-sourcing activities.	Part C of the questionnaire.	Interval
Sourcing strategies	Sourcing refers to the philosophy of selecting vendors in a manner that makes them an integral part of the buying firm for a particular component or part of a product (Zenz 1994).	The location of production sites can be measured by the adoption of local sourcing, offshore sourcing or global sourcing.	Questions B1a and B2a	Nominal
		The no. of suppliers can be measured by the adoption of either single sourcing or multiple sourcing.	Questions B1b, c and B2b,c.	Nominal
		The insource-outsouce decision can be measured by the adoption of either insourcing or outsourcing.	Questions B1c and B2c	Nominal
Buyer-supplier relationships	The buyer-supplier relationship refers to interactions between buyers and suppliers that involve different kinds of marketing marketing-exchange activities (Frederick and Webster 1992).	Pure transaction refers to whether or not a firm adopts single transaction.	Question B3a of the questionnaire.	Nominal
		Repeated transaction refers to whether or not a firm adopts at least once in past 12 months.		Nominal
		Long-term relationship refers to whether or not a firm adopts multi-transactions with more than two years business relationship.		Nominal
		Buyer-seller partnership refers to whether or not a firm involves mutual trust between buyers and sellers.		Nominal
		Strategic alliance refers to whether or not a firm develops long-term strategic partnering relationship.		Nominal
		Network organisation refers to whether or not a firm adopts multiple relationships with different organisations.		Nominal
Performance satisfaction of production sourcing	The feelings of satisfaction as a consequence of the preferred goals to be achieved (Vroom 1960).	The extent of agreement with statements in a 5-point Likert scale about how satisfied the firms feel after the adoption of a certain kind of sourcing strategy.	Part D of the questionnaire.	Interval

Source: Developed for this thesis.

**TABLE 6.2**  
**Independent and Dependent Variables Used in the Research**

<b>Research Issue</b>	<b>Independent Variables</b>	<b>Dependent Variables</b>
1. What influences performance satisfaction with production sourcing?	<ul style="list-style-type: none"> <li>● Firm-related characteristics of SMEs</li> <li>● Perceived importance of motivational factors for production sourcing</li> <li>● Adoption of sourcing strategies</li> <li>● Choice of buyer-supplier relationships</li> </ul>	<ul style="list-style-type: none"> <li>● Perceived performance satisfaction with production sourcing</li> </ul>
2. What influences the adoption of sourcing strategies and buyer-supplier relationships?	<ul style="list-style-type: none"> <li>● Firm-related characteristics of SMEs</li> <li>● Perceived importance of motivational factors for production sourcing</li> </ul>	<ul style="list-style-type: none"> <li>● The choices of sourcing strategies and buyer-supplier relationships</li> </ul>
3. What influences the motivations for sourcing production?	<ul style="list-style-type: none"> <li>● Firm-related characteristics of SMEs</li> </ul>	<ul style="list-style-type: none"> <li>● Perceived importance of motivational factors for production sourcing</li> </ul>
4. What influences the adoption of buyer-supplier relationships	<ul style="list-style-type: none"> <li>● Adoption of sourcing strategies</li> </ul>	<ul style="list-style-type: none"> <li>● Adoption of buyer-supplier relationships</li> </ul>

Source: Developed for this thesis.

### **6.3.2 Step Two: Selecting the Format of the Responses**

The second step in developing the questionnaire was to decide the scale of measurement for each variable (Table 6.1). There are four types of measurement scales commonly used in business: nominal, ordinal, interval and ratio.

A *nominal* scale is comprised of numbers that serve as labels to identify or classify objects (Tull and Hawkins 1993, p. 305). In this research, questions A1, A3, B1a to B1c, B2a to B2c, B3a, and E2 have nominal scales.

An *ordinal* scale uses numbers, letters or other symbols to rank items. Items can be classified according to whether they share characteristics with another item, but also according to

whether they have more or less of those characteristics than other objects. However, an ordinal scale does not provide information about how much more or less of the characteristic various items possess (Tull and Hawkins 1993, p. 306). In this research, no question has a ordinal scale.

An *interval* scale assigns numbers to rate objects such that a numerically equal distance on the scale represents an equal distance in the characteristic being measured (Malhotra 2002). Five-point Likert type scales, with all points labelled, were used to collect data for parts C and D of the questionnaire, because they are the most popularly used scales for measuring attitude and make the responses easier to administer, code and adapt to statistical analyses (Zikmund 2000). Moreover, the Likert scales used in questions in parts C and D can be treated as intervals because many social scientists accept that Likert scales can be treated as such.

A *ratio* scale consists of numbers that rank items such that numerically equal distances on the scale represent equal distances in the property being measured and have a meaningful zero. In this research, questions A2, A4, and E3 have ratio scales.

In brief, this research used nominal, interval and ratio scales.

### **6.3.3 Step Three: Assessing the Reliability and Validity of the Questionnaire**

The third issue in this research design is whether the questionnaire accurately and consistently measures what it is supposed to measure: that is, it should be valid and reliable. Validity addresses the problem of whether an instrument measures what it is supposed to measure, while reliability refers to the extent to which a scale produces consistent results (Malhotra 2002; Zikmund 2000). The basic approaches dealing with the issue of validity relevant to this research are summarised in Table 6.3 and will be discussed next.

**TABLE 6.3**  
**Assessment of the Validity and Reliability of the Questionnaire**

<b>Types of Validity and Reliability</b>	<b>Definition</b>	<b>Assessment Strategies</b>
Face or content validity	A type of validity, sometimes called face validity, which consists of a subjective but not systematic evaluation of the representativeness of the content of a scale for measuring the task at hand.	<ul style="list-style-type: none"> <li>• Literature review</li> <li>• Multiple-case study</li> <li>• Feedback from experts</li> <li>• Pre-testing of questionnaire</li> </ul>
Construct validity	A type of validity that addresses the question of what construct or characteristics the scale is measuring. An attempt is made to answer theoretical questions about whether a scale works and to determine what deductions can be made concerning the theory underlying the scale.	<ul style="list-style-type: none"> <li>• Literature review</li> <li>• Pre-testing of questionnaire</li> </ul>
Convergent validity	A measure of construct validity that measures the extent to which the scale correlates positively with other measures of the same construct.	<ul style="list-style-type: none"> <li>• Data analysis such as correlation</li> </ul>
Discriminant validity	A type of construct validity that assesses the extent to which a measure does not correlate with other constructs from which it is supposed to differ.	<ul style="list-style-type: none"> <li>• Data analysis such as exploratory factor analysis</li> </ul>
Reliability	The extent to which a scale produces consistent results if repeated measurements are made of the characteristic.	<ul style="list-style-type: none"> <li>• Clear statement and use of multiple indicators</li> <li>• Pre-testing of questionnaire</li> <li>• Test and re-test</li> </ul>

Source: Adapted from Malhotra (2002).

*Content or face validity* refers to the subjective agreement among professionals that a scale logically appears to reflect accurately what it intends to measure (Zikmund 2000). To

increase the content or face validity of this research, previous studies were examined to explore possible dimensions (section 3.5.2) and in-depth interviews were conducted in the multiple-case study to identify the variables related to the research problem. After the development of the questionnaire, the draft was then pre-tested among ten respondents and the final version was adjusted based on the feedback and comments from these respondents (section 6.3.5).

*Construct validity* concerns understanding the theoretical rationale underlying the measurements (Malhotra 2002). To achieve construct validity, the researcher must have determined the meaning of the measure by establishing *convergent* validity and *discriminant* validity (Zikmund 2000). Convergent validity is the extent to which the scale correlates positively with other measures of the same construct, while discriminant validity is the extent to which a measure does not correlate with other constructs from which it is supposed to differ (Malhotra 2002). In Chapter 7 of this research, convergent validity and discriminant validity will be statistically assessed by correlation and exploratory factor analysis.

*Reliability* is the degree to which measures are free from error, and so yield consistent results (Zikmund 2000). To establish the reliability of the measurement scale, two steps were incorporated into the research design. First, clear conceptual and operational definitions of concept were developed as shown in Table 6.1. Second, the measure was pre-tested and modified before being administered. A more detailed assessment of validity and reliability involving a statistical analysis of the collected data are reported in Chapter 7.

#### **6.3.4 Step Four: Preparing a Draft of the Questionnaire**

The next step in designing the questionnaire for this research was to draft the questionnaire using principles of questionnaire design such as determining the content and wording of individual questions, choosing the structure of the questions, determining the order of the questions and identifying the physical layout of the questionnaire (Malhotra 2002, Zikmund 2000).

*The content and wording* used in the questionnaire should be easily understandable to all respondents (Malhotra 2002). Additionally, only brief, legitimate, applicable questions should be asked; double-barrelled, ambiguous words, and sensitive questions should be avoided (Zikmund 2000; Malhotra 2002). The use of appropriate language is also important (Moon, 2001). Preferably, the language that is spoken by the target respondents should be used. Hong Kong is an international city and its clothing industry is export-oriented, so the use of English is common. However, the mother tongue of most people in Hong Kong is Chinese. Thus, the questionnaire was translated into Chinese after its initial development in English, as shown in Appendix.

The *structure of a question* concerns the format of the responses. Formats such as multiple-choice, open-ended, dichotomous, and scale were used in the questionnaire for this research (see Appendix). The multiple-choice format (questions A1, A3, B1, B2, B3 and E2) and the open-ended format (questions A2, A4, E1 and E3) were applied to gain a general understanding of the responding firms. The ‘yes’ or ‘no’ dichotomous format was used for the screening the questions related to the allocation of production (part B of the questionnaire), i.e. the adoption of production sourcing strategies. The scale questions in parts

C and D were close-ended, with specific ordered choices that were less demanding for the respondents. To measure the perceived importance of the motivational factors for production sourcing, the descriptors of “extremely significant” to “not at all significant” were used, while to measure the perceived satisfaction with the performance of production sourcing, the descriptors of “extremely satisfied” to “not at all satisfied” were used.

The *order of the questions* may affect the respondent’s willingness to cooperate and, hence, the quality of the responses received (Moon 2001). Questions that could be perceived as difficult should be placed late in the sequence after a relationship has been established and the respondent is involved in the process (Malhotra 2002; Moon 2001; Tull and Hawkins 1993). Moreover, questions should be asked in a logical order, organised around topic areas. In this research, questions designed to obtain general information about the firms were asked first (part A), after which those that identified production sourcing strategies and buyer-supplier relationships were asked (part B). This was followed by questions on the perceived motivational factors for sourcing production (part C) and those that determined satisfaction with the performance of production sourcing (part D). Finally, questions about the informant were placed last because the informants might not have been willing to answer personal questions and name their companies. However, those questions were important in order to evaluate the suitability of the informant and avoid duplicating information on the responding firms.

The physical characteristics of a questionnaire, such as the format, spacing and positioning, can have a significant effect on the result (Malhotra 2002; Moon 2001; Tull and Hawkins 1993). The basic principle of a good layout is that it should be neat, attractive and easy to follow (Moon 2001). Furthermore, dividing the questions into sections with separate topic

areas for each section is a good practice (Malhotra, 2002). The quality of the paper and printing, and the size and style of the fonts should also be considered. In brief, the questionnaire should be clear, well organised and easy to compile. The intention behind such a careful design is to show the respondents that the survey is important and was professionally prepared (Moon 2001).

### ***6.3.5 Step Five: Pre-testing and Revising***

The last stage in designing the questionnaire was pre-testing of the questionnaire. A pre-test is a field test of the data collection instrument. It is designed to discover the questions that will cause the respondent problems: those that are unclear and need to be reworded, added, dropped or repositioned (Tull and Hawkins 1993).

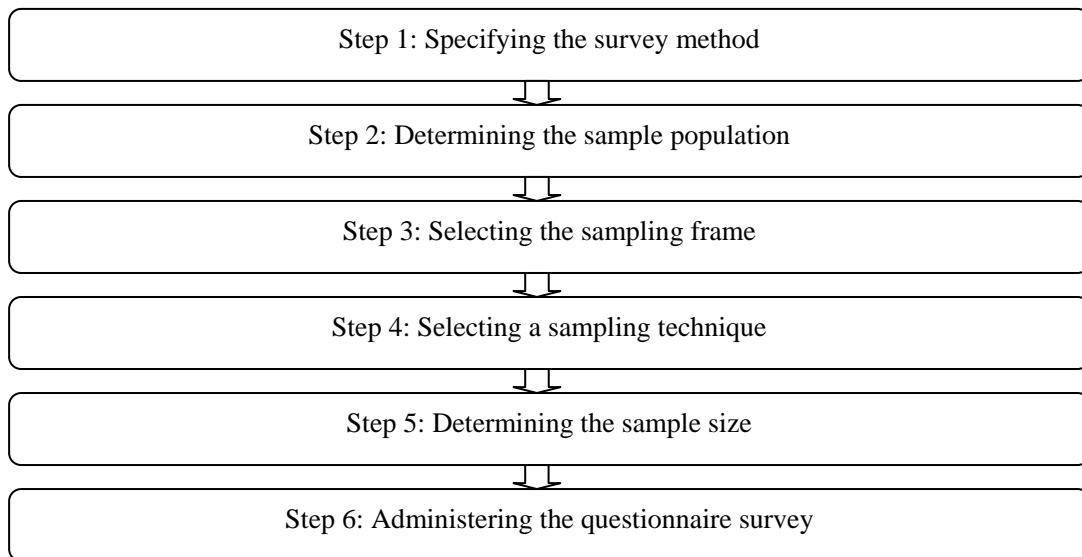
Usually, the questionnaire can be pre-tested on a group that is selected on the basis of convenience and is similar to the one that will ultimately be sampled (Zikmund 2000). In this research, the questionnaire was pre-tested on ten practitioners who were working in the Hong Kong Clothing industry. This pre-test was conducted in a realistic manner by asking the selected group to fill out the questionnaire and timing how long it took them to complete it. When they had completed the questionnaire, a debriefing session was held to go over any issues that arose during its administration. The results indicated that some respondents were not sure what the term “affiliate” referred to; thus, a clear definition of this term was added. Overall, there were no major problems with the design of the questionnaire, and the survey could be completed within five to ten minutes.

## **6.4 Survey and Sampling Strategy**

This section focuses on the strategy in the process of collecting data. Figure 6.3 illustrates the strategy in six steps.

**FIGURE 6.3**  
**Survey Strategy for this Research**

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Source: Developed for this thesis.

### ***6.4.1 Step 1: Specifying the Survey Method***

The first step in the survey strategy was to specify how the data would be gathered. Data can be collected using many methods, such as through telephone interviews, personal interviews, mail interviews and electronic interviews (Tull and Hawkins 1993; Malhotra 1999; Zikmund 2000). The choice of the survey method in this study depended on the objectives and constraints of the research (Malhotra 2002). Table 6.4 summarises the advantages and

limitations of each type survey method, and shows that the preferred method was the personal interview.

**TABLE 6.4**  
**Comparative Evaluations of Survey Methods**

Comparison dimension	Personal	Mail	Internet	Telephone
1. Suitability for complex questionnaires	Excellent	Poor	Poor	Good
2. Control of survey environment	Excellent	Poor	Poor	Fair
3. Minimisation of interviewer effect	Poor	Excellent	Excellent	Fair
4. Cost of data collection	Poor	Excellent	Excellent	Good
5. Diversity of questions	Excellent	Fair	Fair	Poor
6. Implementation of non-response follow-up	Poor	Excellent	Poor	Excellent
7. Accessibility to geographically dispersed sample	Poor	Excellent	Excellent	Good
8. Minimisation of item non-response	Excellent	Poor	Poor	Excellent
9. Possibility for interviewer to probe and explain	Excellent	Poor	Poor	Good
10. Obtainment of sensitive information	Fair	Good	Good	Fair
11. Quantity of data collectable	Excellent	Fair	Fair	Good
12. Anonymity of respondent	Poor	Excellent	Excellent	Fair
13. Cooperation of respondent	Excellent	Poor	Poor	Good
14. Opportunity for respondent to think about questions	Poor	Excellent	Good	Poor
15. Response rate	Good	Fair	Fair	Poor
16. Sample control	Excellent	Fair	Poor	Good
17. Time required	Poor	Excellent	Excellent	Fair
18. Speed to complete survey	Fair	Poor	Excellent	Excellent
<b>Total count of 'excellent' ratings</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>2</b>

Sources: Synthesized from Malhotra (2002), Tull and Hawkins (1993), Sekaran (2000) and Zikmund (2000).

Personal interviews are widely used in marketing and management research (Tull and Hawkins 1993). In a personal interview, the interviewer asks the respondent questions face to face. This survey method is also regarded as the most efficient way to achieve a high response rate in a comparatively short time (Malhotra 2002; Tull and Hawkins 1993; Zikmund 2000). Overall, the advantages of personally administered questionnaires are the ability to ask more complex questions, and the ability to control the selection of the respondents and the speed of data collection.

After comparing the relative strengths and weaknesses of these alternative survey methods, it was concluded that a personally administered survey was the most appropriate method for

this research. The survey data were obtained from personal interviews conducted in two locations: the Hong Kong Polytechnic University, where the respondents were part-time MA students who were practitioners in the Hong Kong clothing industry; and the Hong Kong Convention and Exhibition Centre, where the respondents were exhibitors at Hong Kong Fashion Week,<sup>3</sup> Fall/Winter 2004, who were involved in the trading and/or manufacturing business of the Hong Kong clothing industry.

The respondents were given a copy of the questionnaire by the interviewer. They filled in the questionnaire in the presence of the interviewer, which allowed them to seek clarification on points of confusion. This procedure turned out to be quite acceptable to the respondents.

In brief, this method is appropriate when demographic factors are not likely to influence the findings of the survey or when a target group is a special segment of the population (Zikmund 2000), such as practitioners in the Hong Kong clothing industry.

Although there were numerous advantages to the personally administered method noted above, there were some disadvantages. Because the respondents were not anonymous, they may have been reluctant to provide confidential information to the researcher, such as the names of their companies (Zikmund 2000). However, this research did not probe into sensitive issues, and only a few respondents hesitated to provide that information. In brief, the disadvantages of the personal interview were not serious.

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<sup>3</sup> Hong Kong Fashion Week is a leading international fashion trade fair in Asia that is organised by the Hong Kong Trade Development Council (TDC) every January and July. It promotes the Hong Kong clothing industry and attracts buyers from various countries.

#### ***6.4.2 Step 2: Determining the Sample Population***

This study focuses on small and medium-sized clothing firms in Hong Kong. As mentioned in section 2.3.1, there are approximately 290 000 SMEs in Hong Kong; over 98% of the companies engaging in the manufacturing and servicing sectors are SMEs (Hong Kong Census and Statistics Department 2001). There are 1850 establishments in the clothing manufacturing sector, and 15508 in the clothing import-export trading sector (Hong Kong Trade and Development Council 2003). Due to the unavailability of data about the total number of SMEs in the Hong Kong clothing industry, it is estimated that there are 1813 in the clothing manufacturing sector and 15198 in the clothing import-export trading sector (i.e. total population x 98%). The definition of firm size in terms of the number of employees in Hong Kong was mentioned in section 1.7, and firm-size was identified by question A4 in the questionnaire. Firms with employees greater than specified figures were withdrawn from this study.

#### ***6.4.3 Step 3: Selecting the Sampling Frame***

The next step in the survey strategy was to determine a suitable sampling frame. A sampling frame is a representation of the elements of the target population. It consists of a list or a set of directions for identifying the target population (Malhotra 2002). The use of an industrial directory, on which the name of the companies, their addresses, contact people, numbers of employees and telephone numbers are provided, is common. However, the problem of sampling frame errors should also be considered. That is, such a directory does not contain the telephone numbers or addresses of firms that have changed

the nature of their business or moved after the directory's publication. Furthermore, it is time consuming to arrange personal interviews based on addresses in a directory.

Therefore, this research considered two other sampling frames: the part-time MA students at the Hong Kong Polytechnic University and the exhibitors during Hong Kong Fashion Week. Overall, the respondents from these two sampling frames were cooperative and willing to answer the questionnaire. This was because the part-time MA students understood the importance of research and were willing to support academic study as they were also pursuing their studies at the university. The Fashion Week exhibitors had little doubt about the use of the data and were very cooperative about being surveyed. Furthermore, the survey was conducted during a time when the respondents were not busy, so they are willing to answer the questions. In brief, this sampling frame resulted in acceptable levels of accuracy and reliability.

#### ***6.4.4 Step 4: Selecting a Sampling Technique***

After determining the appropriate sampling frame, a sampling technique had to be selected to obtain an acceptable representation of the target population. The decision had to be made on whether to use probability or nonprobability sampling (Malhotra 2002). Probability sampling refers to a sampling procedure in which each element of the population has a fixed probabilistic chance of being selected for the sample, while in nonprobability sampling the choice of the sample relies on the personal judgement of the researcher.

In this research, the non-probability sampling approach was followed. This was because during Hong Kong Fashion Week, some exhibitors were very busy at some time in negotiations or serving customers; the interviewer could only approach those respondents who were not too busy and available for interviews. In this way, the questionnaire could be completed and the respondents were not caused too much inconvenience. For the second group of respondents, the MA students, those who were not involved in the clothing industry were not invited to participate in the survey.

#### ***6.4.5 Step 5: Determining the Sample Size***

Determining the size of the sample involved considering several different factors such as the type of sample, the statistics in question, the homogeneity of the population, and the time, money and personnel available for the study (Malhotra 2002). Generally, researchers regard 50 to 200 target respondents as a minimum sample when conducting research among institutional populations (Sudman 1976). To acquire better validity for the analytical result and consider the issue of non-responses, the sample size should be doubled or increased to counteract non-responses (Ghauri et al. 1995). Thus, it was decided that 300 respondents would be approached for personal interview for this research.

#### ***6.4.6 Step 6: Administering the Questionnaire Survey***

Several issues were considered in the administration of the questionnaire, including selecting the field workers, motivating the respondents, gaining permission from sampling venues and the field-editing procedure. These fieldwork considerations were

minimised because the data was collected by the researcher without the aid of other field workers.

As justified above, the questionnaire was administered at the Hong Kong Polytechnic University and during Hong Kong Fashion Week. The study was conducted using the nonprobability sampling technique, as mentioned above.

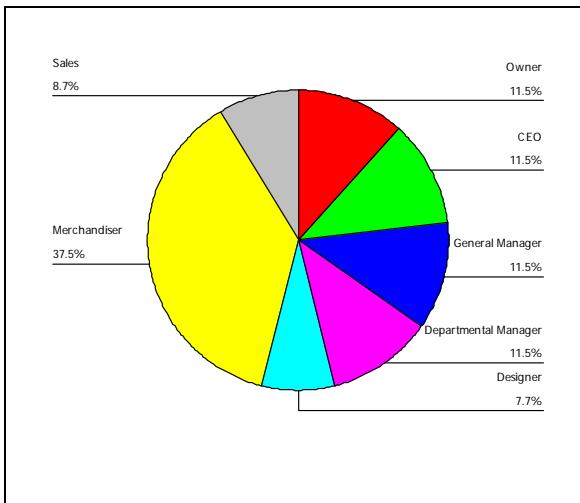
Several techniques to increase the response rate were considered, such as minimising the social costs of responding, rewarding the respondents and gaining their trust. First, to minimise the social costs to the respondent, the questionnaire was designed in a manner that made it quick and easy to answer, as noted above. The use of sensitive questions was also kept to a minimum. Second, a bookmark with the Hong Kong Polytechnic University logo on it was offered to respondents. Finally, to establish trust with the respondents, an introduction was given explaining why the study was important and promising that confidentiality would be maintained. The name of the researcher's university was shown to the respondents in the exhibition; its perceived legitimacy and objectivity may have increased the response rate (Zikmund 2000).

In the final review, 104 usable questionnaires were received, of which 20 usable questionnaires were obtained from the MA students at the Hong Kong Polytechnic University and 84 were received from the exhibitors during Hong Kong Fashion Week. Sixty-five target respondents were not accepted for interview, and 131 returned questionnaires were regarded as unusable. That is, 20 firms were fabric mills that were

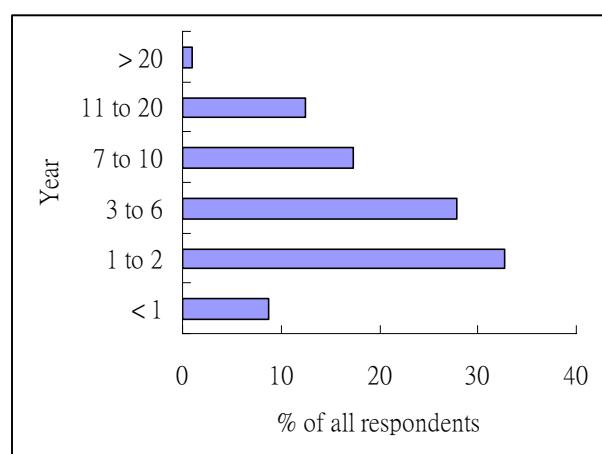
not involved in any garment production activities; 25 firms did not have establishments in Hong Kong; 16 firms were large enterprises; 20 firms left many questions unanswered; and 50 firms were interviewed but the questionnaire was not completed due to the interruptions of other visitors.

These respondents were involved in the trading and manufacturing sectors of the Hong Kong clothing industry and were owners, CEOs, general managers, departmental managers, designers, merchandisers and sales or marketing executives. Their average number of years of service was 5.6 ( $SD=5.52$ ), with more than half of the respondents (61%) having been working in their current firms for more than three years. Detailed information regarding the classification of the job positions and years of service of the respondents are illustrated in Figures 6.4 and 6.5, respectively.

**Figure 6.4  
Job Classification**



**Figure 6.5  
Years of Service**



## **6.5 Data Analysis Strategy**

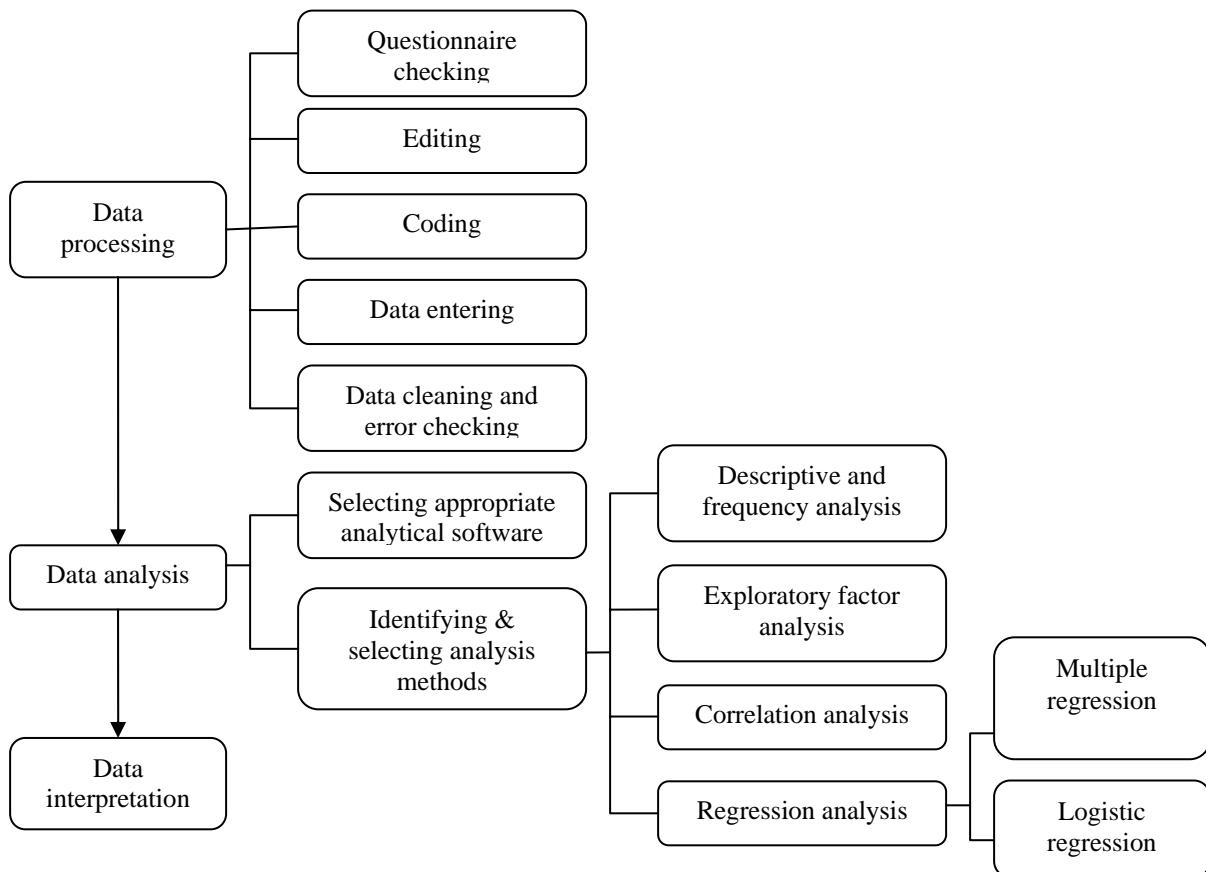
This section briefly addressed the methodology of data analysis, with a detailed presentation of the analysis left to Chapter 7. Before being transformed into information for interpretation, the collected raw data was processed and analysed. A systematic plan for processing and analysing the collected data was developed and implemented, as outlined in Figure 6.6.

### ***6.5.1 Data Processing***

After collecting data from the respondents, the next step was to process the data. Data processing is a pre-analytical process in which a number of procedures are implemented to convert raw data in a data collection instrument into a computer-readable form, so that the data is ready for a subsequent computer analysis (Moon 2001). There are several procedures involved in the pre-analytical process: checking the questionnaire, editing, coding, entering data, and cleaning data and checking for errors.

**FIGURE 6.6**  
**Data Processing and Analysis**

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Source: Designed for this thesis with reference to Moon (2001).

*Questionnaire checking.* This involves checking for completeness and reviewing the quality of the questionnaire (Malhotra 2002). This is a continuous process and begins as soon as the first set of questionnaires is returned, while the fieldwork is still underway. Thus, any problems could be detected early and corrective action could be taken. Questionnaire checking focuses on three major criteria: whether a significant portion of the questionnaire is left unanswered; whether the wrong sample elements have filled out in the questionnaire; and whether the respondents have misunderstood the task and not followed the instructions (Moon 2001). The above principles were fully taken into

account, and returned questionnaires that did not pass the screening process were discarded.

*Editing.* This involves reviewing questionnaires to increase their accuracy and precision. It consists of screening questionnaires to identify illegible, incomplete, inconsistent or ambiguous responses (Malhotra 2002). During the editing process in this research, the data was rechecked to ensure clarity and consistency. For any data that was ambiguous, the respondents were contacted by phone through their name cards obtained during Hong Kong Fashion Week or in the MA class.

*Coding.* Coding means assigning a code, usually a number, to each possible response to each question (Malhotra 2002). Coding involves pre-coding and post-coding. In general, a highly structured question can be pre-coded, which means that the codes of the categories are assigned before the data have been collected. For example, for a dichotomous question, the answer “yes” was assigned a value of “1” and “no” was assigned a value of “0”. Post-coding involves the same procedure as precoding, except that it is done after the questionnaires are received. In this study, open-ended questions such as “others (please specify: \_\_\_\_\_)” were left for post-coding.

*Data entering.* This is the process of changing the original form of the data into a format suitable for computation and analysis (Zikmund 2000). The unanswered questions were assigned a missing data code “-9”. The computer can supply pre-specified “plugs” for missing data or it can calculate values for missing data based on the responses in the

overall data array (Tull and Hawkins 1993, p. 605). As mentioned previously, the missing data was clarified by making phone calls to the respondents. Hence, computer editing for the missing data was not used in this study.

*Data cleaning and error checking.* These were undertaken throughout the pre-analytical process to ensure that the collected data was proofread and corrected (Moon 2001).

### **6.5.2 Data Analysis**

This sub-section focuses on how to analyse the collected data based on the research objectives of this study. The process of data analysis involves selecting the appropriate analytical software, and identifying and selecting the methods of analysis.

*Selecting appropriate analytical software.* This research studies the causal-relationships between the perceived importance of MFs, the adoption of sourcing strategies and buyer-supplier relationships, and the level of satisfaction with performance of production sourcing. To gain a better understanding of the nature of the data and the interrelationship of the variables, Excel and the Statistical Package for the Social Sciences (SPSS) were selected.

Excel is a widely used software package for computing data. It also provides an excellent means for general computation and for producing charts and diagrams. SPSS is a powerful statistical analysis software package that offers a variety of statistics in a host

computer environment, especially for business and social science research. Furthermore, Excel and SPSS can be used interchangeably to manipulate collected data (Moon 2001).

*Identifying and selecting methods of analysing data.* Descriptive and frequency analysis, exploratory factor analysis, correlation and regression analysis were used in this study.

*Descriptive analysis and frequency analysis.* These refer to the transformation of raw data into a form that will make it easy to understand and interpret (Moon 2001). This can help the researcher to understand the general characteristics of the collected raw data set. A descriptive analysis provides the results of the mean score, standard deviation, and minimum and maximum value of each item, such as the average age of a firm, or the smallest and largest firms. Frequency analysis reports the percentage and frequency of data, such as the number and percentage of manufacturers and trading agents in this study.

*Exploratory factor analysis.* This is a multivariate statistical technique that is used to summarise information that contains a large number of variables into a small number of subsets or factors (Kerlinger and Lee 2000). Its main purpose is to simplify the data. An exploratory factor analysis was carried out in this study to reduce and summarise the motivational factors and critical performance indicators for sourcing production. The resulting factor scores were later used for regression analyses.

*Correlation.* Before conducting a regression analysis, correlation was checked for identifying the problem of multicollinearity. Multicollinearity refers to the high correlations among the independent variables. If the correlations among those variables are too high, this can distort the standard error of estimate, and may lead to incorrect results in a regression analysis (Lind 2003).

*Regression.* This is a statistical technique for describing how one variable varies according to a change in another. This is commonly used for predicting or estimating the business situation (Moon 2001). Multiple regression and binomial logistic regression were used in this study.

A multiple regression analysis is used to examine the relationship between two or more ratio or interval scaled predictor variables and one ratio or interval scaled criterion variable (Tull and Hawkins 1993, p. 686). The equation of a multiple regression model is written as:

$$Y = a + b_1 * X_1 + b_2 * X_2 + \dots + b_p * X_p$$

A binomial logistic regression is an extension of a multiple regression in which the dependent variable is not a continuous variable. Instead, it has only two values (Mabert et al. 2003), that is, dichotomous variables, such as the adoption of pure transaction or not in this study. The equation of a binomial logistic regression model is written as:

$$\log [\text{Prob(adopted)}/\text{Prob(not adopted)}] = b_0 + b_1 x_1 + b_2 x_2 + \dots + b_p x_p$$

### **6.5.3 *Data Interpretation***

Data interpretation is the process of making pertinent inferences from the analysed data and drawing conclusions concerning their meaning and implications for a research study (Moon 2001; Zikmund 2000). The details of the implications behind the findings are presented in the next two chapters (Chapters 7 and 8).

## **6.6 Ethical Considerations**

Consideration was given to ethical issues at all stages of the research design process. The authority to conduct research was related to the researcher's responsibility to consider the interests of the general public, the sponsors, the respondents and the research profession (Tull and Hawkins 1993, p. 65). This study followed the rules of 'informed consent' with the objectives of the research provided to the respondents on the first page of the questionnaire (see Appendix). The respondents were aware that all of data collected would be strictly confidential and for academic research only.

Ethical conduct is regarded as the responsibility of any researcher who has an obligation to act in a professional manner. That is, a researcher is expected to adhere to the purpose of the research, maintain objectivity, avoid misrepresenting the findings of the survey and shading research conclusions, and protect the rights of the respondents and sponsors (Zikmund 2000). In this study, the researcher tried to behave as consistently and professionally as possible when conducting the survey. For example, the contents of the survey were carefully checked to ensure that there was no violation of the objectives of

the research and that no demeaning or irrelevant questions were asked. The actual methods of collecting data and the findings of the data analysis have been honestly and correctly reported in this thesis, and no conclusions have been intentionally drawn for political or social purposes.

## **6.7 Chapter Summary**

This chapter provided justifications for the research design and method of this research from perspective of philosophical paradigms. The detailed procedures of the second stage of collecting the data were described and reported in terms of the questionnaire design, survey and sampling strategy, and data analysis strategy. Finally, ethical considerations pertaining to the research design were discussed. The next chapter presents the results of the data analysis.

## **CHAPTER 7** **DATA ANALYSIS AND RESULTS**

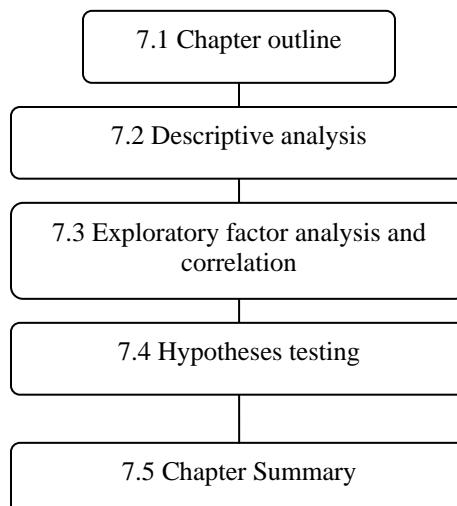
### **7.1 Chapter Outline**

The research methodology for collecting the data to test the hypothetical model was described in the previous chapter. This chapter analyses the data. The organisation of this chapter is illustrated in Figure 7.1. The descriptive analysis of the responding firms and their production sourcing practices is reviewed in section 7.2. Before testing the hypotheses, exploratory factor analysis and correlation are reported in section 7.3. The results of the test of each hypothesis are discussed in section 7.4. Concluding remarks are made in section 7.5.

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**FIGURE 7.1**  
**Outline of Chapter 7**

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Source: Developed for this thesis.

## **7.2 Descriptive Analysis**

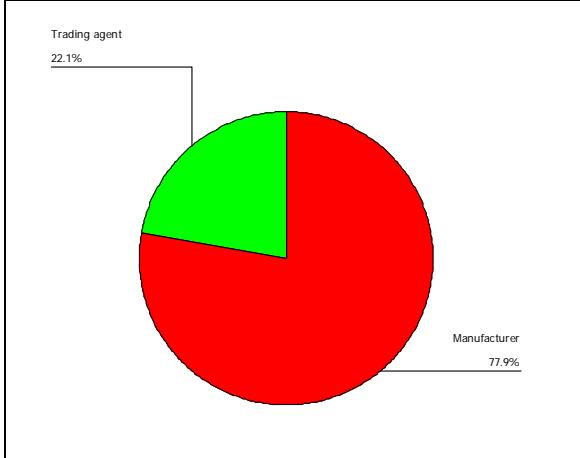
To become familiar with the data set and understand the relationships among the research variables, the first step in the process of data analysis was to attempt a descriptive and frequency analysis. In this section, the characteristics of the responding firms, production sourcing practices, perceived importance of the motivational factors (MFs), and level of satisfaction with the performance of production sourcing are reported in descriptive statistics.

### ***7.2.1 Characteristics of the Responding Firms***

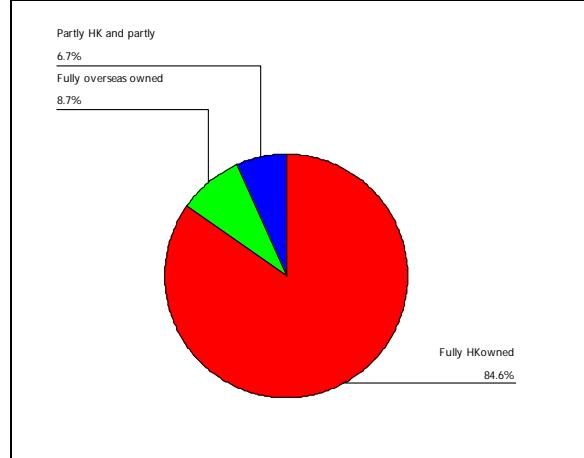
The characteristics of the respondent firms were described by industry sector, firm size, firm age and firm ownership. The details of each characteristic are provided as follows.

*Sector and ownership.* In this study, the industry was categorised into the sectors of garment manufacturing and trading. Garment manufacturers are organisations that possess production plants in the form of fully owned plants, partnerships or joint ventures. A trading agent is an organisation that does not have any production facilities, in which goods and/or services are bought and sold between firms. The results show that of the 104 responding firms, 77.9% (81 firms) were garment manufacturers and 22.1% (23 firms) were trading agents. The majority of the firms were domestically owned (84.6%, 88 firms), nine firms (8.7%) were fully overseas owned and only seven (6.7%) were jointly owned by both local and overseas investors. The classification of the sector and ownership of the responding firms is illustrated in Figures 7.2 and 7.3, respectively.

**Figure 7.2**  
**Industry Sector**

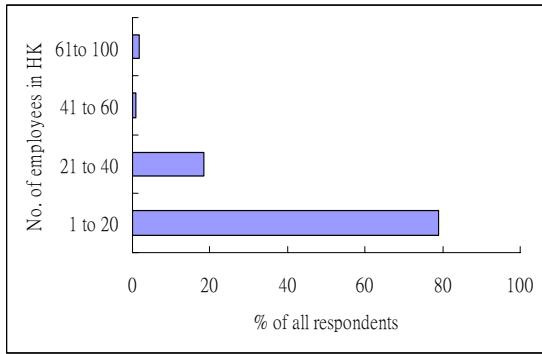


**Figure 7.3**  
**Firm's Ownership**

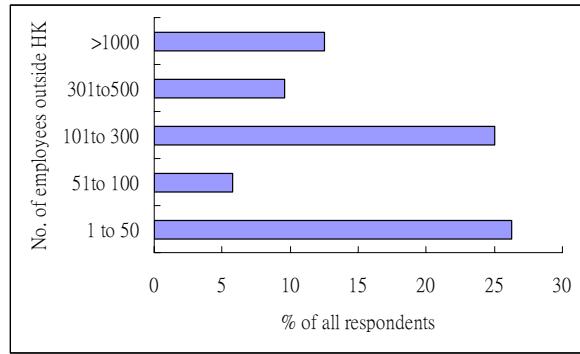


*Firm size and employment.* The measure of firm size by the number of employees, as referred to in this study, includes both staff and workers. Staff are those who are responsible for managerial, marketing, merchandising and clerical jobs, and workers are directly involved in the operational work of producing the product (Moon 2001). For this study, the determination of firm size is based on the number of employees in Hong Kong. The majority of the sample firms employed fewer than twenty people (78.9%, 82 firms), with an average of 15 employees. In contrast, the majority of the sample firms employed more than 100 people outside of Hong Kong (68.25%, 71 firms), with an average of 605 employees. Figures 7.4 and 7.5 illustrate the size of the firms in and outside of Hong Kong, respectively.

**Figure 7.4**  
**Firm size in Hong Kong**

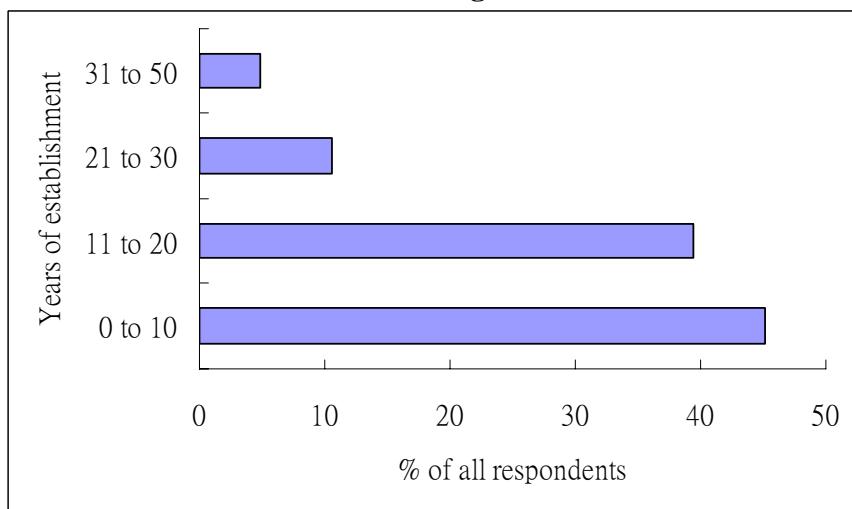


**Figure 7.5**  
**Firm size outside HK**



*Firm age.* Firm age refers to the number of years that the firm has been doing business. The respondent firms had been in operation for an average of 14 years. Most of them (84.6%, 88 firms) had been established for 1 to 20 years, while only 16 firms (15.4%) had been operating for more than 21 years. Figure 7.6 illustrates the firm age of the respondent firms in detail.

**Figure 7.6**  
**Firm Age**



### **7.2.2 Production Sourcing Practices**

The production sourcing practices regards to the adoption of production sourcing strategies and buyer-supplier relationship. In the following reports the selection of production sourcing strategies and buy-supplier relationships by the respondent firms.

*The adoption of production sourcing strategies.* No firm was purely involved in local production; all of the respondent firms had attempted offshore production (100%, 104 firms). The majority (80.8% of 104 firms) adopted pure offshore sourcing, with only 20 firms (19.2%) attempting both local and offshore production (local+offshore production). Amongst all of the firms, the offshore production activities of the majority (93.7% or 89 firms) involved only one country. The remaining 6 firms (6.3%) were involved with two countries. Therefore, none of the firms had adopted global sourcing.

As mentioned in Chapter 5, the adoption of sourcing strategies was studied in multi-dimensions and 20 sourcing strategies were identified, from the least diversified sourcing strategy (local insourcing) to the most diversified sourcing strategy (global multiple in+outsourcing). As shown in Table 7.1, no firms adopted pure local or global sourcing. Eight types of sourcing strategies were found in light of pure offshore and local+offshore. They were: SS-1 (offshore\_insourcing); SS-2 (offshore\_multiple\_outsourcing); SS-3 (offshore\_single\_in+outsourcing); SS-4 (offshore\_multiple\_in+outsourcing); SS-5 (local+offshore\_insourcing); SS-6

(local+offshore\_multiple\_outsourcing); SS-7 (local+offshore\_single\_in+outsourcing); and SS-8 (local+offshore\_multiple\_in+outsourcing).

**TABLE 7.1**  
**Sourcing Strategies Adopted**

Location of production sites	Insource-outsourcer decisions	Number of suppliers	Sourcing strategy	
			No. of firms	label
Pure local sourcing (0 firms)	Insourcing (0 firms)	/	(0 firms)	/
	Outsourcing (0 firms)	Single sourcing (0 firms)	(0 firms)	/
		Multiple sourcing (0 firms)	(0 firms)	/
	In+outsourcing (0 firms)	Single sourcing (0 firms)	(0 firms)	/
		Multiple sourcing (0 firms)	(0 firms)	/
Pure offshore sourcing (84 firms)	Insourcing (19 firms)	/	(19 firms)	SS-1
	Outsourcing (19 firms)	Single sourcing (0 firms)	(0 firms)	/
		Multiple sourcing (19 firms)	(19 firms)	SS-2
	In+outsourcing (46 firms)	Single sourcing (7 firms)	(7 firms)	SS-3
		Multiple sourcing (39 firms)	(39 firms)	SS-4
Local+offshore sourcing (20 firms)	Insourcing (3 firms)	/	(3 firms)	SS-5
	Outsourcing (4 firms)	Single sourcing (0 firms)	(0 firms)	/
		Multiple sourcing (4 firms)	(4 firms)	SS-6
	In+outsourcing (13 firms)	Single sourcing (2 firms)	(2 firms)	SS-7
		Multiple sourcing (11 firms)	(11 firms)	SS-8
Global sourcing (0 firms)	Insourcing (0 firms)	/	(0 firms)	/
	Outsourcing (0 firms)	Single sourcing (0 firms)	(0 firms)	/
		Multiple sourcing (0 firms)	(0 firms)	/
	In+outsourcing (0 firms)	Single sourcing (0 firms)	(0 firms)	/
		Multiple sourcing (0 firms)	(0 firms)	/

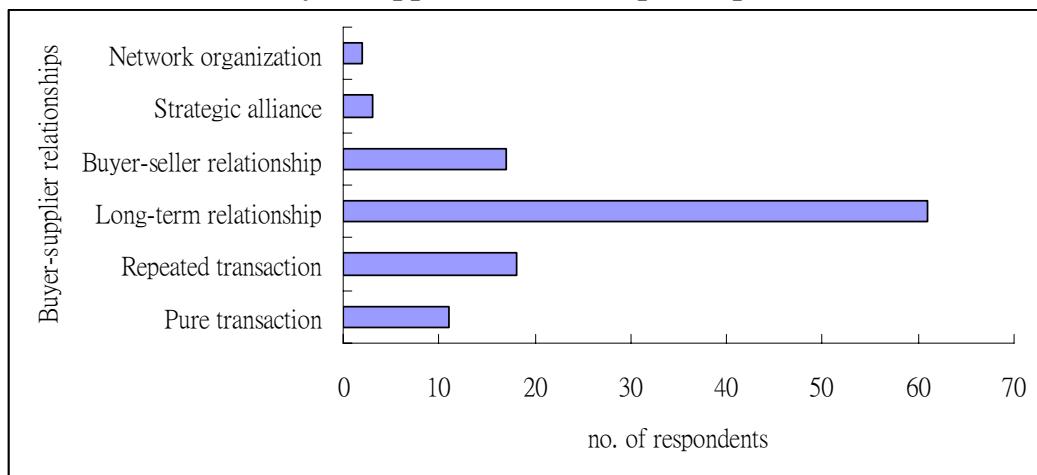
Source: Modified from Table 5.1.

Regarding pure offshore production, 19 firms (18.3%) undertook offshore insourcing (SS-1), another 19 were involved in offshore multiple outsourcing (SS-2, 18.3%), 7 adopted offshore single in+outsourcing (SS-3, 6.7%) and 39 firms were engaged in offshore multiple in+outsourcing (SS-4, 37.5%). For local+offshore production, 3 firms had adopted insourcing (SS-5, 2.9%), 4 used multiple outsourcing (SS-6, 3.8%), 2

undertook single in+outsourcing (SS-7, 1.9%), and 11 were engaged in multiple in+outsourcing (SS-8, 10.6%).

*The adoption of buyer-supplier relationships.* The buyer-supplier relationships adopted by the sample firms were pure transaction relationships (10.6%; 11 firms), repeated transaction relationships (17.3%; 18 firms), long-term relationships (58.7%; 61 firms), buyer-seller relationships (16.3%; 17 firms), strategic alliances (2.9%; 3 firms) and network organisations (1.9%; 2 firms).

**Figure 7.7**  
**Buyer-Supplier Relationships Adopted**



### 7.2.3 Perceived Importance of the Motivational Factors for Production Sourcing

The level of significance of each MF in the sourcing of production was measured on a five-point Likert scale (from 5 = extremely significant to 1 = not at all significant). Table 7.2 shows the mean scores of the perceived importance of motivational factors for production sourcing. Of these, the cost advantage of the host countries (MF3) and the availability of labour in the host countries (MF5) were perceived to be the most critical

motivational factors. The mean value of MF3 for all firms was 4.77, with a standard deviation (SD) of 0.63; and the mean value of MF5 was 4.65 (SD = 0.57). The least important of the motivational factors for production sourcing was attraction to the policies of the host government (MF8). The mean value of MF8 was 2.6 (SD = 1.19).

**TABLE 7.2**  
**Mean Score of the Perceived Importance of Each Motivational Factor for Production Sourcing**

Motivational factors for production sourcing	Mean	SD	Rank
MF3 Cost advantage of the host countries	4.77	.63	1
MF5 Availability of labour in the host countries	4.65	.57	2
MF4 Availability of materials in the host countries	3.74	1.09	3
MF1 Decline of the domestic garment production industry	3.71	1.35	4
MF15 Focus on the competitive advantages of the company	3.39	1.54	5
MF12 Immediate improvement in production performance	3.39	1.55	6
MF2 Absence of suitable domestic garment production providers	3.33	1.50	7
MF11 Corporate strategic development	3.32	1.58	8
MF9 Geographic advantages of the host countries	3.24	1.12	9
MF14 Focus on the core competencies of the company	3.15	1.52	10
MF13 Clients' requests or preferences	2.94	1.56	11
MF6 Availability of export quotas in the host countries	2.94	1.33	12
MF10 Exploit the potential market of the host countries	2.91	1.40	13
MF7 Availability of technologies in the host countries	2.90	1.29	14
MF8 Attracted by the policies of the host government	2.60	1.19	15

Note:  
(1) mean value based on a 5-point Likert scale (5=extremely significant, 1= not at all significant)  
(2) number of firms in the sample=104  
(3) SD=standard deviation

#### **7.2.4 Perceived Satisfaction with the Performance of Production Sourcing**

The perceived satisfaction with the performance of production sourcing was based on the CPIs and measured on a five-point Likert scale (from 5=extremely satisfied to 1=not at all satisfied). Table 7.3 depicts the mean scores for satisfaction with the performance of production sourcing. The result shows that achieving on-time delivery (CPI1) and better quality (CPI4) were perceived to be the most satisfactory aspects of the performance of production sourcing. The mean values of CPI1 for all firms was 3.88 (SD=0.93) and

CPI4 was 3.87 (SD=0.81). The least satisfactory of sourcing performance was the accession of worldwide technology (CPI5, mean=3.06, SD=1.07)

**TABLE 7.3**  
**Mean Score for the Perceived Satisfaction with the Performance of Production Sourcing**

Critical performance indicators		Mean	SD	Rank
CPI1	On-time delivery	3.88	.93	1
CPI4	Better quality	3.87	.81	2
CPI6	Improved relationship with customers	3.81	.97	3
CPI3	Increase in competitiveness	3.77	.86	4
CPI2	Control of costs	3.76	.85	5
CPI7	Profitability	3.72	.98	6
CPI5	Access to worldwide technology	3.06	1.07	7

Note:

(1) mean value based on a 5-point Likert scale (5=extremely satisfied, 1= not at all satisfied)  
(2) number of firms in the sample=104  
(3) SD=standard deviation

### 7.3 Exploratory Factor Analysis and Correlation

Before testing the hypotheses with multiple and logistic regressions, an exploratory factor analysis was conducted to reduce the number of variables for the motivational factors (MFs) and critical performance indicators (CPIs) in the sourcing of production. A correlation analysis was then carried out to check for multicollinearity amongst the independent variables. The details of the intermediate analysis are discussed as follows.

#### 7.3.1 Exploratory Factor Analysis

An exploratory factor analysis was conducted to reduce the number of variables for the MFs and CPIs. Regarding the factor analysis of the MFs for production sourcing, the resulting KMO value was 0.775, which was appropriate for a factor analysis. As shown

in Table 7.4, five factors were obtained by using the principle components extraction method and Varimax rotation. They were the corporate factor, the host country factor, the domestic factor, the locational factor and the cost and quota factor. These factors explained 66.64% of the total variance.

**TABLE 7.4**  
**Factor Analysis of the Motivational Factors for Production Sourcing**

Motivational factors for production sourcing	Corporate factor	Host country factor	Domestic factor	Locational factor	Cost & quota factor
MF15 Focus on the competitive advantages of the company	.910				
MF12 Immediate improvement in production performance	.882				
MF11 Corporate strategic development	.880				
MF14 Focus on the core competencies of the company	.863				
MF13 Clients' requests or preferences	.831				
MF4 Availability of materials in the host countries		.774			
MF5 Availability of labour in the host countries		.607			
MF7 Availability of technologies in the host countries		.589			
MF8 Attracted by the policies of the host government		.415			
MF1 Decline of the domestic garment production industry			.844		
MF2 Absence of suitable domestic garment production providers			.802		
MF10 Exploit the potential market of the host countries				.850	
MF9 Geographic advantages of the host countries				.678	
MF3 Cost advantage of the host countries					.752
MF6 Availability of export quotas in the host countries					.688
Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization.					

The corporate factor is related to the internal strategic development of a company such as production performance (MF12), corporate development (MF11) and clients' preferences (MF13), core competency (MF14) and competitive advantage (MF15). The host country factor includes those factors that pull by the external attractiveness of the host country such as the availability of materials (MF4), labour (MF5), technologies (MF7), and overseas government policy (MF8). The domestic factor includes those factors that push the companies to attempt production outside Hong Kong such as the decline of the domestic garment production industry (MF1) and the absence of suitable domestic garment production providers (MF2). The locational factor includes the factors that

explore other opportunities of the host country such as exploiting the potential market (MF10) and taking geographic advantage of the host country (MF9). The cost and quota factor includes those factors that related to the total cost such as taking the cost advantage of (MF3) and the availability of export quota (MF6) in the host countries. The factor scores of these five resulting motivational factors will be used as independent variables for testing the hypotheses of H2, H5 and H6, and as dependent variables for H9.

Regarding the factor analysis of the level of satisfaction with the performance of production sourcing in light of the CPIs, the resulting KMO value was 0.794, which was suitable for a factor analysis. As shown in Table 7.5, two factors were obtained by using the principle components extraction method and Varimax rotation. They were operational achievement and strategic achievement. These factors explained 64.89 % of the total variance.

**TABLE 7.5**  
**Factor Analysis of Satisfaction with the Performance of Production Sourcing**

Critical Performance Indicator for production sourcing		Operational achievement	Strategic achievement
CPI2	Control of costs	.843	
CPI1	On-time delivery	.799	
CPI3	Increase in competitiveness	.775	
CPI4	Better quality	.620	
CPI5	Access to worldwide technology		.875
CPI6	Improved relationship with customers		.762
CPI7	Profitability		.555
Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization.			

The operational achievement includes the sourcing performance that is related to production operation such as the control of costs (CPI2), on-time delivery (CPI1), increase in competitiveness (CPI3) and achieve better quality (CPI4). The strategic achievement refers to the sourcing performance that can be achieved by long-term

strategic development such as access to worldwide technology (CPI5), improved relationships with customers (CPI6) and profitability (CPI7). The factor scores of these two resulting factors will be used as dependent variables for testing the hypotheses of H1, H2, H3 and H4.

### **7.3.2 Correlation**

A second intermediate analysis, correlation, was conducted to check for multicollinearity among the independent variables. Independent variables in a research model have to be independent of each other, otherwise some variables could suppress others, and it would be difficult to obtain a significant result. The Pearson correlation coefficients of independent variables such as the firm-related characteristics of SMEs were calculated. As shown in Table 7.6, the Spearman's rho correlation coefficient was used to examine sourcing strategies and buyer-supplier relationships. Because an exploratory factor analysis had previously been conducted in which the related MFs were grouped, the test of the independent variables of the MFs was excluded from this correlation analysis.

*Firm-related characteristics of SMEs.* The results in Table 7.6 show that firm age and firm size were correlated, and that the correlation coefficient ( $r$ ) was .348 and significant ( $p$ ) at the .000 level. However, these two variables were very different. It is important to study the effect of these two variables individually on the dependent variable. Furthermore, the correlation coefficient ( $r$ ) between them was not very high ( $r > .50$ ). Thus, these two variables remain independent in the regression analysis.

**TABLE 7.6**  
**Pearson Correlation of the Firm-Related Characteristics of SMEs**

	1	2	3	4	5
1. Sector	1.000				
2. Firm age	.119	1.000			
3. Ownership	.158	.038	1.000		
4. Firm size (HK)	-.010	.348**	.074	1.000	
5. Firm size (outside HK)	.154	.005	-.216	.008	1.000

Note: \*\* Correlation is significant at the 0.01 level (2-tailed).

**TABLE 7.7**  
**Spearman's Rho Correlation of Sourcing Strategies**

	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8
SS-1 (Offshore_insource)	1.000							
SS-2 (Offshore_multiple_outsource)	-.224	1.000						
SS-3 (Offshore_single_in+outsource)	-.127	-.127	1.000					
SS-4 (Offshore_multiple_in+outsource)	-.366**	-.366**	-.208	1.000				
SS-5 (Local+offshore_insource)	-.081	-.081	-.046	-.133	1.000			
SS-6 (Local+offshore_multiple_outsoure)	-.095	-.095	-.054	-.155	-.034	1.000		
SS-7 (Local+offshore_single_in+outsource)	-.066	-.066	-.038	-.108	-.024	-.028	1.000	
SS-8 (Local+offshore_multiple in+outsourcing)	-.163	-.163	-.092	-.266**	-.059	-.069	-.048	1.000

Note: \*\* Correlation is significant at the .01 level (2-tailed).

*Sourcing strategies.* The results in Table 7.7 show that SS-4 (Offshore\_multiple\_in+outsourcing) correlated with SS-1 (offshore\_insource,  $r = -0.366, p = 0.000$ ), SS-2 (offshore\_multiple\_outsource,  $r = -0.366, p = 0.000$ ), and SS-8 (local+offshore\_multiple\_in+outsource,  $r = 0.266, p = 0.006$ ). The results indicate that there are similarities between some of the sourcing strategies. However, the nature of each sourcing strategy was unique. Furthermore, the results show that the correlation coefficients of the sourcing strategies were not very high ( $r > 0.50$ ). Thus, the eight variables of the sourcing strategies remain independent in the regression analysis.

*Buyer-supplier relationships.* The results in Table 7.8 show that strategic alliance correlated with buyer-seller partnership ( $r = 0.390$ ,  $p = 0.000$ ) and network organisation ( $r = 0.394$ ,  $p = 0.000$ ) in a moderate strength. In this study, buyer-seller partnerships, strategic alliances, and network organisations were grouped into a single category and renamed ‘network alliance partnerships’. These three relationships are similar in that the firms cooperate with mutual trust, share opportunities and have a common goal. In addition, it is more persuasive to analyse the data using a bigger group. Moreover, very few firms had adopted buyer-seller partnerships (17 firms), strategic alliances (3 firms) or network organisations (2 firms). Hence, they were pooled to form a bigger group. The problem of multicollinearity was totally excluded.

**TABLE 7.8**  
**Spearman's Rho Correlation of Buyer-Supplier Relationships**

	1	2	3	4	5	6
1. Pure discrete transaction	1.000					
2. Repeated transaction	-.075	1.000				
3. Long-term relationship	-.219	.126	1.000			
4. Buyer-seller partnership	-.067	.210	.054	1.000		
5 Strategic alliance	-.059	.225	.145	.390**	1.000	
6. Network organization	-.048	-.064	.118	.127	.394**	1.000

Note: \*\* Correlation is significant at the .01 level (2-tailed).

#### 7.4 Hypotheses Testing

The hypotheses are tested in this section by using multiple and logistic regressions. There are several data entering methods for processing multiple and logistic regressions. In this

study, the “enter method” was used for both of them. That is, the equation was built by entering all of the variables at once, whether or not they are significantly related to the dependent variables (Lind 2003).

The results of multiple regression also revealed that the variance inflation factor (VIF) values ranged from 1 to 1.215. The VIF values were much lower than the recommended cut-off threshold of 10 (Hair, Anderson, Tatham, and Black, 1992), also suggesting the absence of multicollinearity in the data. Details of each hypothesis are discussed as follows.

#### ***7.4.1 Firm-related Characteristics of SMEs Impact on the SME's Satisfaction with the Performance of Production Sourcing (H1)***

The results showed that Hypothesis One (H1), which argues that the firm-related characteristics of SMEs have an influence on satisfaction with the performance of production sourcing, was partially confirmed. Table 7.9 shows that when the production sourcing performance regressed on the firm-related characteristics, only the model regarding operational achievement was significant ( $R^2=0.113$ ,  $F=2.5$  and  $p=0.036$ ). The findings further show that only firm-related characteristics, firm age have a positive impact on satisfaction with both operational ( $B=0.024$ ,  $p=0.035$ ) and strategic ( $B=0.026$ ,  $p=0.027$ ) achievements. Whereas, firm size have a negative impact on strategic achievement ( $B=-0.013$ ,  $p=0.044$ ). This implies that the older the firm, the more satisfied it is with its operational and strategic achievements. The bigger the firm, the more dissatisfied it is with its operational achievements. This is because the older firm may

accumulate sufficient knowledge and expenditure that help a firm in achieving better performance. And the bigger firms that employ more employees may have higher expectations for efficient operational performance and so they are only satisfied with the same level of performance.

**TABLE 7.9**  
**The Impact of the Firm-Related Characteristics of SMEs on Satisfaction with the Performance of Production Sourcing**

Independent variables	Multiple regression							
	Performance satisfaction (operational achievement)				Performance satisfaction (strategic achievement)			
	B	Beta	t	Sig.	B	Beta	t	Sig.
(Constant)	-.189		-.604	.548	-.259		-.809	.420
Sector	.322	.134	1.355	.179	-.279	-.116	-1.149	.253
Firm age	0.024	.219	2.137	.035*	0.026	.235	2.246	.027*
Ownership	-.274	-.099	-.994	.323	0.094	.034	.333	.740
Firm size (HK)	-.013	-.208	-2.037	.044*	-0.091	-.001	-.014	.989
Firm size (outside HK)	0.055	.110	1.105	.272	0.065	.129	1.274	.206
<b>Model summary</b>	$F = 2.5$ Sig.= .036 R = .336 R Square = .113				$F = 1.547$ Sig.= .183 R = .270 R Square = .073			

Note: (1) Significant level: \*= $p<.10$ ; \*\*= $p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

For the model of statistic achievement, though the predictor variable of firm age has a significant p value ( $p=0.27$ ), the whole model cannot be confirmed as the low F value ( $F=1.547$ ,  $p=0.183$ ). According to the results of the models, one equation was generated to determine the predicted value of the impact of firm-related characteristics of SMEs on the operational achievement:

$$\text{OperationalAchievement}_{(\text{predicted})} = -.189 + [.322(\text{sector})] + [.024(\text{firm age})] + [-.274(\text{ownership})] + [-.013(\text{firm size in HK})] + [0.055(\text{firm size outside HK})]$$

#### **7.4.2 Perceived Importance of MFs Impacts on the SME's Satisfaction with the Performance of Production Sourcing (H2)**

The test results for Hypothesis Two (H2), which argues that the motivational factors (MFs) for production sourcing had an influence on the level of satisfaction with the performance of production sourcing, were confirmed. Table 7.10 show that the regression models to study the impact of the MFs for production sourcing on the operational and strategic achievements were significant ( $R^2$  Square=0.186 and  $p=0.001$ ; and  $R^2$  Square=0.135 and  $p=0.013$  respectively). In which, the MFs of corporate ( $B=0.190$ ,  $p=0.040$ ), domestic ( $B=-0.216$ ,  $p=0.020$ ), and cost and quota ( $B=0.318$ ,  $p=0.001$ ) had an impact on the satisfaction of operational achievement, while the MFs of host country ( $B=0.273$ ,  $p=0.005$ ) and locational ( $B=0.229$ ,  $p=0.017$ ) had an influence on the satisfaction of strategic achievement.

**TABLE 7.10**  
**The Impact of the Perceived Importance of Motivational Factors for Production Sourcing on Satisfaction with the Performance of Production Sourcing**

Independent variables \ Dependent Variables	Multiple regression							
	Performance satisfaction (operational achievement)				Performance satisfaction (strategic achievement)			
	B	Beta	t	Sig.	B	Beta	t	Sig.
(Constant)	-0.049		.000	1.000	0.018		.000	1.000
Corporate factors	.190	.190	2.080	.040*	-0.054	-.054	-.573	.568
Host country factors	-0.073	-.007	-.081	.936	.273	.273	2.903	.005**
Domestic factors	-.216	-.216	-2.372	.020*	-0.035	-.035	-.376	.707
Locational factors	0.043	.043	.476	.635	.229	.229	2.435	.017
Cost and quota factors	.318	.318	3.492	.001**	-0.063	-.063	-.674	.502
<b>Model summary</b>	$F = 4.476$ $Sig.= .001$ $R = .431$ $R^2 = .186$				$F = 3.055$ $Sig.= .013$ $R = .367$ $R^2 = .135$			

Note: (1) Significant level: \* $=p<.10$ ; \*\* $=p<.010$  (2-tailed); (2)  $n=104$ ; (3) Regression method = enter

In light of these results, firms motivated by the factors of corporate and cost and quota were more satisfied with their operational achievements. This is probably because operational achievement is related to the aspects of practical, immediate performance such as on-time delivery, control of costs, better quality, and increased competitiveness.

The objectives of these two motivational factors are also related to operational performance. Corporate factor refers to the focus on the competitive advantage of company, and immediate improvements in production performance, while cost and quota is, a factor directly related to cost. By contrast, domestic factors appear to have a negative impact on operational oriented. This result reconfirmed the view that firms with positive attitude towards positive motivations are more likely to establish a business that subsequently grows faster than firms with negative attitude (Davidsson 1989). Domestic factors include the negative elements that firms were pushed for offshore production by the decline of the domestic garment industry and the absence of suitable domestic garment production providers. This negative motivational factor explains why firms were dissatisfied with their operational achievements.

Strategic achievement, on the other hand, is related to the long-term planning of firms such as access to worldwide technology, increased profitability, and improved relationships with customers. The factors of host country and location are those that require long-term planning and development. The host country factor includes the availability of materials, labour, technologies, and overseas government policies, which required managerial planning over time. The locational factor was that the firms were pulled by the geographic advantages of and the potential market in the host country, such as the ability to establish retail stores in the host country. This kind of development also requires long-term planning, and performance satisfaction cannot be achieved in a short period of time.

According to the results in Table 7.10, two equations were generated to determine the predicted value of the impact of the perceived importance of MFs for production sourcing on operational and strategic achievement:

$$\text{OperationalAchievement}_{(\text{predicted})} = -.049 + [-.190(\text{corporate factor})] + [-.073(\text{host country factor})] + [-.216(\text{domestic factor})] + [0.043(\text{locational factor})] + [.318(\text{cost \& quota factor})]$$

$$\text{StrategicAchievement}_{(\text{predicted})} = .018 + [-.054(\text{corporate factor})] + [.273(\text{host country factor})] + [-.035(\text{domestic factor})] + [.229(\text{locational factor})] + [-.063(\text{cost \& quota factor})]$$

#### ***7.4.3 Adoption of Sourcing Strategies Impacts on the SME's Satisfaction with the Performance of Production Sourcing (H3)***

According to the regression results in Table 7.11, the hypothesis that the adoption of sourcing strategies had an influence on satisfaction with the performance of production sourcing was partially confirmed. The regression model to study the impact of the adoption of production sourcing strategies on the operational achievement ( $R^2=0.149$ ,  $F=2.409$ ,  $R=0.387$ ,  $p=0.026$ ) was significant.

The adoption of sourcing strategies of SS-5 (local+offshore\_insourcing,  $B=-1.014$ ,  $p=0.080$ ), SS-7 (local+offshore\_single\_in+outsourcing,  $B=-1.185$ ,  $p=0.090$ ), and SS-8 (local+offshore\_multiple\_in+outsourcing,  $B=0.645$ ,  $p=0.051$ ) have marginally significant impact on the satisfaction of operational achievement. Among which, SS-5 and SS-7 had a negative impact while SS-8 had positive one. That is, the adoption of SS-5 and SS-7 could not lead to the satisfaction with the operational performance of production sourcing, while SS-8 could.

**TABLE 7.11**  
**The Impact of the Adoption of Sourcing Strategies on Satisfaction with the Performance of Production Sourcing**

Independent variables	Dependent Variables		Multiple regression					
	Performance satisfaction (operational achievement)				Performance satisfaction (strategic achievement)			
	B	Beta	t	Sig.	B	Beta	t	Sig.
(Constant)	0.019		.123	.902	-.171		-1.044	.299
SS-1 (Offshore_insourcing)	-0.078	-.030	-.291	.772	.402	.156	1.408	.162
SS-2 (Offshore_multiple_outsourcing)	-.270	-.105	-1.009	.316	.211	.082	.737	.463
SS-3 (Offshore_single_in+outsourcing)	.641	.161	1.635	.105	.258	.065	.615	.540
SS-5 (Local+offshore_insourcing)	-1.014	-.170	-1.771	.080*	.172	.029	.281	.779
SS-6 (Local+offshore_multiple_outsourcing)	-.383	-.074	-.764	.447	.547	.106	1.021	.310
SS-7 (Local+offshore_single_in+outsourcing)	-1.185	-.164	-1.711	.090*	-.132	-.018	-.178	.859
SS-8 (Local+offshore_multiple_in+outsourcing)	.645	.199	1.977	.051*	.169	.052	.486	.628
<b>Model summary</b>	$F = 2.409$ Sig.= .026 R = .387 R Square = .149				$F = .410$ Sig.= .894 R = .170 R Square = .029			

Note: (1) Significant level: \*= $p<.10$ ; \*\*= $p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

This is because sourcing strategies of SS-5 and SS-7 involve fewer suppliers. By contrast, SS-8 involves multiple suppliers locally and outside Hong Kong. This implies that the more diverse in the use of suppliers, the more likely a firm is to achieve satisfaction of operational performance, such as better on-time delivery, competitiveness, and control over costs and quality. This is because diversification allows SMEs to enlarge their limited resources by drawing on different suppliers either in or outside Hong Kong. Therefore, the disadvantages of SMEs can be offset and immediate improvement in performance can be achieved.

By contrast, the results also show that there were no significant findings for the impact of the adoption of sourcing strategies on strategic achievement. This implies that the adoption of production sourcing strategies can help to achieve operational performance

rather than strategic achievement. The achievement of strategy performance, such as to get access to worldwide technology, to improve relationship with customer or to achieve profitability, may require the considerations on overall corporate strategies instead of sourcing strategy alone.

Based on the results in Table 7.11, only one equation could be generated for predicting the impact of the adoption of sourcing strategies on the satisfaction with performance in terms of operational achievement:

**Operational Achievement** <sub>(predicted)</sub>  
= .019+[-.078(SS-1)]+[-.027(SS-2)]+[.614(SS-3)]+[-1.014(SS-5)]+[-.383(SS-6)]-1.185(SS-7)]+ [.645(SS-8)]

#### ***7.4.4 Adoption of Buyer-Supplier Relationships Impacts on the SME's Satisfaction with the Performance of Production Sourcing (H4)***

The result showed that Hypothesis Four (H4), which argues that the adoption of buyer-supplier relationships has an influence on satisfaction with the performance of production sourcing, was not confirmed. In this study, the results show that the adoption of buyer-supplier relationships had no impact on the satisfaction of either operational or strategic achievement. Results in Table 7.12 show that both models of operational ( $R^2=0.089$ ,  $F=0.195$  and  $p=0.940$ ) and strategic achievements ( $R^2=0.014$ ,  $F=1.056$ ,  $p=0.202$ ) were not significant. This implies that the adoption of buyer-supplier relationships may not help to achieve either operational or strategic performance directly. In this regard, no equation was generated for predicting the impact of the adoption of

buyer-supplier relationships on the satisfaction with the performance of production sourcing.

**TABLE 7.12**  
**The Impact of the Adoption of Buyer-Supplier Relationships on Satisfaction with the Performance of Production Sourcing**

Independent variables \ Dependent Variables	Multiple regression							
	Performance satisfaction (operational achievement)				Performance satisfaction (strategic achievement)			
	B	Beta	t	Sig.	B	Beta	t	Sig.
(Constant)	-0.087	-	-.500	.618	0.072	-	.421	.674
Pure discrete transaction	-0.079	-.024	-.237	.813	-.262	-.081	-.800	.426
Repeated transaction	.111	.042	.409	.684	.106	.040	.399	.690
Long-term relationship	.119	.059	.568	.571	-.225	-.111	-1.097	.275
Network alliance partnership	0.038	.014	.141	.888	.401	.152	1.515	.133
<b>Model summary</b>	<b>F = .195</b> <b>Sig.= .940</b> <b>R = .089</b> <b>R Square = .008</b>				<b>F = 1.056</b> <b>Sig.= .382</b> <b>R = .202</b> <b>R Square = .041</b>			

Note: (1) Significant level: \*= $p<.10$ ; \*\*= $p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

#### **7.4.5 Perceived Importance of MFs Impacts on the Adoption of Sourcing Strategies (H5)**

Hypothesis Five (H5), which argues that the perceived importance of motivational factors for production sourcing had an impact on the adoption of sourcing strategies, was not completely confirmed. According to the logistic regression result in Table 7.13 and 7.14, only the logistic models of SS-1, SS-4 and SS-5 were significant. In the model of SS-1, the value of -2 Log likelihood statistics was 17.110, significant at level of 0.000, with a Chi-square of 81.784, 94.2% of the sample firms were correctly classified as SS-1 adopters or non-adopters. In the model of SS-4, the value of -2 Log likelihood statistics was 115.237, significant at level of 0.000, with a Chi-square of 22.369, 69.2% of the sample firms were correctly classified as SS-4 adopters or non-adopters. In the model of

SS-5, the value of -2 Log likelihood statistics was 10.543, significant at level of 0.005, with a Chi-square of 16.644, 98.1% of the sample firms were correctly classified as SS-5 adopters or non-adopters. The details of how motivational factors for production sourcing influence the adoption of pure offshore and local+offshore sourcing strategies are discussed as follows:

**TABLE 7.13**  
**The Impact of the Perceived Importance of Motivational Factors for Production Sourcing on the Adoption of Offshore Sourcing Strategies**

Dependent Variables Independent variables	Logistic regression – Adoption of sourcing strategies											
	SS-1 Offshore_insourcing			SS-2 Offshore_multiple_outsourcing			SS-3 (Offshore_single_in+outsourcing)			SS-4 (Offshore_multiple_in+outsourcing)		
	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.
Corporate factor	-5.696	6.543	.011*	.567	3.246	.072*	.611	1.581	.209	1.112	13.850	.000**
Host country factor	.399	.252	.615	.068	.065	.798	.289	.520	.471	-.330	1.978	.160
Domestic factor	.513	.578	.447	.005	.000	.986	-.629	2.266	.132	.142	.331	.565
Locational factor	.603	.545	.460	-.303	1.292	.256	.074	.032	.859	.284	1.477	.224
Cost and quota factor	.729	.828	.363	.007	.001	.977	-.023	.003	.957	-.040	.030	.862
(Constant)	-6.988	4.361	.037	-1.621	32.707	.000	-2.963	34.091	.000	-.705	8.280	.004
<b>Model summary</b>	<b>-2 Log likelihood = 17.110</b> NR Square = .887 Chi-square = 81.784 Sig. = .000 Hit ratio = 94.2%			<b>-2 Log likelihood = 93.834</b> NR Square = .077 Chi-square = 5.060 Sig. = .409 Hit ratio = 81.7%			<b>-2 Log likelihood = 46.615</b> NR Square = .113 Chi-square = 4.682 Sig. = .456 Hit ratio = 93.3%			<b>-2 Log likelihood = 115.237</b> NR Square = .264 Chi-square = 22.369 Sig. = .000 Hit ratio = 69.2%		

Note: (1) Significant level: \*= $p<0.10$ ; \*\*= $p<0.010$  (2-tailed); (2) n=104; (3) Regression method = enter

**TABLE 7.14**  
**The Impact of the Perceived Importance of Motivational Factors for Production Sourcing on the Adoption of Local+Offshore Sourcing Strategies**

Dependent Variables Independent variables	Logistic regression – Adoption of sourcing strategies											
	SS-5 (Local+offshore_insourcing)			SS-6 (Local+offshore_multiple_ outsourc ing)			SS-7 (Local+offshore_single_ in+outsourcing)			SS-8 (Local+offshore_multiple in+outsourcing)		
	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.
Corporate factor	-21.477	2.247	.134	1.014	1.425	.233	.874	.546	.460	.333	.825	.364
Host country factor	-3.871	2.708	.100	.201	.147	.701	.434	.173	.677	.298	.736	.391
Domestic factor	-3.703	2.480	.115	.932	1.339	.247	1.128	.750	.386	-.142	.223	.637
Locational factor	-3.114	2.655	.103	.650	1.531	.216	-.025	.001	.980	-.510	2.124	.145
Cost and quota factor	-4.429	3.041	.081*	.222	.126	.723	-.683	1.977	.160	.418	1.162	.281
(Constant)	-40.121	2.514	.113	-4.044	18.338	.000	-5.212	12.036	.001	-2.365	37.681	.000
<b>Model summary</b>	<b>-2 Log likelihood = 10.543</b> NR Square = .643 Chi-square = 16.644 Sig. = .005 Hit ratio = 98.1%			<b>-2 Log likelihood = 28.955</b> NR Square = .167 Chi-square = 4.954 Sig. = .422 Hit ratio = 96.2%			<b>-2 Log likelihood = 13.325</b> NR Square = .347 Chi-square = 6.441 Sig. = .266 Hit ratio = 99%			<b>-2 Log likelihood = 65.034</b> NR Square = .099 Chi-square = 5.182 Sig. = .394 Hit ratio = 89.4%		

Note: (1) Significant level: \*= $p<0.10$ ; \*\*= $p<0.010$  (2-tailed); (2) n=104; (3) Regression method = enter

*The adoption of pure offshore sourcing strategies.* The results of the logistic regression in Table 7.13 further show that the corporate factor had an negative impact on the adoption of SS-1 (offshore\_insourcing,  $B=-5.696$ ,  $p=0.011$ ), and positive impacts on both SS-2 (offshore\_multiple\_outsourcing,  $B=0.567$ ,  $p=0.072$ ), and SS-4 (offshore\_multiple\_in+outsourcing,  $B=1.112$ ,  $p=0.000$ ).

Production sourcing strategies of SS-2 and SS-4 emphasize multiple sources of suppliers. This implies that the adoption of a more diversified sourcing strategy was more likely to be motivated by corporate factors such as focusing on the core competencies and competitive advantages of the company. By contrast, the adoption of a less diversified sourcing strategy such as insourcing was less likely to be motivated by corporate factors.

This is because the consequences of a more diversified sourcing strategy include a large base of suppliers and involve both manufacturing and buying activities. An adoption of multiple outsourcing strategy allows SMEs to make extensive use of this strategy to deal with their limited resources. They can, therefore, enlarge their limited resources by drawing on different suppliers outside the company. They can then place a greater focus on their core competencies, such as design or marketing. Furthermore, the results also show that SMEs prefer the in+outsourcing strategy. This is because by retaining some functions in-house, SMEs are enabled to retain some control and know-how while benefiting from the expertise, investment, and scale economies of their partners (Mascarenhas 1999).

*The adoption of local+offshore sourcing strategies.* With regard to the adoption of the local+offshore sourcing strategy, the results in Table 7.14 show that all the logistic regression models were not significant except the one of SS-5 (-2 Log likelihood=10.543, NR Square=0.643, Chi-square=16.644, p=0.005, 98.1% of the sample firms were correctly classified as SS-5 adopters or non-adopters).

A further study on the results of the model show that only the motivational factors of cost and quota had a negative impact on the adoption of SS-5 (local+offshore\_insourcing, B=-4.429, p=0.081). This implies that firms that adopted SS-5 were not likely to be motivated by costs and quotas. The explanation for this was that by sourcing in-house production locally and overseas, a company can control costs and quotas internally because the company has its own production plants and quotas. If sourcing involves parties outside the company, as in the case of either outsourcing or in+outsourcing, costs and quotas can be controlled externally rather than fully by the company itself.

According to the results in Table 7.13 and 7.14, three logistic regression equations were generated to determine the predicted value of the impact of the perceived importance of the MFs for offshore production sourcing on the adoption of SS-1, SS-4 and SS-5.

**Probability of adopting SS-1=**  $\log[\text{prob(SS-1)}/\text{prob(no SS-1)}]=$   
 $-6.99+[-5.696(\text{corporate factor})]+[0.399(\text{host country factor})]+[0.513(\text{domestic factor})]+[0.603(\text{locational factor})]+[0.729(\text{cost \& quota factor})]$

**Probability of adopting (SS-4)=**  $\log[\text{prob(SS-4)}/\text{prob(no SS-4)}]=$

$-0.705+[1.112(\text{corporate factor})]+[-.330(\text{host country factor})]+[0.142(\text{domestic factor})]+[0.284(\text{locational factor})]+[-0.04(\text{cost \& quota factor})]$

**Probability of adopting (SS-5)=**  $\log[\text{prob(SS-5)}/\text{prob(no SS-5)}]=$   
 $-40.121+[-21.477(\text{corporate factor})]+[-3.871(\text{host country factor})]+[-3.703(\text{domestic factor})]+[-3.114(\text{locational factor})]+[-4.429(\text{cost \& quota factor})]$

#### **7.4.6 Perceived Importance of MFs Impacts on the Adoption of Buyer-Supplier Relationships (H6)**

The results for Hypothesis Six (H6), which show that the motivational factors for production sourcing had an influence on the adoption of buyer-supplier relationships, partially confirm the hypothesis. The results in Table 7.15 show that the logistic regression models of pure transaction ( $-2 \text{ Log likelihood}=59.175$ ,  $p=0.051$ , Chi-square=11.041, hit ratio=90.4%), long-term relationship ( $-2 \text{ Log likelihood}=101.162$ ,  $p=0.000$ , Chi-square=39.881, hit ratio=78.8%) and network alliance partnership ( $-2 \text{ Log likelihood}=79.759$ ,  $p=0.006$ , Chi-square=16.253, hit ratio=85.6%) were significant.

The results in Table 7.15 further show that the adoption of pure transaction was influenced by cost and quota factor ( $B=-0.553$ ,  $p=0.067$ ), repeated transaction was impacted by corporate factor ( $B=0.804$ ,  $p=0.026$ ), long-term relationship was affected by corporate and cost and quota factors ( $B=1.400$ ,  $p=0.000$  and  $B=0.549$ ,  $p=0.027$  respectively), network alliance partnership was influenced by both corporate, host country and cost and quota factors ( $B=1.116$ ,  $p=0.012$ ;  $B=0.540$ ,  $p=0.080$ ; and  $B=0.678$ ,  $p=0.077$  respectively).

*Pure transaction.* The results show that those firms that had adopted a pure transaction approach to buyer-supplier relationships seemed less likely to be motivated by the factor of cost and quota. In a pure transaction, each event is independent of all other dealings and there is no prior or anticipated future interaction between the buyer and supplier (Fontenot and Wilson 1997). This implies that the factor of cost and quota is not resulted in a single action of exchange; instead, a closer buyer-supplier relationship is required.

**TABLE 7.15**  
**The Impact of the Perceived Importance of Motivational Factors for Production Sourcing on the Adoption of Buyer-Supplier Relationships**

Independent variables	Dependent Variables	Logistic regression – Adoption of buyer-supplier relationships											
		Pure transaction			Repeated transaction			Long-term relationship			Network alliance partnership		
		B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.
Corporate factor	.558	1.870	.171	.804	4.982	.026*	1.400	23.231	.000**	1.116	6.375	.012*	
Host country factor	-.559	2.534	.111	-.062	.055	.815	-.057	.052	.819	.540	3.065	.080*	
Domestic factor	-.384	1.300	.254	-.086	.090	.764	.306	1.411	.235	.241	.628	.428	
Locational factor	-.516	2.028	.154	.120	.200	.655	-.165	.419	.517	.034	.015	.903	
Cost and quota factor	-.553	3.361	.067*	.445	1.581	.209	.549	4.901	.027*	.678	3.118	.077*	
(Constant)	-2.602	34.491	.000	-1.815	31.476	.000	.392	2.510	.113	-2.105	26.702	.000	
Model summary	<b>-2 Log likelihood = 59.175</b> <b>NR Square = .205</b> <b>Chi-square = 11.041</b> <b>Sig. = .051</b> <b>Hit ratio = 90.4%</b>			<b>-2 Log likelihood = 86.960</b> <b>NR Square = .136</b> <b>Chi-square = 8.872</b> <b>Sig. = .114</b> <b>Hit ratio = 81.7%</b>			<b>-2 Log likelihood = 101.162</b> <b>NR Square = .429</b> <b>Chi-square = 39.881</b> <b>Sig. = .000</b> <b>Hit ratio = 78.8%</b>			<b>-2 Log likelihood = 79.759</b> <b>NR Square = .240</b> <b>Chi-square = 16.253</b> <b>Sig. = .006</b> <b>Hit ratio = 85.6%</b>			

Note: (1) Significant level: \*= $p<.10$ ; \*\*= $p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

*Repeated transaction.* The results also show that those firms that had adopted a repeated transaction relationship placed a greater emphasis on corporate factors. Repeated transactions are the precursor to a longer-term relationship; the responding firms were trying to establish a relationship by considering the strategic corporate issues. These strategic issues refer to the strategic decision of a company to focus on its core competencies and to create competitive advantages. Once an interdependent relationship has been established, the next step will be to move to a closer relationship.

*Long-term relationship.* The results show that the motivational factors of corporate, and cost and quota had an impact on the adoption of long-term relationships. Indeed, the idea of forming a long-term relationship is conceived under an adversarial base (Frederick and Webster 1992); therefore, under a long-term relationship the corporate factors tend to be more competitive than cooperative. The results of this study showed that the majority of the responding firms (61 firms) that had adopted a competitive sourcing strategy were focusing on the competitive advantages of their companies and improving their immediate production performances. Thus, a rigid or preordained performance is expected from vendors. Under an adversarial base, price was the objective of the firms in adopting a long-term relationship; that is, the largest share of a company's business usually goes to the major vendor with the lowest price, and other vendors are given smaller shares to keep them involved in order to maintain pressure on the low-priced supplier.

*Network alliance partnership.* The results in Table 7.15 show that the motivational factors of host country, cost and quota, and corporate had impact on the adoption of network alliance relationships. The factor of host country includes the availability of materials, labour, technologies, and overseas government policies, which requires longer-term planning and involves more complicated interactions between the buyer and the supplier. Hence, the adoption of a closer relationship with a strategic vendor can help a firm to better manage its production in the host country.

The factor of cost and quota refers to the costs that are involved in production and exporting. The ultimate goal of a buyer-supplier relationship under collaborative approaches is to seek lower costs through the joint efforts of the buyer and supplier (Cannon and Homburg 2001; Kalwani and Narayandas 1995). As mentioned previously, adversarial approaches in a long-term relationship focus on driving the price down. However, collaborative approaches under network alliance partnerships promote cooperation to drive down other costs inherent in the exchange. Thus, the total costs can be lower when buyers and suppliers work closely together.

Corporate factors refer to the strategic decision of a company to focus on its core competencies and to create competitive advantages. Indeed, enhancing collaboration between buyer and supplier can contribute significantly to the strategic development of a firm (Cannon and Homburg 2001) and to overcoming the disadvantages faced by a SME, such as limited resources (Villa 1998). SMEs can benefit greatly from redirecting their resources to bolstering R&D or other vital areas. Furthermore, the development of a more cooperative relationship can help a company avoid costly investments in a just-in-time production system, and to seek high quality and specialized operations from quality suppliers.

Based on the results in Table 7.15, three equations were generated for predicting the impact of the perceived importance of MFs for production sourcing on the adoption of buyer-supplier relationships:

**Probability of adopting (pure transaction)**=  $\log[\text{prob(pure transaction)}/\text{prob(no pure transaction)}]=-2.602+[0.558(\text{corporate factor})]+[-0.559(\text{host country factor})]+[-0.384(\text{domestic factor})]+[-0.516(\text{locational factor})]+[-0.553(\text{cost \& quota factor})]$

**Probability of adopting (long-term relationship)**=  $\log[\text{prob(long-term relationship)}/\text{prob(no long-term relationship)}]=0.392+[1.4(\text{corporate factor})]+[-0.057(\text{host country factor})]+[0.306(\text{domestic factor})]+[-0.165(\text{locational factor})]+[0.549(\text{cost \& quota factor})]$

**Probability of adopt (network alliance partnership)**=  $\log[\text{prob(network alliance partnership)}/\text{prob(no network alliance partnership)}]=-2.105+[1.116(\text{corporate factor})]+[0.540(\text{host country factor})]+[0.241(\text{domestic factor})]+[0.034(\text{locational factor})]+[0.678(\text{cost \& quota factor})]$

#### **7.4.7 Firm-Related Characteristics of SMEs Impact on the Adoption of Sourcing Strategies (H7)**

The results for Hypothesis Seven (H7) partially confirm the argument that the firm-related characteristics of SMEs had an impact on the adoption of sourcing strategies.

The results in Table 7.16 and 7.17 show that the logistic regression models of SS-1 (-2 Log likelihood=81.673, p=0.004, Chi-square=17.221, hit ratio=81.7%), SS-2 (-2 Log likelihood=6.414, p=0.000, Chi-square=92.479, hit ratio=98.1%), SS-3 (-2 Log likelihood statistics=33.291, p=0.003, Chi-square=18.006, hit ratio=91.3%), SS-4 (-2 Log likelihood=111.802, p=0.000, Chi-square=25.803, hit ratio=69.2%), SS-5 (-2 Log likelihood=0.000, Chi-square=81.784, p=0.000, hit ratio=100%), SS-6 (-2 Log likelihood=0.000, Chi-square=33.9, p=0.000, hit ratio=100%)and SS-8 (-2 Log likelihood=52.455, Chi-square=17.761, p=0.003, hit ratio=90.4%) were significant.

**TABLE 7.16**  
**The Impact of the Firm-Related Characteristics of SMEs on the Adoption of Offshore Sourcing Strategies**

Independent variables	Dependent Variables	Logistic regression – Adoption of sourcing strategies											
		SS-1 (Offshore_insourcing)			SS-2 (Offshore_multiple_outsourcing)			SS-3 (Offshore+single_in+outsourcing)			SS-4 (Offshore_multiple_in+outsourcing)		
		B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.
Sector		9.106	.078	.780	-19.516	.032	.859	11.012	.052	.819	2.961	7.785	.005**
Firm age		-.033	.722	.395	-.260	1.815	.178	-.131	1.827	.176	.033	1.133	.287
Ownership		1.352	1.424	.233	-2.265	.199	.656	-3.559	9.076	.003**	.685	.874	.350
Firm size (HK)		-.047	1.893	.169	-.125	1.579	.209	.002	.003	.953	-.056	4.643	.031*
Firm size (outside HK)		.000	.100	.752	-.003	.203	.652	-.001	.911	.340	.000	.250	.617
(Constant)		-10.428	.102	.749	11.657	1.627	.202	-8.658	.032	.858	-3.334	7.016	.008
<b>Model summary</b>		<b>-2 Log likelihood = 81.673</b> NR Square = .249 Chi-square = 17.221 Sig. = .004 Hit ratio = 81.7%			<b>-2 Log likelihood = 6.414</b> NR Square = .960 Chi-square = 92.479 Sig. = .000 Hit ratio = 98.1%			<b>-2 Log likelihood = 33.291</b> NR Square = .408 Chi-square = 18.006 Sig. = .003 Hit ratio = 91.3%			<b>-2 Log likelihood = 111.802</b> NR Square = .295 Chi-square = 25.803 Sig. = .000 Hit ratio = 69.2%		

Note: (1) Significant level: \* $=p<.10$ ; \*\* $p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

**TABLE 7.17**  
**The Impact of the Firm-Related Characteristics of SMEs on the Adoption of Local+Offshore Sourcing Strategies**

Independent variables	Dependent Variables	Logistic regression – Adoption of sourcing strategies											
		SS-5 (Local+offshore_insourcing)			SS-6 (Local+offshore_multiple_outsourcing)			SS-7 (Local+offshore_single_in+outsourcing)			SS-8 (Local+offshore_multiple_in+outsourcing)		
		B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.
Sector		20.228	.000	.999	-1.073	.000	.998	8.419	.009	.923	7.593	.058	.809
Firm age		-3.315	.000	.990	2.698	.001	.970	.040	.282	.596	.075	3.779	.052*
Ownership		-30.182	.000	.999	1.541	.000	1.000	7.220	.005	.941	3.924	.475	.491
Firm size (HK)		3.737	.000	.986	2.351	.002	.962	.030	1.027	.311	-.003	.017	.896
Firm size (outside HK)		-.039	.000	.994	-.457	.003	.956	-.001	.331	.565	.001	1.936	.164
(Constant)		-88.349	.000	.992	-106.871	.000	.993	-19.966	.023	.879	-14.838	.216	.642
<b>Model summary</b>		<b>-2 Log likelihood = .000</b> NR Square = .887 Chi-square = 81.784 Sig. = .000 Hit ratio = 100%			<b>-2 Log likelihood = .000</b> NR Square = 1.000 Chi-square = 33.9 Sig. = .000 Hit ratio = 100%			<b>-2 Log likelihood = 16.930</b> NR Square = .155 Chi-square = 2.836 Sig. = .725 Hit ratio = 98.1%			<b>-2 Log likelihood = 52.455</b> NR Square = .320 Chi-square = 17.761 Sig. = .003 Hit ratio = 90.4%		

Note: (1) Significant level: \* $=p<.10$ ; \*\* $p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

*The adoption of pure offshore sourcing strategies.* The results in Table 7.16 further show that the firm-related characteristics of SMEs, such as ownership, had an impact on the adoption of SS-3 (offshore\_single\_in+outsourcing, B=-3.559 and p=0.003); and sector (B=2.961, p=0.005) and firm size in Hong Kong (B=-0.056, p=0.031) had an influence on the adoption of SS-4 (offshore\_multiple\_in+outsourcing).

In the analysis of ownership, fully Hong Kong owned firms were set to “1”, and “0” referred to firms that were fully overseas-owned or partly Hong Kong and partly overseas-owned. The results in Table 7.16 show that the ownership of firm was shown to have a negative impact on the adoption of SS-3. The findings indicate that the firms that were fully Hong Kong owned were less likely to adopt SS-3. This is because locally owned clothing firms are very experienced in offshore production. As mentioned in Chapter 2, since the 1960s, they have shifted their production to other countries to seek low-cost production and to evade export quota restrictions. Therefore, with the accumulation of such sourcing experiences, locally owned clothing firms do not prefer to source production from a single source offshore.

The positive impact of sector on the adoption of SS-4 shows that garment manufacturers were more likely than trading firms to prefer the strategy of SS-4. This is simply because garment manufacturers have their own production plant so that they can attempt insourcing or a combination of both in+outsourcing with multiple suppliers, whereas trading firms do not own any production plants, and can therefore only attempt the outsourcing of their production.

The negative impact of firm size in Hong Kong on the adoption of SS-4 shows that the smaller the size of a firm in Hong Kong, the more likely it is to adopt SS-4. Indeed, small firms can make extensive use of multiple outsourcing to deal with their limited resources. In addition, in+outsourcing allows small firms to have sufficient in-house backup should

production activities outside the company fail. They can therefore enlarge their limited resources but have better control over production.

*The adoption of local+offshore sourcing strategies.* The results in Table 7.17 further show that only the firm-related characteristic of firm age was found to have a marginally significant influence on the adoption of SS-8 ( $B=0.075$ ,  $p=0.052$ ). The result shows that older firms were more likely to adopt SS-8. This is because this sourcing strategy is a highly diverse strategy, that is, a combination of all kinds of sourcing strategies. Involving both local and offshore production as well as sourcing from multiple suppliers and owning its own production plant. Indeed, this strategy has to take long period of time to develop. Only firms of a certain age and experience can adopt this kind of strategy.

Based on the findings in Table 7.16 and 7.17, three equations were generated for predicting the impact of the firm-related characteristics of SMEs on the adoption of SS-3, SS-4 and SS-8.

**Probability of adopting SS-3**=  $\log[\text{prob(SS-3)}/\text{prob(no SS-3)}]=$   
 $-8.658+[11.012(\text{sector})]+[-0.131(\text{firm age})]+[-3.559(\text{ownership})]+[-0.002(\text{firm size in HK})]+[-0.001(\text{firm size outside HK})]$

**Probability of adopting SS-4**=  $\log[\text{prob(SS-4)}/\text{prob(no S-4)}]=$   
 $-3.334+[2.961(\text{sector})]+[0.033(\text{firm age})]+[0.685(\text{ownership})]+[-0.056(\text{firm size in HK})]+[.000(\text{firm size outside HK})]$

**Probability of adopt (SS-8)**= $-14.838+[7.593(\text{sector})]+[0.075(\text{firm age})]+[3.924(\text{ownership})]+[-0.003(\text{firm size in HK})]+[ 0.001(\text{firm size outside HK})]$

#### **7.4.8 Firm-Related Characteristics of SMEs Impact on the Adoption of Buyer-Supplier Relationships (H8)**

The results show that Hypothesis Eight (H8), which argues that the firm-related characteristics of SMEs had an influence on the adoption of buyer-supplier relationships, was partially confirmed. As shown in Table 7.18, all the logistic regression models were not significant. However, the results show that firm-related characteristics such as ownership had a negative impact on repeated transaction relationships ( $B=-1.213$ ,  $p=0.061$ ) and network alliance partnerships ( $B=-1.497$ ,  $p=0.018$ ). Industry sector also had a negative impact on the adoption of long-term relationships ( $B=0.955$ ,  $p=0.091$ ).

**TABLE 7.18**  
**The Impact of the Firm-Related Characteristics of SMEs on the Adoption of Buyer-Supplier Relationships**

Independent variables	Dependent Variables	Logistic regression – Adoption of buyer-supplier relationships											
		Pure transaction			Repeated transaction			Long-term relationship			Network alliance partnership		
		B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.	B	Wald	Sig.
Sector		1.125	1.032	.310	.073	.011	.915	-.955	2.862	.091*	-.315	.228	.633
Firm age		.006	.021	.884	.004	.014	.905	.016	.379	.538	.009	.074	.786
Ownership		.395	.125	.724	-1.213	3.498	.061*	-.574	.806	.369	-1.497	5.598	.018*
Firm size (HK)		.003	.020	.889	.001	.001	.978	-.016	1.140	.286	-.005	.057	.811
Firm size (outside HK)		.000	.070	.791	.000	.755	.385	.000	.332	.564	.000	.652	.419
(Constant)		-3.502	6.110	.013	-.816	1.107	.293	1.531	4.287	.038	-.322	.182	.670
<b>Model summary</b>		<b>-2 Log likelihood = 68.375</b>			<b>-2 Log likelihood = 89.896</b>			<b>-2 Log likelihood = 134.528</b>			<b>-2 Log likelihood = 86.713</b>		
		NR Square = .036			NR Square = .092			NR Square = .082			NR Square = .139		
		Chi-square = 1.841			Chi-square = 5.936			Chi-square = 6.516			Chi-square = 9.119		
		Sig. = .871			Sig. = .312			Sig. = .259			Sig. = .104		
		Hit ratio = 89.4%			Hit ratio = 83.7%			Hit ratio = 57.7%			Hit ratio = 83.7%		

Note: (1) Significant level: \* $=p<.10$ ; \*\* $=p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

*Repeated transaction relationships.* The results show that fully Hong Kong owned firm were less likely to develop repeated transaction relationships and network alliance partnerships for production sourcing. A repeated transaction is defined as at least one past exchange between a buyer and supplier. It is as a precursor to a long-term relationship. As mentioned previously, fully Hong Kong owned clothing firms are very experienced in

the sourcing of production. They have already gone through this stage in forming their relationships.

*Network alliance partnerships.* The results in Table 7.18 showed that the adoption of formal strategic network alliances was not popular with the Hong Kong owned SMEs clothing firms. However, literature shows that “network alliance” has been regarded as a basic strategy that SMEs can adopt to overcome the problems related of their small size (Prattern 1991; Villa 1998). By linking up with a resourceful player(s), SMEs can share risks with alliance members and gain economies of scales. The fact that such a strategy is not popular among SMEs is because such firms are more concerned about short-term profits than long-term objectives. As suggested by the Hong Kong Trade and Industry Department (2000b), there is a need to enhance the sense of commitment and collaboration among strategic partners.

*Long-term relationships.* The results in Table 7.18 showed that industry sector had a negative impact on the adoption of long-term relationships. This indicates that garment manufacturers are less likely to adopt long-term relationships. This is because the production activities of garment manufacturers are mainly conducted in-house. The establishment of long-term or even closer relationships with their production vendors or affiliates may not be important for them. Based on the findings in Table 7.18, no logistic regression model can be developed as none of the model has a significant value.

#### ***7.4.9 Firm-Related Characteristics of SMEs Impact on the Perceived Importance of MFs (H9)***

The test results partially confirm Hypothesis Nine (H9), which argues that the firm-related characteristics of SMEs have an influence on the perceived importance of motivational factors for production sourcing. The results in Table 7.19 show that when the motivational factors for production sourcing regressed on the firm-related characteristics, only the model of corporate factor was significant ( $R^2=0.117$ ,  $F=2.590$ ,  $p=0.030$ ). The findings show that the firm-related characteristics of SMEs of both industry sector ( $B=-0.514$ ,  $p=0.033$ ) and firm size in terms of employees Hong Kong ( $B=-0.012$ ,  $p=0.065$ ) had a negative impact on the perceived importance of corporate factors, whereas firm size in terms of the number of employees outside Hong Kong had positive impact on the host country factor ( $B=0.090$ ,  $p=0.089$ ).

The negative result shows that garment manufacturers are less likely to be motivated by corporate factors. This is because they have their own production plants and can control their production easily. Therefore, a corporate factor such as improving immediate production performance may not be important for them.

The negative impact of firm size in Hong Kong on the perceived importance of corporate factors indicates that the smaller the size of the firm in Hong Kong, the more likely it is to be motivated by corporate factors. Corporate factors refer to the strategic decision of a company to focus on its core competencies and to create competitive advantages. Indeed,

a firm that is small should focus more on its strengths and the area that is vital for them. This is the key to success for a small firm (Villa 1998).

Interestingly, the results show that firm size outside Hong Kong had a positive impact on the host country factor. The findings reflect that the bigger the size of the firm outside Hong Kong, the more likely it is to be motivated by the host country factor. This is probably because the clothing industry is highly labour-intensive, and operational costs in terms of labour, rent, and utilities are high in Hong Kong. The cost of labour in Hong Kong is among the highest in the region (Hong Kong Trade and Industry Department 2000b). In addition, the image of the local clothing industry as a ‘sunset industry’ has discouraged local young people from entering it; hence, industry knowledge and accumulated experience cannot be passed on to the new generation. Consequently, firms with a bigger presence outside Hong Kong found the resources available from the host country, such as labour supplies, to be very important.

Based on the results in Table 7.19, two multiple regression equations were generated for predicting the impact of the firm-related characteristics of SMEs on the perceived importance of MFs for production sourcing.

$$\text{CorporateFactor}_{(\text{predicted})} = 0.696 + [-0.514(\text{sector})] + [-0.015(\text{firm age})] + [-0.412(\text{ownership})] + [-0.012(\text{firm size in HK})] + [0.042(\text{firm size outside HK})]$$

$$\text{HostCountryFactor}_{(\text{predicted})} = 0.019 + [-0.198(\text{sector})] + [-0.045(\text{firm age})] + [-0.197(\text{ownership})] + [-0.016(\text{firm size in HK})] + [0.09(\text{firm size outside HK})]$$

**TABLE 7.19**  
**The Impact of the Firm-Related Characteristics of SMEs on the Perceived Importance of Motivational Factors for Production Sourcing**

Depende nt Variable	Multiple regression																			
	MFs (Corporate factor)				MFs (Host country factor)				MFs (Domestic factor)				MFs (Locational factor)				MFs (Cost & quota factor)			
Independent variable	B	Beta	t	Sig.	B	Beta	t	Sig.	B	Beta	t	Sig.	B	Beta	t	Sig.	B	Beta	t	Sig.
(Constant)	.696		2.230	.028	0.019		.059	.953	-0.019		-.565	.574	-.105		-.318	.751	.109		.332	.741
Sector	-.514	-.214	-2.168	.033*	-.198	-.083	-.799	.426	-.099	-.041	-.398	.691	.157	.066	.629	.531	-.113	-.047	-.453	.651
Firm age	0.015	.136	1.335	.185	-.045	-.041	-.384	.702	-.022	-.020	-.190	.850	-.012	-.109	-.1015	.313	0.042	.038	.355	.723
Ownersh ip	-.412	-.149	-1.499	.137	.197	.071	.686	.494	.303	.110	1.051	.296	0.082	.030	.284	.777	0.029	.011	.101	.920
Firm size (HK)	-0.012	-.190	-1.867	.065*	-0.016	-.025	-.231	.818	0.040	.064	.602	.549	0.058	.092	.858	.393	-0.0899	-.142	-1.334	.185
Firm size (outside HK)	0.042	.084	.849	.398	0.090	.178	1.716	.089*	-0.040	-.079	-.761	.448	-0.0136	-.027	-.257	.798	0.0532	.106	1.016	.312
<b>Model summary</b>	<b>F = 2.590</b> <b>Sig.= .030</b> <b>R = .342</b> <b>R Square = .117</b>				<b>F = .707</b> <b>Sig.= .620</b> <b>R = .187</b> <b>R Square =.035</b>				<b>F = .565</b> <b>Sig.= .726</b> <b>R = 0167</b> <b>R Square =.028</b>				<b>F = .361</b> <b>Sig.= .874</b> <b>R = .134</b> <b>R Square =.018</b>				<b>F = .572</b> <b>Sig.= .722</b> <b>R = .168</b> <b>R Square =.028</b>			

Note: (1) Significant level: \*= $p<.10$ ; \*\*= $p<.010$  (2-tailed); (2) n=104; (3) Regression method = enter

#### **7.4.10 There is Relationship between the Adoption of Sourcing Strategies and**

#### ***Buyer-Supplier Relationships (H10)***

Spearman's Rho Correlation was used to test Hypothesis Ten (H10) that there are interrelationships between sourcing strategies and the buyer-supplier relationship was partially confirmed. The results in Table 7.20 show that SS-1 (Offshore\_insourcing) and SS-3 (local+offshore\_insourcing) were found to have a marginally significant but negative correlation with some of the buyer-supplier relationships. The correlation coefficients (r) of SS-1 between repeated transaction, long-term relationship, and network alliance partnership were -0.261 ( $p=0.027$ ), -0.563 ( $p=0.000$ ), and -0.216 ( $p=0.027$ ). For the relationship between SS-3, and long-term relationship, the correlation coefficient was -0.205 and the significance level was 0.037.

The results also show that production sourcing strategy of SS-2 (offshore\_multiple\_outsourcing,  $r=0.207$  and  $p=0.035$ ), SS-4 (offshore\_multiple\_in+outsourcing,  $r=0.195$  and  $p=0.047$ ), and SS-8 (local+offshore\_multiple\_in+outsourcing,  $r=0.225$  and  $p=0.021$ ) had a marginally significant and positive correlation with long-term relationship. The results further show that the sourcing strategies involving single insourcing of SS-1 and SS-5 have a negative relationship with the adoption of a buyer-supplier relationship; whereas the sourcing strategies of SS-2, SS-4 and SS-8 involving multiple outsourcing emphasizes the adoption of a closer relationship. This implies that the adoption of multiple outsourcing is more likely to enhance the relationship between the buyer and the supplier, while the use of single outsourcing has little bearing on this issue.

**TABLE 7.20**  
**The Interrelationships between Sourcing Strategies and Buyer-Supplier Relationships**

Buyer-supplier relationships		Pure discrete transaction	Repeated transaction	Long-term relationship	Network alliance partnership
Sourcing strategies					
SS-1 (Offshore_insourcing)		-.163	<b>-.216*</b>	<b>-.563**</b>	<b>-.216*</b>
SS-2 (Offshore_multiple_outsourcing)		-.082	-.019	<b>.195*</b>	.047
SS-3 (Offshore_single_in+outsourcing)		-.092	.181	.070	.080
SS-4 (Offshore_multiple_in+outsourcing)		<b>.250*</b>	.013	<b>.207*</b>	.118
SS-5 (Local+offshore_insourcing)		-.059	-.079	<b>-.205*</b>	-.079
SS-6 (Local+offshore_multiple_outsourcing)		-.069	.041	-.035	.041
SS-7 (Local+offshore_single_in+outsourcing)		.179	.121	-.025	-.064
SS-8 (Local+offshore_multiple_in+outsourcing)		-.017	.091	<b>.225*</b>	.008

Note: \* Correlation is significant at the .05 level (2-tailed).

\*\* Correlation is significant at the .01 level (2-tailed).

## 7.5 Chapter Summary

In this chapter, the data collected from the questionnaire survey was analyzed. Ten hypotheses were examined with the use of multiple and logistic regressions. The findings show that only one hypothesis was not supported at all while other hypotheses were either partially or fully confirmed. A discussion of the findings is provided in the following chapter.

## **CHAPTER 8** **CONCLUSIONS**

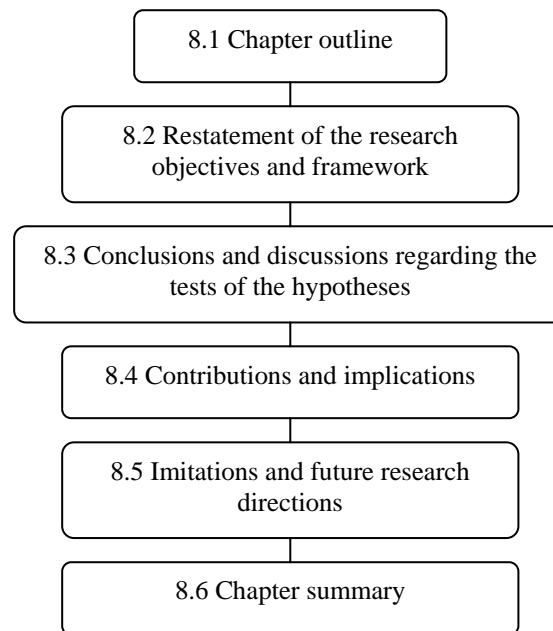
### **8.1 Chapter Outline**

This chapter brings the study to a close based on the research findings in Chapter 7. Figure 8.1 illustrates the organisation of the chapter. The research objective and framework are restated in section 8.2. The conclusions and discussion of the research findings are reviewed in section 8.3. The contributions and implications of the research are discussed in section 8.4, and the limitations and future research directions are provided in section 8.5. A chapter summary is provided in section 8.6.

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**FIGURE 8.1**  
**Outline of Chapter 8**

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Source: Developed for this thesis.

## **8.2 Restatement of the Research Objectives and Framework**

To provide a reference for the discussion, this section restates the research objectives that were introduced in Chapter 1, and the basic conceptual model and research hypotheses that were developed in Chapter 5.

### ***8.2.1 Restatement of the Research Objectives***

As stated in section 1.3, the principal aim of this thesis was to study the production sourcing of small and medium-sized clothing firms in Hong Kong in their adoption of sourcing strategies and buyer-supplier relationships. To support this aim, five specific objectives were established.

1. To provide a general overview of the evolutionary changes of the Hong Kong clothing industry and the problems of production sourcing that are encountered by the clothing firms (Chapter 2).
2. To conduct a literature review to provide a theoretical foundation for the study of production sourcing and a multiple-case study to explore the production sourcing practices of SMEs in Hong Kong (Chapters 3 and 4).
3. To conduct a questionnaire survey to investigate the interrelationships among the firm-related characteristics, the perceived importance of the motivational factors (MFs), the adopted sourcing strategies and buyer-supplier relationships, and the level of performance satisfaction for production sourcing (Chapters 5 and 6).
4. To develop a conceptual model to explain the actions of small and medium-sized clothing firms in Hong Kong in their pursuit of strategic production sourcing (Chapters 5, 6 and 7).

- To provide an assessment of the contribution and a discussion of the implications of the study, and to recommend future research directions in view of the SMEs' adoption of sourcing strategies (Chapter 8).

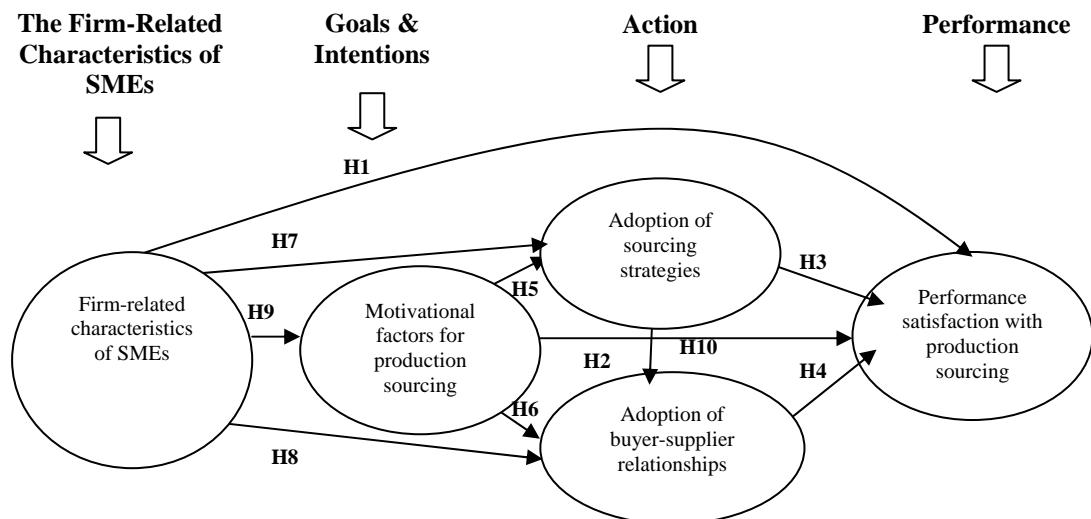
### ***8.2.2 Restatement of the Research Framework***

After the literature review in Chapter 3 and the multiple case study in Chapter 4, a conceptual model was established in Chapter 5 to explain the interrelationships of firm-related characteristics, the perceived importance of MFs, the adoption of sourcing strategies and buyer-supplier relationships, and the level of satisfaction with production sourcing performance. Figure 8.2 restates the conceptual model for this study.

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**FIGURE 8.2**  
**A Conceptual Model for this Study**

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Source: Developed for this thesis.

### ***8.2.3 Restatement of Hypotheses***

Ten hypotheses were proposed in Chapter 5 to express the interrelationships among the research variables in the model mentioned above. They are restated as follows.

- H1 Firm-related characteristics affect the SME's satisfaction with the performance of production sourcing.
- H2 The perceived importance of MFs affects the SME's satisfaction with the performance of production sourcing.
- H3 The adoption of sourcing strategies affects the SME's satisfaction with the performance of production sourcing.
- H4 The adoption of buyer-supplier relationships affects the SME's satisfaction with the performance of production sourcing.
- H5 The perceived importance of MFs affects the adoption of sourcing strategies.
- H6 The perceived importance of MFs affects the adoption of buyer-supplier relationships.
- H7 The firm-related characteristics of SMEs affect the adoption of sourcing strategies.
- H8 The firm-related characteristics of SMEs affect the adoption of buyer-supplier relationships.
- H9 The firm-related characteristics of SMEs affect the perceived importance of MFs.
- H10 There is relationship between the adoption of sourcing strategies and buyer-supplier relationships.

### **8.3 Conclusions and Discussions Regarding the Tests of the Hypotheses**

Based on the analysis of the data from the questionnaire survey in Chapter 7, this section provides conclusions on and a discussion of the tests of the research model and hypotheses.

#### ***8.3.1 Summary of the Test Result of the Ten Hypotheses***

A summary of the results of the ten hypotheses is given in Table 8.1. The summary includes a statement of the hypotheses, the testing results, and remarks on the hypotheses.

**Table 8.1**  
**Summary of the Tests of Hypotheses**

No	Hypothesis	Result	Remarks
H1	Firm-related characteristics affect the SME's satisfaction with the performance of production sourcing.	Partially supported	<ul style="list-style-type: none"> <li>The older the firm, the more satisfied it is with its operational and strategic achievement</li> <li>The bigger the firm, the more dissatisfied it is with its operational achievement</li> </ul>
H2	The perceived importance of MFs affects the SME's satisfaction with the performance of production sourcing.	Fully supported	<ul style="list-style-type: none"> <li>Corporate and cost and quota factors had a positive effect on operational achievement</li> <li>Domestic factor had a negative effect on operational achievement</li> <li>Host country and locational factors had a positive effect on strategic achievement</li> </ul>
H3	The adoption of sourcing strategies affects the SME's performance satisfaction of production sourcing.	Partially supported	<ul style="list-style-type: none"> <li>SS-5 (local+offshore_in+outsourcing) and SS-7 (local+offshore_single_in+outsourcing) had a negative effect on operational achievement</li> <li>SS-8 (local+offshore_multiple_in+outsourcing) had a positive effect on operational achievement</li> </ul>
H4	The adoption of buyer-supplier relationships affects the SME's satisfaction with the performance of production sourcing.	Not supported	<ul style="list-style-type: none"> <li>Not significant</li> </ul>
H5	The perceived importance of MFs for production sourcing affects the adoption of sourcing strategies.	Partially supported	<ul style="list-style-type: none"> <li>The corporate factor had a negative effect on SS-1 (offshore_insourcing) and a positive effect on SS-2 (offshore_multiple_outsourcing) and SS-4 (offshore_multiple_in+outsourcing)</li> <li>The cost and quota factor had a negative effect on SS-5 (local+offshore_insourcing)</li> </ul>
H6	The perceived importance of MFs for production sourcing affects the adoption of buyer-supplier relationships.	Partially supported	<ul style="list-style-type: none"> <li>The corporate factor had a positive effect on repeated transaction, long-term relationship and network alliance partnership</li> <li>The cost and quota factor had a negative effect on pure transaction and a positive effect on long-term relationship and network alliance partnership</li> <li>The host country factor had a positive effect on the network alliance partnership</li> </ul>
H7	The firm-related characteristics of SMEs affect the adoption of sourcing strategies.	Partially supported	<ul style="list-style-type: none"> <li>The smaller the firm in Hong Kong, the more likely it was to adopt SS-4 (offshore_multiple_in+outsourcing)</li> <li>Garment manufacturers were more likely than trading firms to prefer SS-4 (offshore_multiple_in+outsourcing)</li> <li>Firms that were fully Hong Kong owned were less likely to adopt SS-3 (offshore_single_in+outsourcing)</li> <li>Older firms were more likely to adopt SS-8 (local+offshore_multiple_in+outsourcing)</li> </ul>
H8	The firm-related characteristics of SMEs affect the adoption of buyer-supplier relationships.	Partially supported	<ul style="list-style-type: none"> <li>Garment manufacturers were less likely to adopt long-term relationships</li> <li>Fully Hong Kong owned firms were less likely to develop repeated transaction and network alliance partnerships</li> </ul>
H9	The firm-related characteristics of SMEs affect the perceived importance of MFs.	Partially supported	<ul style="list-style-type: none"> <li>Garment manufacturers were less likely to be motivated by the corporate factor</li> <li>The smaller the firm in Hong Kong, the more likely it was to be motivated by the corporate factor</li> <li>The bigger the firm outside of Hong Kong, the more likely it was to be motivated by the host country factor</li> </ul>
H10	There is relationship between the adoption of sourcing strategies and buyer-supplier relationships.	Partially supported	<ul style="list-style-type: none"> <li>The sourcing strategy involving single insourcing had a negative relationship with the adoption of any buyer-supplier relationship</li> <li>The sourcing strategy involving multiple outsourcing emphasizes the adoption of buyer-supplier relationships</li> </ul>

Source: Findings of this thesis.

### **8.3.2 Concluding Comments on the Test Result of Each Hypotheses**

Based on the result in Chapter 7, brief concluding comments on the ten hypotheses are provided as follows.

*Hypothesis one (H1).* H1, which stated that the firm-related characteristics of SMEs affected their satisfaction with the performance of production sourcing, was partially confirmed. The findings show that only firm age and firm size in Hong Kong affected the satisfaction with the performance of production sourcing. This indicates that the older the firm, the more satisfied it was with its operational and strategic achievements. In contrast, the bigger the firm in Hong Kong, the more dissatisfied it was with its operational achievement.

*Hypothesis two (H2).* H2, which argued that the perceived importance of motivational factors for production sourcing had an influence on satisfaction with the performance of production sourcing, was completely confirmed. The corporate, domestic, and cost and quota motivational factors affected the satisfaction with the operational achievement of production sourcing, while the motivational factors of host country and location affected strategic achievement.

*Hypothesis three (H3).* H3, which argued that the adoption of production sourcing strategies had an influence on satisfaction with the performance of production sourcing, was partially confirmed. The adoption of SS-5 (local+offshore\_insourcing) and SS-7 (local+offshore\_single\_in+outsourcing) had negative effects, while SS-8 (local+offshore\_multiple\_in+outsourcing) had a positive effect on the operational achievement of production sourcing. Sourcing strategies such as SS-5 and SS-7 involve fewer

suppliers. In contrast, SS-8 involves multiple suppliers locally and outside of Hong Kong. This implies that the more diverse the production sourcing strategies of a company, the more likely it is to achieve better on-time delivery, competitiveness, and control over costs and quality.

*Hypothesis four (H4).* H4, which argued that the adoption of buyer-supplier relationships had an influence on satisfaction with the performance of production sourcing, was not confirmed. This implies that the adoption of buyer-supplier relationships had no direct effect on satisfaction with the performance of production sourcing.

*Hypothesis five (H5).* H5, which argued that the perceived importance of motivational factors for production sourcing had an influence on the adoption of sourcing strategies, was not completely confirmed. The perceived importance of corporate factors had a negative effect on the adoption of SS-1 (offshore\_insourcing), and a positive effect on SS-2 (offshore\_multiple\_outsourcing) and SS-4 (offshore\_multiple\_in+outsourcing). As the sourcing strategies of SS-2 and SS-4 emphasize multiple sources of suppliers, this implies that the adoption of a more diversified sourcing strategy was more likely to be motivated by corporate factors such as a focus on the core competencies and competitive advantages of the company. In contrast, the adoption of a less diversified sourcing strategy such as insourcing was less likely to be motivated by corporate factors. The results also show that the cost and quota factor had a negative effect on the adoption of SS-5 (local+offshore\_insourcing). That is, firms which adopted SS-5 were less likely to be motivated by costs and quotas.

*Hypothesis six (H6).* H6, which stated that the motivational factors for production sourcing had an influence on the adoption of buyer-supplier relationships, was partially confirmed.

The results show that those firms which adopted pure transaction approaches seemed less likely to be motivated by the cost and quota factor. This implies that the cost and quota factor is not the result of a single action of exchange; instead, a closer buyer-supplier relationship is required. The perceived importance of the corporate, host country, and cost and quota motivational factors affected the adoption of a closer buyer-supplier relationship. This implies that a closer buyer-supplier relationship is needed before these motivations are relevant.

*Hypothesis seven (H7).* H7, which argued that the firm-related characteristics of SMEs had an influence on the adoption of sourcing strategies, was partially confirmed. The firm related characteristics of sector, ownership, and firm size in terms of number of employees in Hong Kong affected the adoption of sourcing strategies. The findings indicate that firms which were fully Hong Kong owned were less likely to adopt SS-3 (offshore\_single\_in+outsourcing). The results also show that garment manufacturers were more likely than trading firms to prefer the SS-4 strategy (offshore\_multiple\_in+outsourcing). In addition, the smaller the size of a firm in Hong Kong, the more likely it was to adopt the SS-4 strategy, while the older the firm the more likely it was to adopt the SS-8 strategy (local+offshore\_multiple\_in+outsourcing).

*Hypothesis eight (H8).* H8, which stated that the firm-related characteristics of SMEs had an influence on the adoption of buyer-supplier relationship, was partially confirmed. The firm-related characteristics of ownership had a negative effect on repeated transactions and network alliance partnerships. That is, fully Hong Kong owned firms were less likely to develop repeated transaction relationships and network alliance partnerships for production

sourcing. Industry sector also had a negative effect on the adoption of long-term relationships.

Garment manufacturers were less likely to adopt long-term relationships.

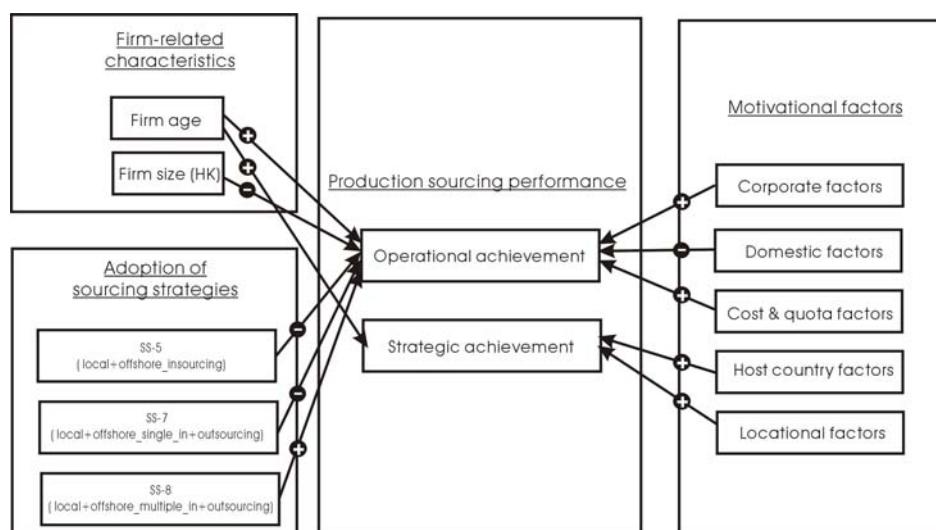
*Hypothesis nine (H9).* H9, which argued that the firm-related characterises of SMEs had an influence on the perceived importance of motivational factors for production sourcing, was partially confirmed. The firm-related characteristics of industry sector and firm size in Hong Kong had a negative effect on the perceived importance of corporate factors. That is, garment manufacturers were less likely to be motivated by corporate factors; the smaller the size of the firm in Hong Kong, the more likely it is to be motivated by corporate factors. Firm size in terms of employees outside of Hong Kong had a positive effect on the host country factor, which indicates that the bigger the size of the firm outside of Hong Kong, the more likely it was to be motivated by the host country factor.

*Hypothesis ten (H10).* H10, which argued that there is relationship between sourcing strategies and buyer-supplier relationships, was partially confirmed. The results show that more diversified sourcing strategies, such as SS-2 (offshore\_multiple\_ outsourcing), SS-4 (offshore\_multiple\_in+outsourcing), and SS-8 (local+offshore\_ multiple\_in+outsourcing) had positive correlations with long-term relationships, whereas less diversified sourcing strategies such as SS-1 (offshore\_insourcing) and SS-5 (local+offshore\_insourcing) had negative relationships with the adoption of closer relationships. The results imply that a firm that has adopted diversified sourcing strategies with multiple sources of suppliers can be strengthened by long-term relationships. In contrast, the results show that both SS-1 and SS-5, which mainly involve insourcing, do not require any closer relationship with production vendors.

### 8.3.3 The Development of New Models

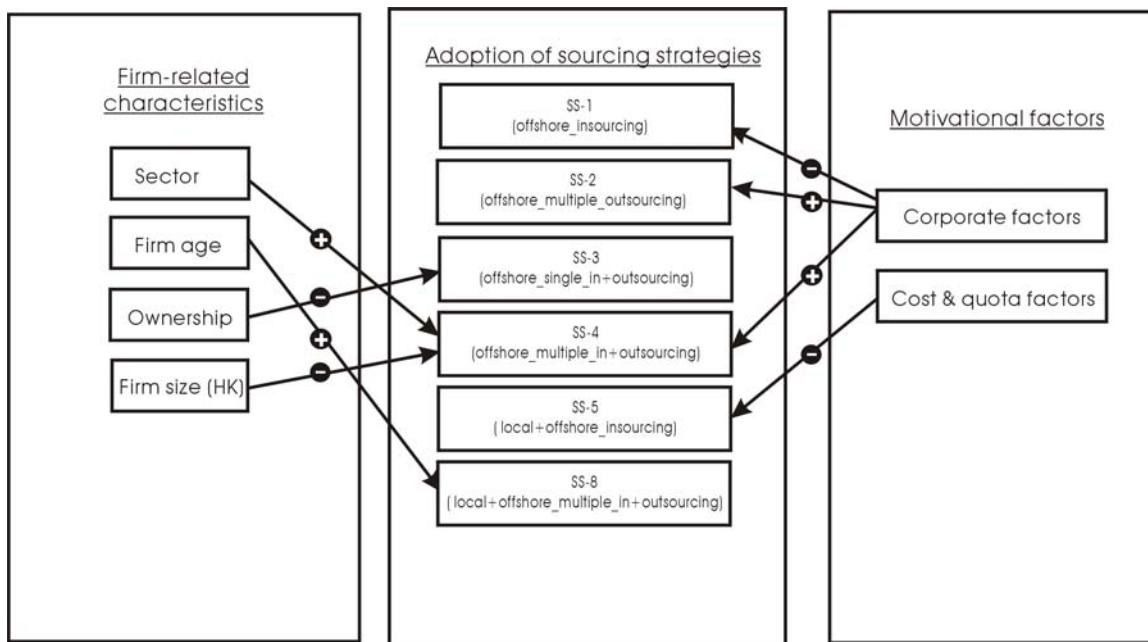
In line with the findings of this study, the conceptual model that was developed in Chapter 5 has been revised. Five sub-models were developed to explain the production sourcing practices of small and medium-sized clothing firms in Hong Kong. These five sub-models were illustrated based on the factors that influenced satisfaction with the performance of production sourcing in sections 7.4.1, 7.4.2, 7.4.3 and 7.4.4 (Figure 8.3), the adoption of sourcing strategies in sections 7.4.5 and 7.4.7 (Figure 8.4) and buyer-supplier relationships in sections 7.4.6 and 7.4.8 (Figure 8.5), the perceived importance of motivational factors for production sourcing in section 7.4.9 (Figure 8.6) and the interrelationship between buyer-supplier relationships and sourcing strategies in section 7.4.10 (Figure 8.7).

**FIGURE 8.3**  
**Satisfaction with Performance of Production Sourcing Sub-Model**



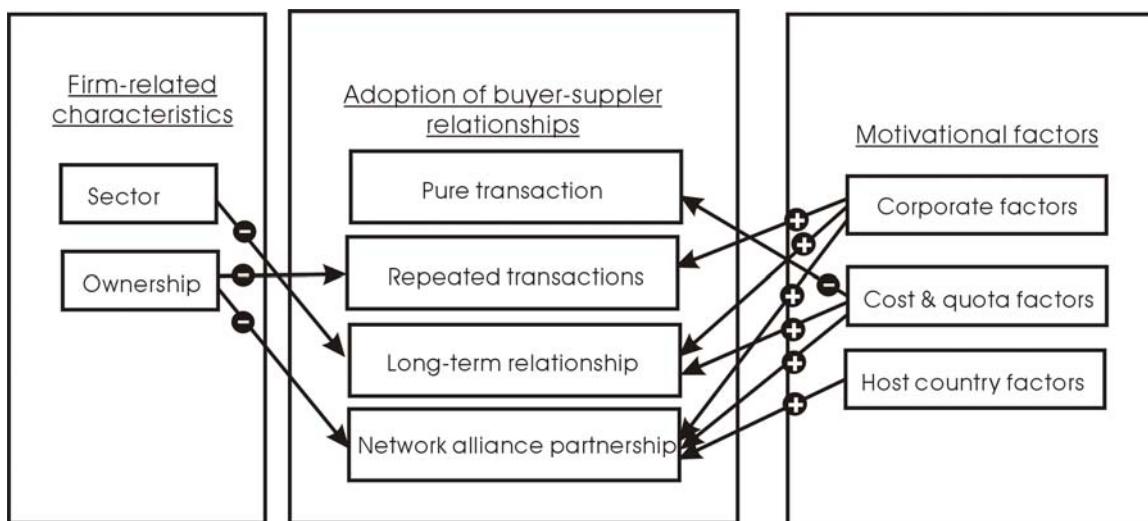
Source: Findings of this thesis.

**FIGURE 8.4**  
**Adoption of Sourcing Strategies Sub-Model**



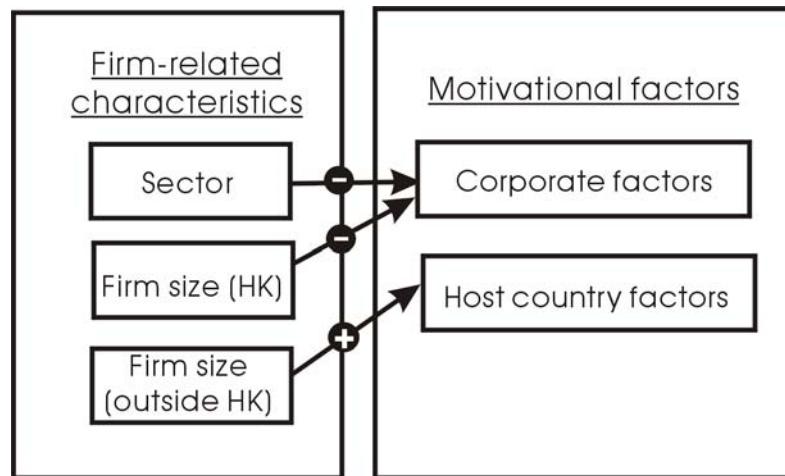
Source: Findings of this thesis.

**FIGURE 8.5**  
**Adoption of Buyer-Supplier Relationship Sub-Model**



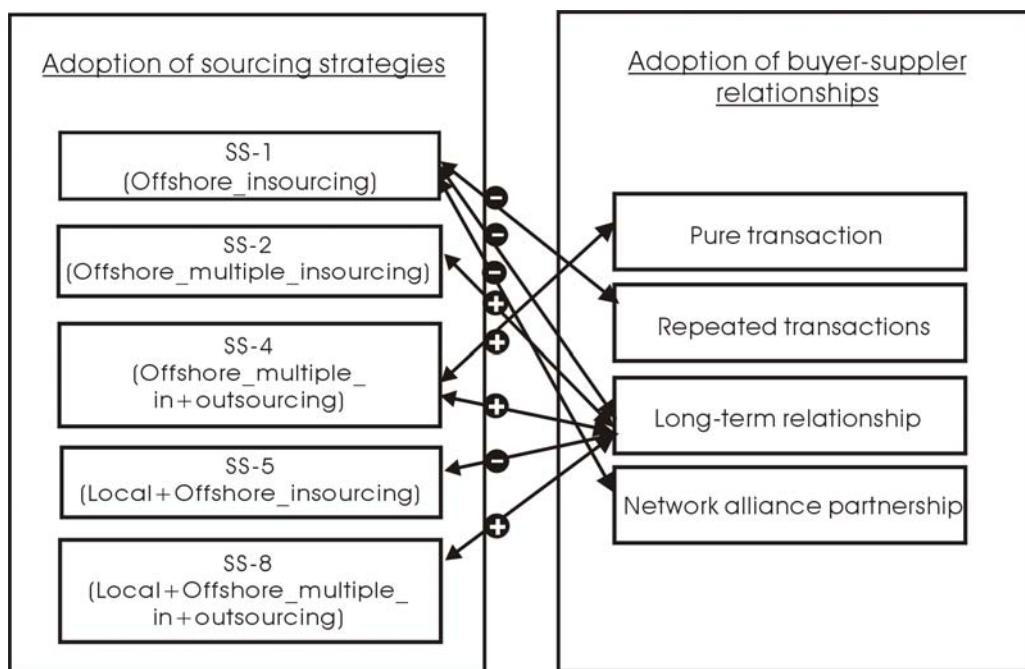
Source: Findings of this thesis

**FIGURE 8.6**  
**Perceived Importance of the Motivational Factors for Production Sourcing Sub-Model**



Source: Findings of this thesis.

**FIGURE 8.7**  
**Interrelationships between the Adoption of Sourcing Strategies and Buyer-Supplier Relationships Sub-Model**



Source: Findings of this thesis.

## **8.4 Contributions and Implications**

This section provides a general discussion of the contributions of this study to the body of knowledge in the field and guidelines that may be of interest to firms, the industry, and the government.

### ***8.4.1 Contributions to the Body of Knowledge***

This research makes contributions to existing theories and concepts about the production sourcing practices of SMEs. Too often, the large-firm model is taken as given and the small firm is assumed to be a “scaled-down” version of a large firm. However, SMEs have their own characteristics. The adoption of sourcing strategies provides a chance for SMEs to enlarge their limited resources. However, there are gaps in the literature about how SMEs attempt production sourcing. This study specifically focuses on the adoption of sourcing strategies and the buyer-supplier relationships of SMEs.

This research is based on the growth theory of small firms (Storey 1994) with the support of the goal setting theory (Locke and Latham 1990). The production sourcing practices of SMEs were elaborated upon. Eight sourcing strategies and four buyer-supplier relationships were identified. Fifteen motivational factors were reduced to 5 factors, and seven performance indicators were factored into 2 indicators. The relationships between the firm-related characteristics of SMEs, the perceived importance of motivational factors for production sourcing, the adoption of production sourcing strategies and buyer-supplier relationships, and the level of satisfaction with performance of production sourcing were investigated.

Most previous studies focused on how the decision to insource or outsource affects the adoption of buyer-supplier relationships. This study further developed production sourcing strategies with multiple-dimensions, taking into consideration production sites, number of suppliers and insource or outsource decision. The result in section 7.4.10 shows that sourcing strategies and buyer-supplier relationships are interrelated. That is, the more diversified the sourcing strategy, the more emphasis is placed on long-term supplier relationships.

Furthermore, previous studies have shown that costs have always been regarded as an important motivational factor in the adoption of pure transaction relationships (Fontenot and Wilson 1997, Frederick and Webster 1992). However, the finding in section 7.4.6 shows that this factor has a negative effect on the adoption of pure transaction relationships. This implies that the issue of cost cannot be addressed by a pure transaction relationship. A cost advantage can only be achieved by the adoption of a closer relationship with suppliers.

#### ***8.4.2 Implications for Firms, Industry and Government***

In addition to its contribution to general knowledge, this study also has implications for the management of SMEs in terms of production sourcing. First, firm size and firm age affect the growth of a small firm. This study reconfirmed that the older the firm, the more satisfied it is with its overall performance in terms of operational and strategic achievements. This implies that the management of SMEs should take time and accumulate experience in developing a production sourcing strategy with which it is satisfied. In contrast, the bigger the firm in Hong Kong, the more dissatisfied it is with its operational achievements. Indeed, operational costs in terms of labour, rent, and utilities are high in Hong Kong. It is very important to a firm in Hong Kong to pay more attention to developing an optimum firm size.

Second, the findings show that SMEs with more positive attitudes towards positive motivational factors in sourcing production are more likely to be satisfied with their sourcing performance than those with negative attitudes. This implies that the management of SMEs should pay more attention to positive motivational factors such as focusing on core business, creating competitive advantages for the company, and exploiting the market in and taking geographic advantage of the host country, rather than simply feeling threatened by negative motivational factors such as the decline of the domestic garment production industry.

Third, the results indicate that the more diverse the production sourcing strategies adopted, the more likely a firm is to be satisfied with its achievement in on-time delivery, competitiveness, and control over cost and quality. This has been further supported by the other suggestions in this research that the smaller the size of a firm in Hong Kong and/or the older the age of the firm, the more likely it is to adopt a more diversified sourcing strategy. Indeed, diversification can help SMEs to overcome their disadvantage of limited resources. Therefore, the use of multiple sources of suppliers and a combination of different kinds of sourcing strategies can help SMEs to spread their risks and achieve better production performance.

This research also has implications for the clothing industry and the government of Hong Kong. The results show that the adoption of formal strategic network alliances is not popular with SMEs in Hong Kong. According to the personal interview with the chairman of the Hong Kong Apparel Society Limited ([www.hkapparel.com.hk](http://www.hkapparel.com.hk)), a non-governmental organization that works for the benefit of clothing SMEs in Hong Kong, the society had recruited only 200 members as of September 2004. One of the objectives of this organisation

is to encourage a strategic network alliance amongst its members. This indicates that clothing firms in Hong Kong overlook the benefits of developing network alliances.

However, forming network alliances, with either strategic partners or other relevant organisations, has been seen as a basic strategy that can be adopted by SMEs to overcome the problem of their small size. Network alliances allow SMEs to link up with trading partners that possess resources of various kinds. In this way, SMEs can share risks with alliance members and gain benefits from economies of scale. Hence, there is a need to enhance the sense of commitment and collaboration amongst strategic partners or other organisations. Government and trade associations should take the responsibility of promoting connections and communications among small and medium-sized clothing firms in Hong Kong. The government should give support to trade associations that are working for small and medium-sized clothing firms.

## **8.5 Limitations and Future Research Directions**

Despite the contributions and implications of this study, it has several limitations. This section provides a critical discussion on these limitations together with recommendations on future research directions.

### ***8.5.1 Sample Size***

The initial evaluation of this study concerns the size of the sample. A smaller sample size makes a statistically significant result more difficult to achieve. In addition, small sample size means that the obtained results cannot be generalizable to all firms. To overcome these problems and be more confident in the results, a sample size of at least 50 to 200 would be

necessary (Sudman, 1976). This study obtained 104 useable samples, and although fulfilling the requirement, when comparing different type of sourcing strategies in section 7.2.2, for example with only 2 firms adopted local+offshore single in+outsourcing, the number of firms in this category is not enough to generalize the result.

### ***8.5.2 Generalization***

This is a limitation of this study by focusing on the clothing industry. Further research is needed to validate and generalize the findings to broader settings and hence, future research should examine similar research objectives across differentiated industries, for example, footwear, accessories and jewellery. For these industries, a particular attention should be paid to research design issues, that is, a large enough sample from a variety of industries should be selected.

### ***8.5.3 Data Analysis***

By using conventional statistical tools of multiple and logistic regression, this research studied the interrelationships between the motivations of firms in engaging production sourcing, their adoption of sourcing strategies and buyer-supplier relationships, and their satisfaction with the performance of production sourcing. However, the result cannot provide causal-relationship effect relatively and the latent variables have not been taken into consideration. It is recommended that another data analysis method, the structural equation model (SEM), should also be used in the future. Indeed, SEM is an advanced multivariate technique that allows the study of the cause-and-effect relationships among multiple variables. This method tests the hypotheses about the relationships among latent and observed variables by generating a set of multiple regression equations simultaneously (Hoyle 1995).

#### **8.5.4 Longitudinal Research**

This study uses a cross-sectional approach, that is, the data collected in a defined time zone. Because the motivational factors for production sourcing, the adoption of sourcing strategies and buyer-supplier relationships, and the level of satisfaction with the implications of sourcing performance evolve over time, future research should also be directed towards collecting longitudinal data. In this way, a more comprehensive picture of how SMEs adopted their production sourcing strategies and buyer-supplier relationships over time can be obtained.

#### **8.5.5 Interview Environment**

Most of the questionnaires in this research were obtained from the exhibitors during Hong Kong Fashion week. Even though eventually 84 questionnaires were obtained from the exhibitors, it subjected to 44% of unusable questionnaires. This is because the exhibitors were very busy for their business negotiations during the exhibitions, the interviews were interrupted. This implied that the environment of Hong Kong Fashion Week is not appropriate to conduct 5-10 minutes personal interview. Whereas, it is suggested that to collect the contact list during Hong Kong Fashion Week and make appointment with the respondents afterward would be more appropriate.

#### **8.5.6 Predicting Equation**

Some of the predicting equations may not truly represent the real sourcing situation. For example in section 7.4.3, the equation predicted that the operation achievement can be obtained with the adoption of sourcing strategies SS-1, SS-2, SS-3, SS-5, SS-6, SS-7 and SS-8 at the same time. However, in the clothing industry, company may adopt only with minimum one to maximum three kinds of sourcing strategies. Therefore, it is suggested that

the prediction equations of this study have to be refined and proofed by some more cases from the industry.

#### ***8.5.7 Other Variables***

Other variables that may affect production sourcing should be examined. Specifically, in evaluating satisfaction with the performance of production sourcing, seven CPIs were used to measure how firms felt with the performance of their production sourcing arrangement. In addition to these 7 CPIs, other variables such as total net asset growth, equity growth, operational income growth, value-added growth and multi-criteria growth should be taken into account (Rodríguez et al. 2003) in order to make the developed model more representative.

### **8.6 Chapter Summary**

This chapter concludes the thesis by restating the research objectives and framework, providing a general conclusion and discussion of each hypothesis, discussing the implications and contributions of the study, stating its limitations and suggesting future directions of research into the production sourcing practices of SMEs.

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## Appendix: Questionnaire

### INSTITUTE OF TEXTILES & CLOTHING THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學紡織製衣學系



#### Industrial Questionnaire Survey on Production Sourcing 生產採購問卷調查

The purpose of this survey is to investigate the motivations and strategies of production sourcing of the small and medium-sized garment firms in Hong Kong. Please provide the most suitable answer(s) for each question by putting a (✓) in the chosen box ([ ]), or filling in the data in the given space, or follow instructions to express your views on the listed statements. **All data collected are strictly confidential and will be used for academic research purpose only.**

本問卷的目的是研究香港製衣業的中小企對生產採購之動機及策略。請在適當的空格([ ])加上(✓), 或在預留空位內提供適當的資料, 或根據指示表達閣下之意見。閣下所提供的資料, 將會絕對保密, 並只會作學術研究之用。

#### A) General Information 一般資料

1) What is the nature of business of your company? 貴公司的業務性質是什麼?

- [ ] Garment manufacturer 成衣製造商 [ ] Buying office 採購公司  
[ ] Trading agent 貿易公司 [ ] Others 其他 (please specify 請述: \_\_\_\_\_)

2) How long has your company been set up for? 貴公司成立了多少年? \_\_\_\_\_ years 年

3) Which of the following category does your company belong to? 貴公司屬於哪一種類的公司?

- [ ] Fully Hong Kong owned 港資公司 [ ] Fully overseas owned 外資公司  
[ ] Partly HK and partly overseas owned 香港及海外合資公司

4) How many employees are there in your company? 貴公司有多少員工?

- a. In Hong Kong 本地僱員 Staff 職員: \_\_\_\_\_ Workers 工人: \_\_\_\_\_  
b. Outside Hong Kong 外地僱員 Staff 職員: \_\_\_\_\_ Workers 工人: \_\_\_\_\_

#### B) Production Allocation 生產分配

##### 1) Local Production 本地生產

1a) Does your company have any production operated in Hong Kong currently?  
貴公司目前有否在香港境內進行生產活動?

- [ ] Yes 有 (Share of your total production capacity 佔總產量: \_\_\_\_\_ %)  
[ ] No 沒有 (Ignore questions 1b-1c 請毋須理會問題 1b-1c)

1b) Does your company have any garment factory in Hong Kong currently? 貴公司目前是否設有製衣廠於香港?

- [ ] Yes 有 (How many 多少間? :\_\_\_\_\_) (Fully owned 是否全資擁有? : yes 是 \_\_\_\_ no 否 \_\_\_\_)  
(Share of your total local production capacity 佔本地產量的百分比: \_\_\_\_\_ %)  
[ ] No 沒有

1c) Does your company source production (all or part of) from independent affiliates\*\* in Hong Kong?  
貴公司有沒有向本地獨立聯網生產商採購生產(全部或部份生產)?

- [ ] Yes 有 (How many 多少間? :\_\_\_\_\_)  
(Share of your total local production capacity 佔本地產量的百分比: \_\_\_\_\_ %)

No 沒有

\*\*Independent affiliates refer to those companies which are not owned by your company but your company have connection with  
聯網生產商是指其他並不是由貴公司擁有，但與貴公司有聯繫的公司

## 2) Offshore Production 外地生產

2a) Does your company have any production operated outside Hong Kong currently?

貴公司目前有否在香港境外進行生產活動?

Yes 有 (Share of your total production capacity 佔總產量: \_\_\_\_\_%)

No 沒有 (Ignore 2b-2c 請毋須理會問題 2b-2c)

2b) Does your company have any garment factory outside Hong Kong currently? 貴公司目前是否設有製衣廠於外地?

Yes 有 (How many 多少間? :\_\_\_\_\_) (Location (s) 在哪裏? \_\_\_\_\_)

(Fully owned 是否全資擁有? : yes 是\_\_\_\_ no 否\_\_\_\_)

(Share of your total offshore production capacity 佔外地產量的百分比: \_\_\_\_\_%)

No 沒有

2c) Does your company source production (all or part of) from independent affiliates **outside Hong Kong**?

貴公司有沒有向海外獨立聯網生產商採購生產(全部或部份生產)?

Yes 有 (How many 多少間? :\_\_\_\_\_) (Location (s) 在哪裏? \_\_\_\_\_)

(Share of your total offshore production capacity 佔外地產量的百分比: \_\_\_\_\_%)

No 沒有

3) If you have sourced production from independent affiliates (local or overseas), please answer 3a and 3b.

如貴公司曾向獨立聯網生產商(本地或海外)採購生產, 請回答問題 3a.

3a) Your relationship(s) with these affiliate(s) is(are): 貴公司與以上獨立聯網生產商所建立的關係為:

Pure discrete transaction (single transaction)

不連續的交易 (單頭交易)

Repeated transaction (at least once in the past 12 months)

重覆交易 (在過往 12 個月內進行多過一次交易)

Long-term relationship (multi transactions with more than two years business relationship)

長期合作關係 (合作超過 2 年, 並有多次交易)

Buyer-seller partnership (both of them are interdependent and involve mutual trust)

合作伙伴 (買賣雙方建立相互依靠及信任之關係)

Strategic alliance (develop long-term strategic partnering relationship)

策略聯盟 (買賣雙方建立長遠策略性的盟友關係)

Network organization (multiple relationships with different organizations, such as partnerships, strategic alliance, etc.)

網絡組織 (與不同的機構建立多種關係, 如合作伙伴, 策略聯盟等)

Others 其他 (please specify 請述: \_\_\_\_\_)

### C) Motivations for Sourcing Production 生產的動機

If your company has ever sourced production **outside Hong Kong** and /or **outside your company**, please indicate the level of significance (with 1=not at all significant and 5= extremely significant) of the following reasons regarding these.

如貴公司曾向香港以外或/及公司以外的地方採購生產, 請指出下列採購動機其不同程度的重要性(由 5=非常重  
要至 1=非常不重要)。

Motivations of Offshore Production 外地生產之動機		Extremely significant 非常重要		Not at all significant 非常不重要	
a.	Decline of the domestic garment production industry. 本地成衣生產工業的衰退。	5	4	3	2
b.	Absence of suitable domestic garment production provider. 沒有合適的本地成衣生產商。	5	4	3	2
c.	Cost advantage in host countries. 在外地採購生產享有低成本的好處。	5	4	3	2
d.	Availability of materials in host countries. 在外地採購生產享有充足的物料供應。	5	4	3	2
e.	Availability of labor supply in host countries. 在外地採購生產享有充足的勞工供應。	5	4	3	2
f.	Availability of export quota in host countries. 在外地採購生產享有出口配額的供應。	5	4	3	2
g.	Availability of technologies in host countries. 在外地採購生產享有技術/科技的供應/支援。	5	4	3	2
h.	Attracted by host government's policies. 受到當地政府政策的吸引。	5	4	3	2
i.	Geographic advantage of the host countries. 在外地採購生產享有地理上的好處。	5	4	3	2
j.	Exploit potential market in the host countries. 在外地採購生產享有開發當地市場的機會。	5	4	3	2
k.	Corporate strategic development. 配合公司本身的發展策略。	5	4	3	2
l.	Improvement of immediate production performance. 改善公司在生產方面的即時表現。	5	4	3	2
m.	Clients' request or preference 滿足顧客的要求及選擇。	5	4	3	2
n.	Focus on the core competencies of the company 使公司能集中處理本身之核心業務。	5	4	3	2
o.	Focus on the competitive advantage of the company 使公司能集中發展本身之競爭優勢。	5	4	3	2
p.	Others 其他 (please specify 請述: _____)	5	4	3	2

#### **D) Production Sourcing Performance 生產採購之表現**

- 1) In view of the production sourcing strategy(ies) adopted, how satisfied (with 5=extremely satisfied and 1=not satisfied at all) you are with your production sourcing performance in terms of:

根據閣下採用的生產採購策略，請表達貴公司對以下各項生產採購表現的滿意程度(由 5=非常滿意至 1=非常不滿意):

Production Sourcing Performance Indicators 生產採購表現指標		Extremely satisfied 非常滿意		Not at all satisfied 非常不滿意	
a.	On-time delivery 準時落貨	5	4	3	2
b.	Control of costs 成本控制	5	4	3	2
c.	Increase of competitiveness 競爭能力之增強	5	4	3	2
d.	Better quality 良好品質	5	4	3	2
e.	Access to worldwide technology 獲取世界技術的渠道	5	4	3	2
f.	Improved relationship with customer 與顧客關係改善	5	4	3	2
g.	Profitability 盈利能力	5	4	3	2
h.	Others 其他 (please specify 請述: _____)	5	4	3	2

#### **E) Respondent Information 填卷人資料**

- 1) Name of your company 公司名稱: \_\_\_\_\_
- 2) What position do you hold in your company? 閣下在現公司擔任什麼職位?  
 Owner 老板       CEO/ managing director 總裁/行政董事       General manager 總經理  
 Departmental manager 部門經理       Others 其他 (please specify 請述: \_\_\_\_\_)
- 3) How long have you been working for your company? 閣下在現公司服務了多少年? \_\_\_\_\_ years 年

\*End of the survey 問卷完畢\*

(Please attach pages if there is any additional information. 如有附加資料請另紙填寫。)

\*Thank you very much for your support and participation 謝謝您的支持及參與\*