School of Marketing

The Effects of Power Influence on the Relationships Between Department Stores and Their Subtenants in China

Leslie Sai-chung Yip

This thesis is presented as part of the requirements for the award of the Degree of Doctor of Philosophy of the Curtin University of Technology

August 2003
To my wife, Mandy,
and my son, Georges
Abstract

The perspective that asymmetrical power relationship on vertical channel would lead to dominating partner exploitation with the use of coercive power is examined within the context of horizontal channel exchange relationship between department stores and tenant retailers.

A power structure-action-outcome framework is offered to study casual links between dependence (structural aspects of power), use of coercive and non-coercive power (action), and three aspects of outcome – economic and social satisfaction, commitment and strategic performance.

Data was collected through personal interview with 302 small, medium size retail tenants of department stores in PR China. Analysis of findings provided support to the model and the hypotheses. Results confirmed that dependence and use of power were only weakly related. The findings demonstrate the contextual influence of Chinese collectivistic culture on coercive power which involves the use of punishment or penalty. To further explore the relationship between dependence and power, investigation was carried out to examine if dependence moderates the effect of coercive power on economic satisfaction, with a positive result. On the other hand, use of non-coercive power showed positive results for economic and social satisfaction, which are positively related to commitment and strategic performance. It can be concluded that use of non-coercive power is strongly recommended for store-tenant relationship in the retail sector of China. Once again, the importance of channel context must not be ignored in the study of distribution channel issues.

This research project contributes to the channel literature by adding to the contemporary state of knowledge on the use of power in horizontal channel relationships with power asymmetry, and constructs were brought together that have not been empirically investigated within a single study. It is unique in that the model was tested in non-American setting, namely PR China.
Acknowledgements

First, I want to give my greatest thanks to my thesis supervisor, Professor B. Ramaseshan, Head of the School of Marketing, Curtin Business School. His expertise on the subject and his patient guidance helped me to overcome many challenges throughout the whole research.

Next, I would like to thank academic colleagues of my University who had provided invaluable comments on my ideas and arguments. They are Dr. Andrew W. K. Chan, Dr. Don Yao-dong Lee, Dr. Namwoon Kim and Professor Edward Snape.

Thanks also go to Dr. Sherriff T. K. Luk who provided expert advice in doing research in the Chinese Mainland, to Dr. Jae Pae, Professor David T. Wilson, Professor Saeed Samiee, Professor Peter Turnbull, and Professor Howard Davis, all of whom had contributed to the development of ideas at different stages of my research. Miss Queenie Lam was very kind to provided secretarial assistance after office hours during the preparation of the final version of the thesis.

Finally, I am grateful to my wife, Mandy and my five year-old son, Georges. Without their love, understanding and spiritual support, I would have taken twice as much the time to complete this thesis.

I also like to acknowledge the support from the Staff Development Fund provided by the Department of Business Studies of The Hong Kong Polytechnic University.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>i</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
</tbody>
</table>

## CHAPTER

1 INTRODUCTION

1.1 Focus of the thesis

1.2 Retail environments

1.3 Research objectives and research questions

1.4 Key research constructs

1.5 Research methodology

1.6 Significance of this study

1.7 Organization of the thesis

2 LITERATURE REVIEW

2.1 Interfirm governance in marketing channels

2.2 Relationship marketing within the channel context

2.3 Power and influence attempts in horizontal alliance

2.4 Summary and conclusion

3 CONCEPTUAL MODEL AND HYPOTHESES

3.1 Conceptual framework and path diagram

3.2 Construct conceptualization and hypotheses

3.3 Summary and conclusion

4 RESEARCH METHODOLOGY

4.1 Research design

4.2 Instrument development and testing

4.3 Data collection

4.4 Summary and conclusion

5 EMPIRICAL RESULTS

5.1 Descriptive statistics

5.2 Rationale for using of structural equation modeling (SEM)

5.3 The concept of SEM

5.4 Steps in SEM

5.5 Model fit assessment and test results

5.6 Model stability

5.7 Summary and conclusion
### TABLE OF CONTENTS (Continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 CONCLUSION AND DISCUSSION</td>
<td></td>
</tr>
<tr>
<td>6.1 Discussion of results</td>
<td>115</td>
</tr>
<tr>
<td>6.2 Theoretical contributions</td>
<td>121</td>
</tr>
<tr>
<td>6.3 Managerial implications</td>
<td>127</td>
</tr>
<tr>
<td>6.4 Limitations and future research</td>
<td>131</td>
</tr>
<tr>
<td>APPENDIX I</td>
<td>134</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>135</td>
</tr>
</tbody>
</table>
# List of Tables

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>A Typology of Channel Contexts</td>
</tr>
<tr>
<td>1.2</td>
<td>Classification of Retail Formats in China</td>
</tr>
<tr>
<td>3.1</td>
<td>Expected Linkages among Latent Variables</td>
</tr>
<tr>
<td>4.1</td>
<td>Latent Variables, Abbreviations and Corresponding Measure Description</td>
</tr>
<tr>
<td>5.1</td>
<td>Profiles of Retail Respondents</td>
</tr>
<tr>
<td>5.2(a)</td>
<td>Identification Rules for Structural Equations with Observed Variables Assuming No Measurement Error ((y = B_1x_1 + Ix + \zeta))</td>
</tr>
<tr>
<td>5.2(b)</td>
<td>Fit indices and 'acceptable' fit guidelines</td>
</tr>
<tr>
<td>5.3</td>
<td>CFA: Dependence, Coercive Power and Non-coercive Power</td>
</tr>
<tr>
<td>5.4</td>
<td>CFA: Economic Satisfaction and Social Satisfaction</td>
</tr>
<tr>
<td>5.5</td>
<td>CFA: Commitment and Performance</td>
</tr>
<tr>
<td>5.6</td>
<td>Measurement Model: Composite Reliability, Variance Extracted and Standardized Loading</td>
</tr>
<tr>
<td>5.7</td>
<td>PSI: Matrix Containing the Covariances between (\zeta)-Variables (Error Terms of the Latent Endogenous Variables) (\textit{(LISREL 8.20)})</td>
</tr>
<tr>
<td>5.8</td>
<td>Correlation Matrix for the Hypothesized Model (\textit{(LISREL 8.20)})</td>
</tr>
<tr>
<td>5.9(a)</td>
<td>BETA and GAMMA Matrices Showing Parameter Estimates, Standard Errors and T-Values of Endogenous and Exogenous Variables (\textit{(LISREL 8.20)})</td>
</tr>
<tr>
<td>5.9(b)</td>
<td>GAMMA matrix showing parameter estimates (<em>), standard errors (<strong>), and t-values (</strong></em>), of exogenous variables (\textit{(LISREL 8.20)})</td>
</tr>
<tr>
<td>5.10</td>
<td>Summary of Goodness-Of-Fit Measures for Structural Equation Models M-1 to M4</td>
</tr>
<tr>
<td>5.11</td>
<td>M-1 Structural Equation (\textit{(LISREL 8.20)})</td>
</tr>
</tbody>
</table>
LIST OF TABLES (continued)

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.12</td>
<td>Residuals and Modification Indices for M-4 (<em>LISREL 8.20</em>)</td>
</tr>
<tr>
<td>5.13</td>
<td>Parameter Estimates of M-4 (Both Groups)</td>
</tr>
<tr>
<td>5.14</td>
<td>Chi-square and Degrees of Freedom (Tight and Moderate Replication Strategy)</td>
</tr>
<tr>
<td>6.1</td>
<td>Summary of Results</td>
</tr>
<tr>
<td>6.2</td>
<td>Coefficient Values</td>
</tr>
<tr>
<td>FIGURE</td>
<td>Title</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>2.1</td>
<td>A Political Economy Framework for Distribution Channel Analysis</td>
</tr>
<tr>
<td>3.1</td>
<td>Path Diagram of the Model</td>
</tr>
<tr>
<td>4.1</td>
<td>Decision Process in Research Design</td>
</tr>
<tr>
<td>5.1</td>
<td>Steps in LISREL Modeling</td>
</tr>
<tr>
<td>5.2(a)</td>
<td>Path Diagram of the Model in LISREL notation</td>
</tr>
<tr>
<td>5.2(b)</td>
<td>A Just Identified Model</td>
</tr>
<tr>
<td>5.3</td>
<td>Path Diagram of M-1</td>
</tr>
<tr>
<td>5.4</td>
<td>Path Diagram of Rival Model M-2</td>
</tr>
<tr>
<td>5.5</td>
<td>Path Diagram of Rival Model 3 for Both Groups</td>
</tr>
<tr>
<td>5.6</td>
<td>Path Diagram for Rival Model M-4, Group 1: High Level of Dependence</td>
</tr>
<tr>
<td>5.7</td>
<td>Path Diagram for Rival Model M-4, Group 2: Low Level of Dependence</td>
</tr>
<tr>
<td>6.1</td>
<td>Dependence Indirectly Affects Outcome</td>
</tr>
<tr>
<td>6.2</td>
<td>Dependence Directly Affects Outcome</td>
</tr>
<tr>
<td>6.3</td>
<td>Dependence as a Moderator</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

This chapter sets the backdrop for this thesis. It introduces the focus, scope, objectives, approach and significance of this study. The first section begins with an introduction explaining the focus and theoretical background of the thesis. The next section describes the business context where this research project took place. The third section presents the research questions and research objectives of this project. The rest of the chapter completes the backdrop of the project with brief descriptions on key constructs, research methodology, significance of project, and organization of chapters. The content of this chapter is divided into seven sections.

Section 1.1 Focus of the thesis
Section 1.2 Retail environments
Section 1.3 Research questions and objectives
Section 1.4 Key research constructs
Section 1.5 Research methodology
Section 1.6 Significance of study
Section 1.7 Organization of thesis

1.1 Focus of the thesis

This project examines the use of power (also referred as “use of influence”) in the exchange relationships between department stores and their retail tenants in a developing country. This section examines the nature of the exchange relationship. It is considered that the store-tenant relationship belongs to a kind of horizontal channel relationship with a unilateral dependence structure. Research on channel relationships predicts that the powerful partner will use a coercive influence strategy in this type of relationship and one of the purposes for this project is to find out whether this occurs between the store-tenant retail partners.
1.1.1 Store-tenant relationship

To consumers, department stores present a consistent store image. However, behind this similarity lie two organizational arrangements: company-owned departments and leased departments or counters. It is a common practice among department stores to lease a portion of their sales floor to other retailers. One of the obvious advantages of such an arrangement is to bring in other retailers whose brands and merchandise complement the store merchandise mix which subsequently entice more consumers to visit the store. The formation of retail alliances organized through tenancy contract by the department store is described as: leased departments; leased counters; concessionaires, and; shop-in-shop in the retail literature (Berman and Evans 2001; Levy and Weitz 2001). Since department stores have a mixture of two types of organizational arrangement – hierarchical versus contractual, they are plural form organizations (Bradach and Eccles 1989). According to a recent empirical study (Bradach 1997), the plural form enables mutual learning to take place due to information flow between company and leased units which influence practices that shape performance. If department stores can use company-owned units and leased units to leverage strengths and ameliorate weaknesses of others, then the overall organization will be stronger than a singular operation.

In practice, leased departments pay the store a monthly rent and also a sales commission if sales revenues exceed an agreed target. The exchange relationship is governed by a tenancy contract with implicit and explicit rights and obligations. For example, it is implicit that retail tenants are part of the store and equally enjoy the store traffic and store atmosphere like any other department. Retail tenants obtain management support services such as cashier service, store promotion and advertising support. Tenants are obliged to follow policies and regulations determined by the store to ensure a consistent store image is maintained.
In the marketing literature, collaboration between two firms operating in the same level of the distribution channel is a form of horizontal channel relationship. Bucklin and Sengupta (1992) labeled this kind of working partnership between firms at the same level in the value-added chain as a 'co-marketing alliance'. In this study, the store-tenant relationship is a form of working-partnership characterized by power asymmetry due to the dependence structure of the exchange relationship (section 1.1.2).

1.1.2 Channel context

It is important from the outset to specify the channel context of our study since the context or situation has been shown to have an important effect on the nature and functioning of exchange relationships (Weitz 1981, Frazier and Rody 1991; Stern, El-Ansary, & Coughlan, 1996). Frazier and Antia (1995) have proposed a typology of channel contexts using the resource-dependency framework of Pfeffer and Salancik (1978). They used two dimensions, environmental uncertainty and channel member interdependence, to classify channel contexts into six categories (Table 1.1).

<table>
<thead>
<tr>
<th>Channel Member Interdependence</th>
<th>Low (balanced)</th>
<th>Unbalanced</th>
<th>High (balanced)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Environmental</strong></td>
<td><strong>Cell 1</strong> Market exchanges</td>
<td><strong>Cell 3</strong> Unilateral relationship</td>
<td><strong>Cell 5</strong> Long-term relationships</td>
</tr>
<tr>
<td></td>
<td>No commitment</td>
<td>One-sided commitment</td>
<td>High commitment</td>
</tr>
<tr>
<td><strong>High Uncertainty</strong></td>
<td><strong>Cell 2</strong> Repeated transactions</td>
<td><strong>Cell 4</strong> Leadership relationships</td>
<td><strong>Cell 6</strong> Bilateral relationships</td>
</tr>
<tr>
<td></td>
<td>Low commitment</td>
<td>Moderate commitment</td>
<td>Very high commitment</td>
</tr>
</tbody>
</table>

Table 1.1 A Typology of Channel Contexts

Accordingly, environmental uncertainty reflects the difficulties that face firms in making accurate predictions about the future in the channel system. Channel member interdependence reflects the magnitude and symmetry of dependence between manufacturers and intermediaries in the channel system. The channel relationship studied here (Refer Cell 3) is characterized by low to medium environmental uncertainty and it is a form of retail alliance where interdependency is unbalanced. As a plural form organization, the store manages its own retail units through hierarchical process and also the leased units owned by retail tenants through obligations accepted by the tenants and specified in the terms and conditions of the contract. In the context of our study, most of the tenants are small local retailers that have limited negotiation power relative to the store. They have to operate under the policies and rules determined by the store. Frazier and Antia (1995) classified this as a “unilateral relationship” where the dominant firm dictates channel policies. They predict that threats and punishments will be used to enforce the desired behavior of the weaker partner except in cases where the good will of the weaker member is seen to be important. The dominant firm is expected to have low commitment relative to the associated channel member who needs to demonstrate commitment to maintain the relationship. In the circumstance of a horizontal alliance, the above assumed behavior of unilateral relationship applying to the store-tenant exchange relationship deserves investigation.

1.2 Retail environment

Our study was conducted in People’s Republic of China (hereafter China), a developing country enjoying rapid economic growth for more than a decade. The country is in transition from a central planning economy to a market economy. Since the introduction of the Economic Open Door policy in 1979, the Chinese government has progressively introduced economic reform and, recently, opened the retail sector to foreign investment. This section provides a background summary of the retail sector of China. Attention is drawn to the department store, which is the focus of this study. Historically, the department store played a key role in facilitating the physical movement of consumer goods under the central
planning system. Today, department stores, under the influence and support of the government, remain a key player in retail business of China. Department stores occupy the best retail sites in cities. The availability of sales areas for leasing to 'outside' retailers is limited and subject to heavy demand, forming a 'sellers market'. These conditions enhance department stores' power in negotiation and influence with their local retail tenants. Retail tenants are relatively dependent on the stores under the current retail environment. The paragraphs that follow examine the retail environment from macro and micro perspectives.

1.2.1 Performance of the retail sector:
Since the adoption of the Economic Open Door policy in 1979, the total national retail sales of China has grown by more than 14 times, from Renminbi (Rmb) 942 billion (US$117 billion) in 1991 to Rmb 3113 billion (US$385 billion) in 1999 within twenty years (China Statistical Year Book 2000). Today over 40% of the total retail sales are generated from the 100 biggest cities. Based on the assumption that the national economy will grow at the current rate annually, McKinsey (2001) predicts that 60 urban cities will become attractive markets to foreign retailers by the end of 2005.

1.2.2 Retail Formats in China:
The Chinese government classifies retail formats into eight categories, including traditional department stores, supermarkets, general merchandise stores, convenience stores, professional stores, specialty shops, shopping centers/malls, and warehouse supermarkets/discount stores. Table 1.1 provides a detailed description for each type of retail format. The scheme was meant to facilitate screening of applications for the establishment of retail joint ventures in China.

1.2.3 Role of the department store in China

For decades the department store has served as the backbone of the retail system in China (Goldman 2001). It plays a major role in the retail network under the central planning economy. Historically, the largest stores have been assigned
<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Location</th>
<th>Mode of Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department stores</td>
<td>Central business districts, transportation hubs</td>
<td>Counter sales and self-service (open-shelf display)</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>Residential areas, transportation hubs, commercial districts</td>
<td>Self-service</td>
</tr>
<tr>
<td>General merchandise</td>
<td>Suburbs, residential areas, transportation hubs</td>
<td>Self-service</td>
</tr>
<tr>
<td>Convenience stores</td>
<td>Residential areas; along major trunk lines; near railway stations, hospitals, entertainment facilities, government departments, public institutions, enterprises</td>
<td>Mainly self-service</td>
</tr>
<tr>
<td>Professional stores</td>
<td>Central business districts, shopping streets, within department stores and shopping centers</td>
<td>Fixed prices, open shelf</td>
</tr>
<tr>
<td>Speciality stores</td>
<td>Central business districts, shopping streets, within department stores and shopping centers</td>
<td>Fixed prices, open shelf</td>
</tr>
<tr>
<td>Shopping centers</td>
<td>Business centers, transportation hubs in suburbs</td>
<td>Unified planning by project manager with shops operating independently</td>
</tr>
<tr>
<td>Warehouse-style</td>
<td>Suburbs, transportation hubs</td>
<td>Warehouse-style product display, self-service</td>
</tr>
<tr>
<td>supermarkets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.2 Classification of retail formats in China

Source: Modified based on the information given by Hong Kong Trade Development Council

prime locations in the cities by the government and they are very popular among the majority of Chinese consumers who have grown up in the local retail environment. In retail business, location has strategic importance and once made they are difficult to change. Hence “retailers with excellent locations have a
strategic advantage competitors can’t easily copy.” (Levy and Weitz 2001 p.233). Site specificity is a highly idiosyncratic resource, held by department stores and sought after by other retailers in China.

The rapid rise in household income simultaneously increased the demand for consumer goods. Since ‘the development of distribution channels is a function of the quantities of goods and services that flow in the economic system’ (Samiee 1993), the traditional distribution system under the central planning economy has to be reorganized to cope with the demand for speedy circulation of goods and services. Consequently, the distribution system has undergone several phases of change to keep pace with marketization (For details of structural changes in China’s distribution system, see Luk 1997). Before 1986, as much as 80 percent of all goods in China were distributed through various stated-owned ministerial distribution channels, today large numbers of new players operate actively in a multitude of marketing channels, either state-owned or non-state-owned. Many wholesalers and retailers of different types of ownership are competing in non-ministerial distribution systems (Luk 1998a).

As the opening of the wholesale and retail sectors will provide more opportunities to foreign competitors, the government has taken steps to protect state-owned wholesalers and retailers. In 1996, the focus of reform in the retail sector was on the development of chain stores. However, as reported by the Prime Minister, the central government would like to introduce more chains of department stores in major and medium-sized cities to support reform of the distribution system (Luk 1997).

In big cities where consumer markets are booming, consumers have become more demanding of quality and variety. Many department stores began to pursue a high-variety merchandise assortment strategy (Kahn 1998). To create that variety, stores have increased their proportion of sales floor leasing to local small and medium size independent retailers who market local brands and product lines complementary to the stores merchandise assortment. These independent
retailers form partnerships with department stores to gain access to prime locations, high customer traffic, complementary merchandise assortment, and professional management systems. The store-tenant exchange relationships are governed by contracts that normally last for two or three years. At the end of the contractual period, both partners review their relationship to decide whether to continue or to terminate. Booming retail markets coupled with department stores' control of prime locations have led to demands for lease agreements that are persistently greater than the supply. The supply of lease agreements has therefore become a sellers' market, enhancing department stores' bargaining power over retail tenants who fight for the limited resources available.

1.2.4 Performance of Foreign Retailers in China

The fast growing retail market has attracted a large number of foreign retailers to introduce a range of different retail formats such as supermarkets, hyper-markets, discount stores, wholesale-clubs, specialty stores to China. At the end of 2000, twenty eight foreign-invested retail projects were approved by the central government and two hundred seventy seven projects by local government. Today, major foreign players in China's retail sector include: Wal-Mart, Metro AG, Carrefour, Ekchor Lotus, Fenglian, Parkson, Makro, Top Supermarkets, Friendship Seiyu, Isetan, Lawson, Shanghai No.1 Yaohan, Pacific, Seibu, Jusco, Ito-Yakado, Park N Shop, Trust Mart, Sincere, and Watsons.

The market share of the retailers who have foreign interests was about 1% (US$3.5 billion) of total national retail sales in 1999. The PRC government intends to control the market shares to foreign-invested retail enterprises within 8-10% in the next 5-10 years, after accession to the WTO.

Despite the fact that many retail joint ventures are able to build up store image and market share gradually, many of them have not yet generated profits. In fact, quite a number of first movers were forced to leave the market. Major reasons accounting for their failure include working with a weak local partner, opening retail outlets at wrong locations, possessing inadequate knowledge of the
local market, being unable to adapt to the local business environment, and
pursuing an inappropriate positioning strategy.

As well as in many less developed countries, the Chinese government at
different administrative levels “can influence retailing and the distribution systems
through regulations and participation” (Samiee, 1993; p111). They can control the
entire supplies of certain products, provide financial assistance to unprofitable
retail firms in subtle forms, fix the prices for certain products, decide site locations,
and approve the formation of retail joint ventures.

1.2.5 Department store and the WTO

To prepare for admission to the WTO, the PRC government has promised
the following: Tariff reductions of 6600 industrial items will take place
immediately upon accession or be phased out within five years. On average, tariff
levels will fall to 9.4% by 2005. Import quotas for about 200 items will be
eliminated upon accession. Most restrictions on trading and distribution activities
will be progressively phased out three years later. For instance, the one which has
the most important implications to international retailers is that foreign investors
having a production base in China will be able to distribute their domestically-
made products with a Chinese partner upon accession to WTO. Therefore,
accession to the WTO will ultimately relax or remove major restrictions on
foreign investment in both retail and wholesale trade three years later, including
geographical areas, number of stores, equity structure, and operational modes.
These potential and favorable changes in the distribution business sector will
attract more foreign wholesalers and retailers to enter the China market.

Based on the Agreement signed with the American government, it is
expected that the PRC government will completely open the retail and wholesale
sector along the following path:

- All restrictions on auxiliary services (warehousing, advertising,
  packaging…and so on) will be phased out within 3-4 years. Two cities,
Zhengzhou and Wuhan, will be open immediately upon accession to WTO. Chongqing and Ningbo will be opened a year after accession. Geographic restrictions, quantitative restrictions, equity or form of establishment restrictions (except large-scale retail establishment like department stores over 20000sqm or chain stores with more than 30 stores) will all be removed.

- A year after recession, foreign retailers can operate bookstores to sell books, magazines, and newspapers. Two years after accession to the WTO, foreign retailers can set up retail outlets for the following types of businesses: pharmaceuticals, pesticides, processed petroleum.

- Being a member of the WTO, the PRC government has to remove all ownership restrictions for foreign-invested retail establishments by 2005, except the department stores with a floor area of over 20000sqm or chain stores with more than 30 outlets. All these will produce more open and transparent China retail market, providing more opportunities to international retailers.

As can be seen from the above policy, large scale department stores are the last form of retailing to be opened to foreign competition. This reflects the concerns of the government on the importance of the role of department stores in the local economy.

1.3 Research objectives and research questions

With the identification of a need to extend channel research to other countries or markets (Geyskens and Steenkamp 2000, p.27; Frazier, Gill and Kale 1989 p.66-67; Kale 1986 p.387), and the small number of empirical studies on horizontal channel relationships (Bucklin & Sengupta 1992), it is desirable to embark on a study that fills such a gap. The rapid growth and development of China’s economy also provides a good opportunity for empirical research. As the market is becoming more competitive and attractive to foreign investment, local
businesses are alert to successful managerial practices that have been reported and shared through management education in the US and Europe. Chinese business communities become more receptive and supportive of empirical business research, provided they could share the findings. As such, it provides a research environment much more favorable than a decade ago. Besides, the vast consumer market with its potential buying power has also generated numerous marketing research opportunities for its consumer and business markets. It is therefore considered that China an appropriate setting for this study.

With the predominant role of department stores in China’s retail market, while at the same time the store-tenant relationship built upon mutual interest of both partners, we are keen to examine the role of power in this kind of horizontal exchange relationship. Since power and its related constructs (e.g. dependence, satisfaction and commitment) have been well researched in the vertical channel setting, it is worthwhile to examine these constructs in a different channel context as provided by this project. It is also an intention to test the causal relationships between a number of constructs that have not been examined in a single study.

In the course of planning this study, the following research questions were raised:

1. ‘How does the more powerful (less dependent) partner in store-tenant relationship, use power to influence the behavior of the other? For example, do stores adopt a heavy-handed use of power towards their tenants?’
2. ‘What would be the impact of coercive and non-coercive influence on the outcomes of the store-tenant relationship such as satisfaction and commitment?’
3. ‘Would the casual linkages amongst dependence, power, satisfaction, commitment, and strategic performance be similar to other published findings on channel relationship?’
4. ‘How applicable are the above channel constructs, which have been well established in the Western channel research, in a developing country?’

Our research objectives are:

(1) To examine the use of power/influence in horizontal channel relationships between department stores and retail tenants.

(2) To examine the casual linkages of the channel constructs using the structure-action-outcome framework of power (Molm 1990).

(3) To examine the external validity of the channel constructs in a developing country.

(4) To draw managerial implications from the findings and recommend directions for future research.

1.4 Key research constructs

This research examines the power phenomenon that exists within the dyadic relationship between the department store and its tenants. The key research constructs of this study focus on three aspects of power – its determinants, its use and the outcome. In the context of channel relationships and in its simplified form, this relates to studying the level of dependence, the type of power/influence and its impact on the relationship outcome between the store and its tenants. Altogether, there are seven constructs. These are the determinants of power (dependence), the use of power/influence (coercive and non-coercive power), and the outcome of power use (economic satisfaction, social satisfaction, commitment and strategic performance). The conceptual underpinnings of these constructs, with the exception of strategic performance, come from Social Exchange Theory (Thibaut & Kelly 1959; Emerson 1962; Lambe, Wittmann, & Spekman 2001). Strategic performance is derived from a resource-based view of the firm (Jap 1999). The following paragraphs give brief introduction of these constructs.

**Dependence.** Marketing channels are sets of interdependent organizations that work together in the process of making a product available to the end-user
(Kumar, Scheer, and Steenkamp 1995). Dependence is of crucial importance in channel research and in particular, closely related to the study of power relationship between channel members. This applies equally to horizontal channel relationships.

**Power.** A channel member’s power is the potential for influence over the other firm’s beliefs, attitudes, and behaviors (Frazier 1999). This potential is tied to the other firm’s dependence or need to maintain the channel relationship to achieved desired goals (Frazier 1983a). Beier and Stern (1969) were among the first to apply the concept of power to the governance of business-to-business exchange. Though the current emphasis on relationship marketing tends to downplay the importance of power (Nevin 1995), evidence has suggested that firms do indeed choose to exercise power as a means to influence the behavior of exchange partners (Kiyak, Roath, and Schatzel 2001).

**Satisfaction.** Satisfaction is a popular dependent variable in studies examining channel relationship (e.g. Anderson and Narus 1990; Frazier 1983b). Channel member satisfaction is frequently defined as a positive affective state resulting from the appraisal of all aspects of a firm’s working relationship with its exchange partner (e.g. Gaski and Nevin 1985; Anderson and Narus 1984 & 1990). A recent meta-analytical study on satisfaction in marketing channel relationships indicates that satisfaction is the most popular construct in empirical channel research and an important determinant of channel member satisfaction is use of power (Geyskens, Steenkamp, and Kumar 1999). The same study also revealed that satisfaction is not a unitary construct as reported in previous studies. It has been shown that a distinction should be made between ‘economic satisfaction’ and ‘social satisfaction’.

**Commitment.** In more recent studies, commitment has become widely used by researcher in place of satisfaction as the dependent variable in channel relationship (e.g. Anderson and weitz 1989, 1992; Morgan and Hunt 1994; Geyskens, Steenkamp, and Kumar 1999). Morgan and Hunt (1994, p. 23) has
defined commitment as ‘an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely.’ The definition implies a behavioral component ‘warrant maximum effort’ and a continuance component ‘endures indefinitely’.

From a relationship exchange perspective, commitment is strongly influenced by the level of social and economics rewards received in a relationship. Partners receiving a high level of benefits from a relationship are having high level social and economic satisfaction that they view the relationship as important to maintain (Lambe, Wittmann, and Spekman 2001). Social and economic satisfaction is therefore the precondition of commitment.

**Strategic performance.** Studies on channel relationship often use satisfaction, trust and commitment as measures for relationship quality and performance (Geyskens, Steenkamp, and Kumar 1999). There has been little investigation into the strategic aspects such as competitive advantage created from an exchange relationship (Jap 1999). Since a primary motivation for firms to engage in collaborative relationship is to achieve competitive advantage, there is a need to include variables that reflect strategic outcomes of a relationship. Realized competitive advantage is used to give a proxy measure of strategic performance in this project.

**1.5 Research methodology**

This study explores the applicability of Western channel behavioral constructs in a developing economy. It adopts a cross-sectional, non-experimental research method. Non-experimental research is considered appropriate since it aims to compare research findings between two countries and external validity is important. The data is collected by survey of key informants using personal interview with the help of a structured questionnaire. The target respondents are small retailers who are entrepreneurs busily engaged in day-to-day operations and
not interested in responding to mail or telephone survey. Face-to-face interview is more suitable since it provides assistance to interviewees in completing the questionnaire and it also gives the impression of respect and concern about their business.

All items in the measurement instruments are adapted from published work since all the constructs under study are well documented in the channel relationship literature. Alpha values for the measurement items are checked to meet .7 threshold level to ensure reliability. Seven-point Likert scale is used to facilitate the application of statistical techniques in data analysis (Malhotra 1996). Two rounds of questionnaire pretesting were conducted before arriving at the final measurement instrument.

A sample size of 330 interviews was planned. This quantity was decided upon after considering the trade off between cost consideration of personal data collection method and model parsimony requirement of using structural equation modeling in data analysis.

1.6 Significance of study
This research project adds to existing knowledge on channel relationship in the following ways:

(1) It improves our knowledge of the use of influence strategies in horizontal channel relationships with dependence asymmetry.

(2) It provides empirical evidence on the performance of authority-based non-market governance by department store, which is virtually unexplored in channel literature (Heide 1994).

(3) It amalgamates constructs that have not been empirically investigated together within single study. A power structure-action-outcome framework is used to provide the causal linkages of the constructs.
(4) The path model is tested in the non-American channel context.

1.7 Organization of thesis

This chapter provides an introduction to the background and focus of this research with an introduction on the rationale, research questions, research objectives, methodology and significance. Chapter 2 provides a review of the literature that is of relevance to this study. Chapter 3 presents the conceptual model and hypotheses. Chapter 4 explains the research design, instrument development and data collection process. Chapter 5 provides the details of the empirical results obtained from structural equation modeling. Chapter 6 draws conclusions, with a discussion on the result of hypotheses testing, contribution to theory, managerial implications and future research opportunities.
Chapter 2

Literature Review

The thinking processes behind this project are guided by literature from a variety of sources. This chapter introduces the body of literature that underpins this research. As implied by the title of this thesis “The Effects of Power Influence on the Relationship Between Department Stores and Their Subtenants in China”, the research is concerned with relationship management in marketing channels with a particular focus on the exercise of power or influence strategies in dyadic relationships at the same level of the distribution channel.

Based on the above, the body of literature to be reviewed in this chapter included that dealing with distribution channel relationships, power/influence strategies and coordinating mechanisms among members of distribution channel. Since marketing is an evolving discipline (Webster 1992; Sheth and Parvatiyar 1995), many of the developments in channel and inter-firm relationship research have conceptual frameworks drawn from theoretical development in other social science disciplines.

Academic studies of marketing channels have developed since the evolvement of the marketing discipline, which grew out of economics and psychology and sociology. The growth of the discipline was motivated by a lack of interest among economists in the details of market behavior and functions of the middlemen (Bartels 1976; Sheth, Gardner & Garrett 1988). Since then, the scholarly investigation of marketing channel has evolved through stages corresponding to management strategies and practices in the industry.
Parvatiyar and Sheth (2000) reviewed the history of academic study of marketing channels in the United States, which dates back to the 1910s. These are descriptive studies with focus on the activities and functions of middlemen. Marketing thinking then was centered on the efficiency and cost improvement of marketing channels. With the advent of the marketing research in the 1950s, producers made use of research tools to improve their knowledge of end consumers. To exert influence on their consumers, producers had to obtain support from the wholesalers and the retailers in merchandising and selling activities. Subsequently, this gave rise to producer dominated distribution channels which are known as an administered vertical marketing system (McCammon & Bates 1965). The phenomenon drew marketing scholars’ interest on channel power and its use as a control and coordinating mechanism among marketing actors in distribution channels (Weitz & Jap 1995). In recent years, innovative channel management practice such as just-in-time (JIT), efficient consumer response (ECR), total quality management (TQM), and key account management helped firms to gain competitive advantage through closer cooperation in the value-added chain. The importance of forming strategic partnerships with suppliers and customers in the channel drew academic and practitioner interest in managing exchange relationships that further extended to relationship marketing (Parvatiyar & Sheth 2000).

With the accumulated knowledge of marketing channels, the following sections seek to review literature on three major topics. These include a) interfirm governance that deals with the organizational arrangement adopted by companies to coordinate and control their external relationships, b) relationship marketing that has become a dominant channel strategy pursuit by marketers who recognized that collaborative and cooperative relationships create mutual benefits for participants, and c) power and influence attempts that have been a major non-contractual coordinating mechanism and the focus of this study. The chapter is organized as follows:

Section 2.1 Interfirm governance in marketing channels
2.1 Interfirm governance in marketing channels

The store-tenant relationship examined in this research is a hybrid organizational arrangement created by department stores that simultaneously control their own departments and leased departments. How channel relationships are structured and managed is an important topic to practitioners and academics known as interfirm governance. From a managerial perspective, whether one should work closely with a single supplier, who is totally committed, or with a portfolio of suppliers, keeping an arms length relationship, is a strategic decision in its own right. In the marketing literature, there is a resurgence of research and theorizing on interfirm relationships in marketing channel in recent years (Heide 1994). The growing interest is due to the traditional micro economic description of spot market transactions being challenged by other nonmarket forms of governance such as vertical marketing system (Carman 1980), manufacturer-supplier partnership (Anderson and Narus 1990), co-marketing alliance (Bucklin and Sengupta 1992), and the development of long term buyer-seller relationship (Dwyer, Schurr, and Oh 1987).

Williamson and Ouchi (1981) broadly defined governance as the 'mode of organizing transactions'. More precisely, governance includes elements of establishing and structuring exchange relationships as well as aspects of monitoring and enforcement (Heide 1994). In the channel context, interfirm governance is organizational arrangements that govern the exchange process between channel institutions. Given the limitation of research paradigms in marketing channels (Stern & Reve 1980), researchers have attempted to explain nonmarket forms of governance (e.g. organizational arrangement like the formation of strategic partnerships in just-in-time management) using theoretical developments in other disciplinary areas. These areas include social exchange theory (Thibaut and Kelly 1959; Emerson 1962), contract law (Macneil 1980),
transaction cost economics (Williamson 1985), organizational theory (Pfeffer and Salancik 1978), and the resource-based view of the firm (Wenerfelt 1984, Barney 1991, 2001). As different theoretical frameworks rest on different assumptions about the nature of the interfirm governance process, it is important to examine how these theories contribute to the study of store-tenant relationships. It would also be helpful to have a framework for distribution channels that provides a comprehensive mapping of the field so that one could identify where the topics "interfirm relationship" and "power" stand within the field of distribution channel research. Stern and Reve's (1980) seminal work on distribution channels as political economies: a framework for comparative analysis serves as the basis for such a mapping purpose.

2.1.1 A political economy framework for distribution

Stern and Reve (1980) observed that the early development of channel theory tended to adopt either an economic orientation or a behavioral orientation. The former studied distribution system using the microeconomic paradigm. Economic efficiency is taken as the underlying decision criterion that motivates marketing actors to pursue specific functional role within distribution channel (Baligh and Richartz 1967; Bucklin 1973). Such an approach has given little attention to the process between the channel members. The latter examines the behavioral process of marketing actors by focusing on power and conflict phenomena (Stern 1969) and borrows explanations from social psychology and organizational theory. The economic and behavioral paradigms were often pursued independently, resulting in a rather fragmented approach in the early development of channel theory. Stern and Reve (1980) subsequently presented the political economy framework that integrated the economic and behavioral perspectives by considered the two as complementary phenomena.

The framework adopts a political economy approach to the study of social systems (Benson 1975; Zaid 1970). The premise of the framework is that a distribution channel is a social system comprising interacting economic and sociopolitical forces which affect channel behavior and performance (Fig. 2.1). As
indicated, there are two major systems: (a) the **internal political economy** that relates to the structuring and functioning of the distribution channel and (b) the **external political economy** that forms the task environment of the distribution channel.

(a) Internal political economy

The internal political economy embraces the structuring and functioning of the distribution channel in terms of economic and sociopolitical allocation systems. The systems represent (a) internal economy, which consists of *economic structure and process*, and (b) internal polity, which consists of *sociopolitical structure and process*.

*Internal Economic structure* is driven by interfirm governance decisions. The economic structure is determined by the vertical economic arrangements among channel members to complete exchanges. E.g. a channel may consist of a large number of independent firms that facilitate the exchange of goods across markets or complete vertical integration where exchange of goods take place between wholly owned units within the hierarchy of the same organization.

---

**Fig. 2.1 A Political Economy Framework**

**Distribution Channel** (Internal Political Economy)

- **Internal Economy**
  - (a) Internal economic structure (Interfirm governance)
    - e.g. market, hierarchy, strategic partnership
  - (b) Internal economic process (Decision mechanism)
    - e.g. centralized planning or free market allocation

- **Internal Polity**
  - (a) Internal socio-political structure
    - (Power/dependence relations e.g. unilateral or bilateral dependence)
  - (b) Internal socio-political processes (Dominant sentiments and behavior e.g. minimum cooperation or maximum cooperation)

**Channel Environment** (Ext. Political Economy)

- **External Economy**
  - external economic environment

- **External Polity**
  - external socio-political environment

---

21
Between the market and hierarchy, there are a variety of nonmarket forms of interfirm arrangement between channel members to facilitate transactions.

*Internal economic processes* are determined by the prevailing practice in the industry such that the agreement on terms of trade could follow industry norms, via bargaining or centrally coordinated by a channel leader.

*Internal sociopolitical structure* is associated with the allocation of power within the distribution channel. Depending on the power/dependence relations, power can be concentrated in a single channel member in the case of an administered vertical marketing system (McCammon and Bates 1965), referred to as a unilateral power system (Bonoma 1976). However, more common situations are variations from low dependence to mutual dependence that generate different levels of interdependency between channel members.

*Internal sociopolitical process* is closely associated with the consequence of power-dependent relationships between channel members that results in various sentiments and behavior often typified by cooperation and conflicts.

(b) External political economy

External political economy is the task environment in which the distribution channel operates. It consists of (a) the external economy, i.e. the prevailing economic environment and (b) the external polity, i.e. the external sociopolitical system that relates to the power relations, sentiments and behavior between external actors (e.g. regulatory agencies, competitors) and the focal channel (Thompson 1967). The external economic and sociopolitical forces will interact and influence the internal political economy of the focal channel, leading to adaptations and responses that also shape the external environment (Pfeffer and
Salancik 1978). The arrows in Figure 2.1 represent the interactions of the four systems.

Although this research project is concerned with horizontal rather than vertical channel relationships, one can still map the research areas from the political economy framework. For example, store-tenant interfirm organizational arrangement falls within the internal economic structure of the framework. The power/dependence relationship between the store and its tenant is part of the internal sociopolitical structure. The department store exercises power and influence strategies and the relative behavioral outcome and sentiment belongs to the internal socio-political processes.

2.1.2 Theoretical perspectives of interfirm governance (internal economic structure)

This section reviews theories that seek to explain how firms organize their external relationships or manage interfirm governance. Since interfirm governance involves establishing, structuring, enforcing and monitoring of exchange relationships (Heide 1994), it is an important managerial decision in distribution channels.

Early studies of distribution channel activities examined channel decisions for their impact on economic efficiency, as in the case of ‘make or buy’ decision. An alternative approach viewed channel decisions from a behavioral perspective that involves the use of power to influence others to align with individual member’s channel goal. These early economic and behavioral models reduced channel decisions to a trade-off between cost and control (Anderson and Weitz 1983; Cespedes 1988). The implicit view of the governance decision in the economic model is a choice between internal (i.e. hierarchy) or external (i.e. market) organization and that in the behavioral model is the design of non-contractual mechanisms such as employing power to control the role performance of other channel members. Heide (1994, pp. 72) has pointed out that the cost versus control decision rule has inherent limitations:
First, scale economies only account for one component of the relevant costs. Second, control is not an inherent property of integrated channel systems. Even in cases in which a particular function is internalized, specific control mechanisms must be put in place, and choices exist between control mechanics with fundamentally different properties (Anderson and Oliver 1987). In fact, some authors (e.g., Coughlan 1985; Jeuland and Shugan 1983) have suggested that interfirrm agreements can be structured in such a way as to make integrated and non-integrated channel "indistinguishable" (McGuire and Staelin 1983, pp. 189). As such, the key issue is not necessary ownership or integration per se, but rather the manner in which a particular relationship is organized.

From the citation above, a key issue of interfirrm governance is the manner in which a particular relationship is organized. Several theories have attempted to explain interfirrm governance from either a normative (e.g. transaction cost theory) or descriptive (e.g. social exchange theory) perspective. They provide useful insights to this research on store-tenant relationship and power/dependence.

*Social exchange theory (SET)*

SET rests on the assumption that exchange partners are motivated to enter into and maintain relationships in the expectation that it will be economically and socially rewarding (Homans 1958; Blau 1968). The core explanatory mechanism of SET is relational interdependence, or relational contract, that arises as a result of interactions of exchange parties over time (Dwyer, Shurr and Oh 1987; Hallen, Johanson, and Seyed-Mohamed 1991). Hence, according to SET, the mechanism that firms used to govern transactions with other firms is of mutual dependence, relationship building on trust, commitment, and relational norms. In the channel context, mutually dependent relationships between exchange partners provide non-contractual governance mechanisms that replace or supplement formal governance mechanisms (e.g. contract). The foundational premises of SET are (Lambe, Wittmann & Spekman 2001):

1. Exchange interactions involve economic and/or social outcomes (Homans 1958; Blau 1964).
2. Over time, each party in the exchange relationship compares the social and economic outcomes from these interactions to those that are available from exchange alternatives, which determine their dependence on the exchange relationship (Thibaut and Kelly 1959; Anderson and Narus 1984; Anderson, Hakansson, and Johanson 1994).

3. Positive economic and social outcomes over time increase the partners’ trust and commitment to maintaining the exchange relationship (Blau 1964; Dwyer, Schurr, and Oh 1987; Morgan and Hunt 1994).

4. Positive exchange interactions over time also produce relational exchange norms that govern the exchange partners’ interactions (Thibaut and Kelly 1959; Blau 1964; Heide and John 1992; Nevin 1995).

Major contributions of SET to distribution channel research include the identification of the dependence-power association (Emerson 1962; Thibaut and Kelly 1959; Gaski 1984) and trust, commitment and relational norms as the determinants of long term relationships (Thibaut and Kelly 1959; Blau 1964; Heide and John 1992; Lambe, Wittmann and Spekman 2001).

Relational contracting theory

Closely associated with the SET and yet developed from a contract law perspective is Macneil’s relational contracting model (Macneil 1978, 1980). Macneil proposed a typology of discrete versus relational exchange. Under discrete exchange, interfirm governance is a discrete transaction that are independent of past and future relations between the contracting parties as typifies by the example of Dwyer, Schurr and Oh (1987) as “A one-time purchase of unbranded gasoline out-of-town at an independent station paid for with cash.” In contrast, interfirm governance under relational exchange takes into account the past and future social context in which the transaction took place. Contract enforcement is relation-based, governed by societal norms and obligations that exist between a set of parties (Dwyer, Schurr, and Oh 1987). Therefore, interfirm governance under relational exchange is essentially a normative process that
develops over time to establish relational norms. The idea is very similar to SET except that Macneil further elaborates and categorizes the norms involved.

Both SET and relational contract theory capture the spirit of a bilateral relationship and acknowledge its importance in maintaining long term relationships. However, empirical studies have failed to support the notion that relational governance or norms can supplant formal governance (Lambe, Wittmann and Spekman 2001), despite the fact that scholars have argued conceptually that norms may be good substitutes for formal governance (Macaulay 1963; Griesinger 1990; Hill 1990). Since both theories are descriptive, no clear criteria are provided for managerial decisions on what types of norms should be established to govern continuing relationships. To what extent can norms substitute for power in bilateral relationships?

As for this project, since the store-tenant relationship is a unilateral relationship, it is worth finding out whether the store, being the powerful partner, would or would not pursue long term stable relationship with its tenants.

Transaction cost theory

Transaction cost theory is a normative theory which argues that firms should manage their transactions by designing particular governance mechanisms to minimize transaction costs. Williamson and Ouchi (1981) define governance as a ‘mode of organizing transactions’, which deals with structuring and monitoring exchange relationships. Hence, transaction costs include ‘direct costs’ of managing relationships and the possible ‘opportunity costs’ of making inferior governance decisions (Rindfleisch and Heide 1997).

The transaction cost analytical framework is based on the interplay between two assumptions about human behavior – bounded rationality and opportunism, and two key dimensions of transactions – asset specificity and uncertainty (Rindfleisch and Heide 1997).
Bounded rationality assumes that decision makers have constraints on the cognitive capabilities and limits on their rationality. Consequently, managers have difficulty in specifying all the circumstances surrounding an exchange. Thus, they are constrained by environmental uncertainty. This creates an adaptation problem associated with the difficulties in modifying agreements to changing circumstances and give rise to added costs of coordination and negotiation. In addition, managers are also confronted with difficulties in verifying whether the agreements are being complied with, which is a performance evaluation problem. Thus, they are constrained by behavioral uncertainty, which give rises to contract monitoring and performance evaluation costs.

Williamson (1975) also assumes that individuals will pursue opportunistic behavior when situations arise by cheating or violating contractual agreements. Opportunism or ‘self-interest seeking with guile’ (Williamson 1975) poses a problem to the extent that an exchange relationship is supported by ‘specific assets’ that almost have no value outside the focal exchange relationship. The presence of specific assets give rise to ‘safeguarding problem’ or direct cost of safeguarding specific investment from potential opportunistic behavior.

The main premise of transaction cost theory is that there are potential costs associated with carrying out safeguarding, adaptation, and evaluation processes. The governance solution to these transaction problems is complete integration so that all transactions are internalized and fully controlled by the firm.

The original framework, as developed by Williamson (1975), views the governance decision as fundamentally a choice between a ‘market’, with transactions facilitates by the price mechanism, or ‘hierarchy’, implying unified authority structure.

Recent related studies have shown that features of hierarchical governance as highlighted by transaction cost theory could, in fact, be built into exchange contract unilaterally by one exchange party (Stinchcombe 1985; Heide 1994).
That is to organize an exchange relation in a unilateral fashion by establishing an authority structure that gives one exchange partner the ability to develop rules, policies and impose decisions on the other (Hart 1990; Simon 1991). For example, franchising contracts often unilaterally impose standard operation procedures, incentives systems, sanction procedures, and termination clauses on franchisees. A similar approach is adopted by the department store whose leased departments, though owned by retail tenants, yet are monitored by the contractual arrangement unilaterally specified by the store.

Transaction cost theory has been criticized for overemphasizing the ability of hierarchical mechanisms to govern relationships and failing to acknowledge the social structure that is embedded in exchanges (Granovetter 1985). Its assumption of opportunism as the general pattern of individual behavior may be incorrect and limits the generality of the framework (Heide & John 1992). Moreover, as transaction cost analysis ignores the other forms of nonmarket governance which are fundamentally different from markets and hierarchies, SET and relational contracting theory could be used in conjunction with transaction cost theory to provide a more comprehensive explanation of different modes of interfim governance.

Resource dependence theory

Resource dependence theory views interfim governance as a strategic response to conditions of uncertainty and dependence (Pfeffer and Salancik 1978). Dependence arises due to firms who are seldom self-sufficient and have to rely on others who control critical resources. Subsequently, this introduces uncertainty into a firm’s decision-making environment as the firm has no control over the flow of critical resources and cannot predict decision outcomes accurately.

The main premise of resource dependence theory is that firms will seek to reduce uncertainty and manage dependence by purposefully structuring their exchange relationships by means of establishing formal or informal links with
other firms (Pennings and Woiceshyn 1987). These links may be in the form of mergers, joint ventures, or various forms of contractual relationship.

The implication of resource dependence theory for interfirm governance is the identification of dependence and uncertainty as the antecedents of interfirm relationships. However, the theory does not provide recommendations as to what specific mechanisms and under what situation a particular mode of governance is appropriate.

Resource-based view of the firm

According to the resource-based view (RBV), a firm develops sustainable competitive advantage by combining its bundle of resources in a unique pattern (Wernerfelt 1984). Firms’ resources are therefore the drivers of firm performance and ultimately, of competitive advantage. The RBV assumes that (a) resources are heterogeneously distributed across firms, and (b) in many ways those resources that form the core competence of the firm are often difficult to transfer to other firms without costs (Barney 1991, 2001). One of the reasons which account for firm differences in their resource-based attributes is path dependence as each firm has developed under specific historical conditions. With the assumptions of resource heterogeneity and immobility, Barney (1991) specifies the conditions under which firms’ resources will become drivers of sustainable performance:

“... (a) it must be valuable, in the sense that it exploits opportunities and/or neutralizes threats in a firm’s environment, (b) it must be rare among a firm’s current and potential competition, (c) it must be imperfectly imitable, and (d) there cannot be strategically equivalent substitutes for this response that are valuable but neither rare or imperfectly imitable.” (Barney 1991, p.105-106)

Thus, resources that are valuable (i.e. contribute to firm efficiency or effectiveness) and rare (i.e. not widely held) can produce competitive advantage. If such resources are also not imitable (i.e. cannot be replicated by competitors), not substitutable (i.e. other resources configuration cannot fulfill the same function), and not transferable or available in resource markets (Dierickx and Cool 1989),
then such resources can produce competitive advantage that is sustainable (Priem and Butler 2001).

The RBV defines resource as "...anything which could be thought of as a strength or weakness of a given firm. More formally, a firm's resources at a given time could be defined as those (tangible and intangible) assets which are tied semi-permanently to the firm (see Caves 1980). Examples of resources are: brand names, in-house knowledge of technology, employment of skilled personnel, trade contracts,......etc" (Wernerfelt 1984, p.172). The firm uses these resources to choose and implement its strategies (Barney 2001, p.54). The all-inclusive definition of firm resources does not imply that the RBV is lacking prescriptive guidance. In fact, it actually enhances the prescriptive value of the RBV as Barney (2001) explains:

"Resource-based theorists do not pretend to be able to generate a list of critical resources every firm must process in order to gain sustained strategic advantage. This is because, as has already been suggested, the value of particular resources depends on the specific market context in which they are applied. However, theorists do describe the attributes that these valuable resources must have if they are going to be resources of sustained strategic advantage for firms." (Barney 2001, p.51).

The RBV takes the firm as the unit of analysis by examining why and how resources contribute to firm sustained competitive advantage in a particular product/market (e.g. Barney 1991, Conner 1991, Powell 1992 a, 1992b). It takes a different perspective from others in the field of strategic management. Early research work in strategic management followed a single-process "SWOT" framework. This framework suggests that firms obtain sustained competitive advantage by pursuing strategies that exploit their internal strengths to match with the external opportunities of the environment, while minimizing environmental threats and avoiding their internal weaknesses (Ansoff 1965, Andrews 1971, Hofer and Schendel 1978). Scholars generally gave equivalent attention to firm strengths and weaknesses versus the opportunities and threats in the competitive environment. Porter's (1980, 1985) influential work, the "five forces model" and
the value chain framework, have added another dimension to examine strategy and competitive advantage using industry-level analysis, shifting the emphasis to external, industry-based determinants. For example, the "five forces model" specifies the conditions that make an industry more/less attractive in terms of rivalry intensity, buyer power, supplier power, threat of substitutes and entry/exit barriers. In other words, the rent-earning potential of the industry is determined by industry forces which form the industry environment in which the firm operates.

The major contribution of the RBV is its insight in pointing out resources as important antecedents to products and, ultimately, firm performance (Wernerfelt 1984, Priem and Butler 2001). Its importance lies in fundamental strategic thinking where "managers often fail to recognize that a bundle of assets, rather than the particular product market combination chosen for its deployment, lies at the heart of their firm's competitive position" (Dierickx and Cool 1989, p.1504).

The core ideas of the RBV and its argument on sustainable competitive advantage have been tested on firms with resources in, to name a few: information technology (Mata, Fuerst, and Barney 1995, Powell 1997), human resources management (Flood, Smith, and Derfus 1996, Lado and Wilson 1994), trust (Barney and Hansen 1994), organizational culture (Fiol 1991, Oliver 1997), market-based assets (Hunt and Morgan 1995, Srivastava, Shervani, & Fahey 1998), and buyer-supplier relationships (1999, 2001). From these examples, it is not surprising to find that the RBV argument has been applied to other non-strategic management disciplines such as human resources management, management information systems, and marketing.

From the RBV perspective, interfirm governance is a process where the firm manages its resources, which span the firm's boundaries. The management of different kinds of channel relationships, such as wholesaler-manufacturer relationships, wholesaler-retailer relationships and retailer-retailer relationships should be treated as key resources or market-based assets of the firm (Srivastava,
Shervani, & Fahey 1998). There is a growing recognition that competitive advantage can be attained through interfirm relationships that fulfill the following conditions: resource heterogeneity (e.g. unique competencies), *ex ante* limits to competition (e.g. cost advantage), *ex post* limits to competition (e.g. tacit skills) and imperfect mobility (e.g. non-transferable quality of the relationship such as commitment) (Dyer and Singh 1998; Jap 2001).

Though one may argue that close collaborative relationships with key customers and suppliers can be a market-based asset which could deliver long-term value to share holders, how to assess or measure the “value derived” from intangible assets such as buyer-seller relationships over time is yet to be determined and deserves marketing scholars’ attention (Hogan and Armstrong 2001).

With reference to the above body of literature on interfirm governance, it is clear that interfirm relationships can be organized by either market mechanisms or nonmarket mechanisms such as authority, bilateral power systems and relational norms. Heide (1994) has proposed a governance typology made up of market governance and nonmarket governance. He then further distinguishes between unilateral and bilateral forms of nonmarket governance on the basis of how a ‘relation’ is crafted. Interfirm relationships can be organized in a variety of ways. Exchange relationships can be set up with a relational orientation by establishing bilateral exchange in which exchange partners jointly develop policies towards the achievement of mutual goals as in the case of just-in-time alliances (Frazier, Spckman and O’Neal 1988). However, a relation can also be organized in a unilateral fashion using a hierarchical authority structure that allows one party to impose policies, rules and decisions on the other like an integrated corporate system. Such arrangements can be made by means of contractual provisions, as in the case of the store-tenant relationship or in the case of franchising contracts, to achieve the effects of hierarchies (Stinchcombe 1985). Similar market and nonmarket governance trichotomy is being found elsewhere.
Bradach and Eccles (1989) proposed price, authority, and trust as major forms of exchange governance while Ouchi (1980) proposed markets, bureaucracies, and clans as similar mechanisms.

It is important to note that market, hierarchy or normative control systems seldom solely govern interfirm exchanges. Bradach and Eccles (1989) have shown how firms deliberately combine different forms into a single system of ‘plural governance’, an organization arrangement where two control mechanisms operated simultaneously for the same company. In so doing, the company can play the governance properties of different forms against each other. For example, a manufacturer may acquire the same components from its internal units or from the market, an approach combining the hierarchy and market. Buyers, with a history of the company’s manufacturing components, will have better manufacturing and cost information inhibiting external suppliers to engage in opportunistic bargaining (Walker & Weber 1984). Another example is the department store which has its own departments and also has leased departments operated by tenant retailers under the store’s administrative system, a hybrid of hierarchy coupled with market-hierarchical mechanisms. The merit of the store-tenant plural governance could represent strategic advantages, in the form of an inherent flexibility to respond to environmental uncertainties such as bringing in new tenants in response to changes in consumer preferences.

The phenomenon of the plural form of governance such as store-tenant organizational arrangements has provided new avenues for empirical enquiry. Heide (1994) has pointed out that governance dimensions such as the determinants of plural governance structures and the performance implications of different governance strategies are virtually unexplored in the existing literature. Hence, the power and performance outcome of store-tenant plural governance studied here will make a significant contribution in this area.
2.2 Relationship marketing within the channel context

The department store and its retail tenants are motivated to enter into a collaborative horizontal relationship of fixed period of time as determined by contract. The contractual relationship can be renewed and perpetuated for a long period of time provided both parties are satisfied with each other’s performance. The contract period adds a temporal dimension to the relationship. No matter how long the relationship lasts, by the end of each contract cycle, each party has to assess the outcome of the working relationship and to decide whether to continue the relationship at the same level of collaboration, to expand it, or to curtail it. This section examines the store-tenant relationship from a channel perspective and considered if the relationship marketing framework is applicable to horizontal channel relationship.

2.2.1 Relationship marketing

Marketing scholars’ interest in relationship marketing has grown immensely over the last two decades. In the distribution channel context, that growing interest has caused a shift in orientation in research and practice from discrete exchanges to relational exchanges. The shift was pioneered by the work of Adler (1966), Arndt (1979) and the Industrial Marketing and Purchasing Group (IMP) (Hakansson 1982), who influenced relationship marketing thinking in the business marketing and channel disciplines in both sides of the Atlantic. These scholars have observed the trend of business firms engaging in long lasting cooperative relationships with their key customers or suppliers. Arndt (1979) has used the term market domestication to describe how such firms, in response to market imperfection, pooled their resources together to build synergy by having voluntary, long term, binding commitments among themselves. The benefits of domesticating markets are (i) the reduction of uncertainty of operations that could be achieved by gaining more control on supply and demand, (ii) the reduction of transaction costs by handling transactions routinely by administrative procedures rather than by time-consuming, negotiation exchanges, and (iii) the creation of synergy by combining complementary operations. It was then recognized that
close collaborative relationships in the form of working partnerships (Anderson and Narus 1990) and long term dyadic business relationships (Dwyer, Schurr, & Oh 1987) can achieve similar benefits.

Further conceptual work in relationship marketing has identified dimensions characterizing business relationship in general (Dwyer, Schurr, & Oh 1987; Wilson 1995) and channel relationships governed by unilateral and bilateral organization arrangement (Heide 1994).

2.2.2 Distribution channel – policies, nature and trends

Despite the growing popularity of relationship marketing among marketing practitioners and scholars, the nature of certain channel policies often prohibits the development of close relationship between channel members. For example, supply firms using intensive and selective distribution systems have chosen to provide market coverage using multiple channels thereby limiting their dependency on a particular channel member. Similarly, assortment and variety are often the major benefit offered by wholesalers and retailers. These channel members usually deal with multiple competitive suppliers in a product category in order to cater to the needs of their customers from different segments. Thus, the need to provide assortment might require wholesalers and retailers to establish committed relationship with competing suppliers (Weitz and Jap 1995).

Frazier and Antia (1995) pointed out that today many channel relationships are becoming weaker rather than more relational in nature. Intensified competition has forced manufacturers to pursue market share by using multiple channels while simultaneously cutting cost by reducing the number of sales persons. The expansion of distribution channels will reduce the dependence level of intermediaries on these manufacturers and reducing the number of sales persons would lead to fewer visits per intermediary. Both actions are counter productive to relationship marketing.
It is possible that undesirable circumstances exist when the costs of building relationships outweighs the benefits. This could be the case when wholesalers or retailers enter overseas markets in developing countries where the ‘hidden cost’ is high due to an unpredictable foreign market environment (Samiee 1993, Goldman 2001).

Many management projects and horizontal alliances are short-term, or “interimistic,” relational exchanges (Lambe, Spekman, & Hunt 2000). Interimistic relational exchange is defined as a close, collaborative, fast-developing, short-lived exchange relationship in which companies pool their skills and/or resources to address a transient, albeit important, business opportunity and/or threat (Lambe, Spekman, & Hunt 2000). Because interimistic exchange relationships must quickly become functional and have a short life, these relationships have less time to fully develop the relational governance mechanisms assumed in the relationship marketing model.

The store-tenant alliance relationship is an example of horizontal alliance with a finite exchange duration specified by contract. The performance of the relationship will be reviewed at the end of the contract period and will be continued only if both parties are satisfied with the other’s performance. Since the time horizon of the exchange has a well defined beginning and an end with duration of two to three years, the time pressure makes it more difficult and less desirable for firms to engage in relational exchange in its fullest sense. Lambe, Spekman and Hunt (2000) refer to such exchange as short term relational exchange or interimistic relational exchange as distinguished from long term relational exchange that falls under the rubric of relationship marketing. Instead of relying on trust and relational norms, which require a long period of time to develop, short term relational exchange relationships strongly rely on mechanisms that allow trust and relational norms to develop either prior to the relationship, or very early in the life of the relationship. Lamie, Spekman and Hunt (2000) suggested that reputation for fair dealing and prior relationship interactions would help exchange parties to overcome time constraints on trust development. Industry
wide exchange norms and partners' relational exchange competence could supplant relational exchange norms. Since department stores in China have a long history of serving as the backbone of the retail system in China (Goldman 2001), they possess reputation and exchange competence that serve as the basis for building trust and commitment with retail tenants in short term relational exchange.

2.3 Power and influence attempts in horizontal alliance

The marketing literature relating to power in horizontal alliances or lateral relationship is almost non-existent. Bucklin and Sengupta's (1993) empirical study on achieving success in co-marketing alliance by reducing power and managerial imbalances is a rare piece. Sheth and Parvatiyar (1992) and Cravens and Cravens (2000) provide conceptual pieces on business alliance formation and horizontal alliances process and strategy. Other work on horizontal alliances comes mainly from the strategic management and international business literatures, which nonetheless focus on aspects other than power. For this research, major source of references on power, its bases and use as influence strategies, have been taken from the marketing channel literature, which has a well established tradition in examining power/dependence relationships (Stern & Reve 1980; Gaski 1984; Scheer & Stern 1992; Kumar, Scheer, & Steenkamp 1995; Geyskens and Steenkamp 2000). Social Exchange Theory (Section 2.1.2) has provided the theoretical framework for channel studies on power/dependence relationship and other non-contractual control mechanisms.

2.3.1 Power as control mechanism

Distribution channels are sets of interdependent firms working together to deliver products from manufacturers to end consumers. The existence of interdependence among firms means that each firm possesses a level of power relative to other firms and has the potential to influence others attitudes and behavior. Stern, El-Ansary and Coughan (1996) considered that in order to avoid channel members independently seeking their own self-interest, channel activities have to be coordinated and controlled. The exertion of channel power has been
one mechanism used to bring the action of disparate channel members under control and coordinate them. Altogether, three control mechanisms are used to coordinate activities in channels. These include authoritative control, contractual control and normative control (Weitz and Jap 1995, p. 307). Equally, the department store uses a combination of the three types of coordinating and control mechanisms to govern the store-tenant relationships, including rules, policies and supervision (authoritative), the store-tenant contractual agreement (contractual) and industrial norms (normative).

2.3.2 Research on channel power

Previous research on channel power has focused mainly on the vertical channel relationship (El-Ansary and Stern 1972; Kale 1986, Frazier and Rody 1991, Brown, Lusch, and Nicholson 1995, Kiyak, Roath, and Schatzel 2001). By contrast, this study is concerned with the use of power in horizontal channel relationships which has been ignored in the literature (Bucklin and Sengupta 1992). Partners in this form of lateral relationship are potentially direct or indirect competitors while at the same time, sharing their specialized skills and complementary resources.

The body of knowledge on marketing channel power has been growing since the early studies conducted by El-Ansary and Stern (1972), and Hunt and Nevin (1974) who investigated perceived power, its sources and dependence. There remains much to be learned about the antecedents, consequences, and usage of power in relational exchange (Brown, Lusch and Nicholson 1995 p.384). As most research on channel power has been limited by its American setting, researchers in marketing channels have pointed out the need to extend channel studies to other countries or markets (Geyskens and Steenkamp 2000, p.27; Frazier, Gill and Kale 1989 p.66-67; Kale 1986 p.387). This research serves to fill such gap by validating some of the established channel constructs in a developing country.
2.3.3 Store-tenant dependence, power and influence attempt

Dependence in a distribution channel is created when firm A controls certain critical resources demanded by firm B, so that B depends on A for the resource. As no firm is self-sufficient, firms have to engage in exchange relationship to obtain the resources they lack (Pfeffer and Salancik 1978). The importance of the relationship to the exchange partners, in this case either the store or the tenant, and hence the level of dependence is reflected by (i) the importance of the resource controlled by the store or the tenant and (ii) the exchange partner’s ability to replace the relationship (Emerson 1962).

The symmetry of the relationship is the extent to which exchange partner value one another’s resources. If the resources of the two parties are valued equally, the relationship is symmetric. If the resources of one party are valued more than those of the other, the relationship is asymmetric (Buchanan 1992). In the store-tenant situation, since department stores controlled the crucial resource of the retail business – prime retail location (Section 1.2.3) – and also the right to impose contract terms and conditions on most retail tenants (Hart 1990; Simon 1991), the relationship is asymmetric with tenants having high level of dependence on the store, rather than the other way round.

Given that its sales floor space available for leasing is limited, the department store will carefully consider the investment in its trade relationship with tenants. To ensure that satisfactory revenue is generated from specific assets (i.e. location specificity) and to safeguard such specific investments, department stores select tenants carefully and monitor tenants’ monthly sales performance (Williamson 1975), which is a form of control unilaterally imposed. Tenant’s sales performance also ties in with the store’s performance to the extent that a percentage of commission on sales is charged on top of tenant rental when sales exceeded a predetermined level. The store will continue to invest in its relationship with a tenant as long as the benefits received outweigh the cost involved and the net value of the relationship is greater or equal to that of available alternatives (Buchanan 1992).
Following the above discussion, since retail tenants are more dependent on department stores than vice versa, the department store management will have more discretion to decide which type of power, coercive or non-coercive, to apply to the relationship. Such decisions will influence tenant satisfaction and commitment that will eventually link to tenant performance and directly affects the store performance.

2.4. Summary and conclusion

This chapter has reviewed the literature related to this research project. First, the chapter introduced concepts and theories which relate to interfirm governance, which are organizational arrangements crafted by business firms to manage their external exchange relationships. This is important to research since the store-tenant relationship is an arrangement designed by the department store that cleverly combines hierarchy (own departments) and market (leased department) under an authority-based system. The study of power and performance relationships under such an organizational arrangement will contribute to the distribution channel literature. Second, the chapter examined the relevance of applying relationship marketing to horizontal channel relationships, of which the store-tenant relationship is one example. It was concluded that the store-tenant relationship is a form of short term relational exchange. However, with department stores’ reputation and exchange competence, exchange parties can develop committed relationships within a limited period of time. Finally, the chapter examines the nature of power, relating to marketing channel, and the horizontal relationship between the department store and its tenants. It was concluded that tenants are highly dependent on the store and the relationship is asymmetrical with respect to power.
CHAPTER 3

CONCEPTUAL MODEL AND HYPOTHESES

This chapter presents the concepts underpinning the power model of this study. It begins with an explanation of the conceptual framework for the model and the associated research questions. Next, it presents the model visually in a path diagram, followed by explanations of how the constructs are developed. Also, the relationships between them are hypothesized. The chapter closes with a summary and conclusion. The content consists of three sections.

Section 3.1 The conceptual model and path diagram
Section 3.2 Construct conceptualization and hypotheses
Section 3.3 Summary and conclusion

3.1 The conceptual framework and path diagram

Power, defined as the potential to influence others, is the focal construct of this study. This section describes the concepts that were used to develop the conceptual model for the store-tenant relationship. The model is based on the structure-action-outcome framework of Molm (1990) who argued that a complete analysis of power must include three aspects:

Structural aspects of power, which relate to power attributes including power sources (e.g. reward power or expert power) and the level of dependence.
Behavioral aspects of power, which relate to the manner in which power is exercised, contingently or non-contingently.

Outcome aspects of power, which relate to performance and future exchange relationships.

Examination of these three aspects of power will provide answers and insights to the research questions put forth in this project (Section 1.3):

1. ‘How does the more powerful (less dependent) partner in the store-tenant relationship use power to influence the behavior of the other?
2. ‘What is the impact of coercive and non-coercive influence on the store-tenant relationship outcomes, such as satisfaction and commitment?’
3. ‘Are the casual linkages among channel constructs dependence, power, satisfaction, commitment, and strategic performance similar to other published findings on channel relationships?’
4. ‘How applicable is it, for channel constructs which have been well established in Western channel research, to be used in a developing country?’

3.1.1 Conceptual model

This study uses a structure-action-outcome framework to help understand the role of power in exchange relationship between channel members (cf. Molm 1990).

Structure refers to the structural aspects of power that are determined by the store and retail tenant in their trade relationship (Section 2.3.3). Such aspects include the importance of the relationship as perceived by the store and the tenant, hence the level of dependence reflected by the importance of the resources controlled by the partners and the partners ability to replace the relationship. As such, the structural aspects reflect the symmetry of the relationship, the level of
dependence and consequently the level of power that the store or the tenant possesses. These will influence the manner in which power is used (Kumar, Scheer, & Steenkamp 1998).

Action, the behavioral aspect of power, refers to the manner in which either the store or the tenant’s use of power resources (contingently or non-contingently) influences each other’s behavior in the dyad (Sheer and Stern 1992). The notion of contingent use of power resources is defined as ‘selectively giving or withholding rewards or punishments for exchange partners, contingent on the other’s prior behavior’ (Sheer and Stern 1992). Use of power strategies are constructs frequently examined in channel study (Geyskens and Steenkamp 2000).

Outcome refers to the performance of the exchange relationship as a consequence of the dependence level and influence strategies which characterized the exchange. Behavioral constructs such as satisfaction, trust and commitment are commonly used to indicate the performance of the channel relationship (Geyskens, Steenkamp, and Kumar 1999). In this research, economic satisfaction, social satisfaction, commitment, and strategic performance are used as outcome variables (Section 1.4). Hence, behavioral and strategic aspects of relationship performance are included.

Figure 3.1 presents the path diagram of the structure-action-outcome model. Dependence is the antecedent of power use, which leads to satisfaction and hence to commitment which determines strategic performance. Satisfaction develops (or not) as a consequence of the way in which power is handled in the continuing interaction between the participants. That, in turn, impacts on commitment, which evolves in the long run and is future oriented. Empirical evidence favors the conclusion that commitment is the outcome of channel relationships with satisfaction taking casual precedence. (Morgan and Hunt 1994, Geyskens, Steenkamp and Kumar 1999). Strong commitment drives partners to achieve performance goals.
3.2 Construct conceptualization and hypotheses

3.2.1 Dependence and Power

The relationship between dependence and power is derived from the basic insight that A’s power over B is equal to B’s perceived dependence on A (Molm 1990). Put in the context of the horizontal alliance between store and tenants, the power of the store over the tenant will be a result of the latter’s dependence upon the former.

Dependence is created when firm A controls a certain critical resource valued by firm B, so that B depends on A for providing the resource. As no firm is self-sufficient, firms have to engage in exchange relationship to obtain the resource they lack (Pfeffer and Salancik 1978). The importance of the relationship to the exchange partners, in this case either the store or the tenant, and hence the level of dependence is reflected in (i) the importance of the resource controlled by the store or the tenant and (ii) the exchange partners ability to replace the relationship (Emerson 1962).

The symmetry of the relationship is the extent to which exchange partner value one another’s resources. If the resources of the two parties are valued
equally, the relationship is symmetric. If the resources of one party are valued more than those of the other, the relationship is asymmetric (Buchanan 1992).

In the store-tenant situation under study, department stores are the less dependent exchange partner in the store-tenant relationship for several reasons. Department stores in China control the crucial resource of the retail business – prime retail location. They are much bigger in terms of size of assets relative to retail tenants that are mostly small, and medium retailers. They own the right to impose contract terms and conditions on most retail tenants (Hart 1990; Simon 1991) and the prevailing limited supply of leased sale space from department stores creates a ‘sellers market’. Although China was admitted to the W.T.O. and there is a mass influx of foreign retailers into China, this condition will continue for the next few years.

In other words, the dependence of the tenant is essentially driven by firm-specific resources provided by the department store which impact on the achievement of the tenant’s goals, which is also related to the difficulty that the tenant perceives when switching to an equally desirable alternative retail partner. The store-tenant relationship is essentially a unilaterally dependent relationship. Since retail tenants are more dependent on department stores than vice versa, the department store management has the discretion to decide which type of power, coercive or non-coercive, to apply to the relationship. Such decisions will influence tenant satisfaction and commitment which links to tenants’ performance and eventually store’s performance.

The power of a channel member over its exchange partner is a function of its power sources (Hunt and Nevin 1974; Etgar 1976; Rawwas, Vitell, and Barnes 1997) and its partner’s level of dependence (Emerson 1962; Emerson 1972). French and Raven (1959) have identified five common and important sources from among many others:
Reward power = power based on the belief that A has the ability to mediate rewards for B,
Legitimate power = power originating from internalized values which dictate that A has a legitimate right to influence B and that B is obliged to accept this influence,
Referent power = power based on the identification of B with A where identification means a feeling of oneness or a desire for such an identity,
Expert power = power based on the extent of knowledge which B attributes to A within a given area,
Coercive power = power based on the anticipation of possible punishment mediated by A if B fails to yield to A's influence attempt.

Coercive power can be clearly distinguished from others since it is the only power base that involves potential punishment, leading to adverse consequences. For the other four sources, researchers found it empirically difficult to differentiate them (e.g. Hunt and Nevin 1974) and subsequently grouped them under non-coercive power. The use of non-coercive power involves rewards and assistances, leading to desirable consequences. This coercive and non-coercive power dichotomy has been used in a number of marketing channel studies (e.g. Hunt and Nevin 1974; Lusch 1976; Gaski 1984; Gaski and Nevin 1985, Frazier and Rody 1991; Sheer and Stern 1992; Kiyak, Roath and Schatzel 2001) including this one.

The store-tenant relationship is organized under an authority-based structure that endows department stores with the ability to develop rules, give instructions, and impose decisions on tenants (Heide 1994; Stern, El-Ansary, & Coughlan 1996). At the same time, the relationship is power and dependence asymmetric in the store's favor. As the dominant member of the dyad, a department store has the discretion to exercise power as a means of influencing its tenants. However, what type of power would be exercised?
Department stores could exercise coercive and non-coercive power under different situations and for different purposes. The exercise of non-coercive power is associated with the provision of assistance and rewards that aim to foster greater value congruence between stores and tenants that lead to goal compatibility (Bonomia 1976). It is primarily centered on the beliefs and attitudes of the tenants on general business issues from the store (Frazier & Rody 1991). Frequent use of non-coercive power strategies allow more sharing of information between partners which creates higher levels of agreement between two firms and develops a better atmosphere for exchange (Frazier & Summers 1984; Ruekert and Walker 1987). Further, effective use of non-coercive power, such as providing assistance, by the store can enhance the tenant’s dependence in the relationship (Bacharach and Lawler 1980).

The use of coercive power is associated with the store putting pressure on the tenant to perform a specific behavior (Frazier & Rody 1991). Failure to comply yields the consequence of punishment imposed by the store. The use of coercive power is often targeted to influence a specific event (e.g. an advertising campaign) or decision control over strategic or operational goals (e.g. customer service level, shop opening hours). (Kiyak, Roath and Schatzel 2001).

It has been argued that in situation of power asymmetry, the dominant partner will act opportunistically to exploit the other party by frequent use of coercive power (Heide and John 1992). A few empirical findings have supported this view (Dwyer & Walker 1981; Kale 1986; Frazier, Gill, & Kale 1989). Anecdotal evidence provided by business executives also indicated that firms do indeed exercise coercive power as influence strategies (Kiyak, Roath and Schatzel 2001). On the other hand, other researchers have provided another perspective and emphasized the role of power in providing effective coordination of exchange relationship (Stern and Heskett 1969). Power can be applied through use of collaborative communication and threatening communications (Mohr and Nevin 1990). In situations where close cooperation has little value, coercive power may be applied with the use of threatening communications (cf. Frazier, Gill, & Kale
1989). In other situations where cooperative efforts lead to enhanced performance, non-coercive power will promote the use of collaborative communications (cf. Frazier & Rody 1991).

In those store-tenant alliances where cooperation is emphasized and department culture prevails under the authority-based structure, the department store will be reluctant to use coercive power only when non-coercive power strategies have failed to produce a satisfactory response. Use of non-coercive power will foster goal congruence, store’s organization culture and enhance tenant’s dependence. However, department stores can always afford to use coercive power if the situation requires.

From the perspective of the tenant, who is highly dependent on the relationship, it prefers the store use non-coercive power and not coercive power. However, the higher the level of dependence, the higher the chance that the tenant is exposed to the opportunistic exploitation of the store. Given that the tenant has almost no control on the store’s decision on power strategies, it is hypothesized that:

**H1a:** In store-tenant relationships, higher levels of tenant's (T's) perceived dependence on the store (S) will lead to the perception of increased use of coercive power by S.

**H1b:** In store-tenant relationships, higher levels of T's perceived dependence on S will lead to the perception of increased use of non-coercive power by S.

3.2.2 Power and satisfaction

In marketing channel relationships, power is often used when one party attempts to obtain compliance from another to carry out specific actions. Power is defined as the potential for influence over another firm’s beliefs and behavior (Frazier 1999). Three approaches are commonly used in channel research
regarding influence attempts between two parties in a channel dyad. Using the store-tenant dyad as an example, the ‘bases of power’ approach examines the store’s sources of power over the tenant if the tenant perceives that the store possesses expertise, information, and the ability to mediate rewards or punishments (Gaski 1985, Gaski & Nevin 1985). Another approach is to initiate an influence attempt by exercising sources of power using an assistance-punishments framework (Hunt & Nevin 1974; Lusch and Brown 1982; Gaski 1985). For example, the store provides a reward by giving expert advice to the tenant, which results in tenant’s increased dependence on the store. The third approach is an influence strategy approach in which the sources of power are transformed into communication strategies implemented by company’s sales people (Frazier and Summers 1984; Kale 1986; Frazier and Rody 1991). For example, the store manager recommends or threatens the tenant to follow a specific course of action. These approaches share the common characteristics of using a power base framework and examine the effect of each type of power or influence strategy on an influence attempt.

Scheer and Stern (1992) developed the **contingency-valence framework** on power/influence attempts that is consistent with, and encompasses, the preceding approaches. It is pointed out that when a source firm (S) attempts to influence the target (T) with coercive or non-coercive power bases, S mediates some consequences for T (e.g., Frazier 1983a; John 1984). The distinguishing features of influence attempts are (a) the valence of S’s power bases and (b) whether S exercises those power resources contingently or non-contingently. As such, S can compute four scenarios of applying influence attempts on T: contingent use of non-coercive power bases, non-contingent use of non-coercive power bases, contingent use of coercive power bases and, non-contingent use of coercive power bases.

In the store-tenant relationship, the store’s contingent influence attempt would mean the store uses coercive or non-coercive power to signal explicitly to the tenant that it mediates positive (rewards) or negative (punishments)
consequences and that it will withhold them contingently after tenant’s behavioral response. When the store attempts contingent use of coercive power, the store will link punishment with tenant’s non-compliance. When the store attempts contingent use of non-coercive power, it will indicate to the tenant that an available reward will be provided only if the tenant complies.

In the store’s non-contingent influence attempt, the store again mediates consequences for the tenant but it bestows them unilaterally in the hope that the tenant will subsequently adopt the desired behavior.

Since a contingent influence attempt signals explicitly the store’s intention to the tenant, a contingent approach is expected to generate stronger perceived contingency than a non-contingent approach. From managerial perspective, this is preferable due to its effectiveness. For this project, the contingent exercise of coercive and non-coercive power is adopted.

Satisfaction in the context of an alliance may be defined as a positive affective state resulting from the appraisal of all aspects of a firm’s working partnership with another firm (Gaski and Nevin 1985). The satisfaction construct is central to channel relationships because greater member satisfaction results in higher channel productivity and efficiency (Robichaux and El-Ansary 1975). The recent meta-analysis study by Geyskens, Steenkamp and Kumar (1999) has confirmed that satisfaction is not a unitary construct. They found that the satisfaction derived from economic outcomes (economic satisfaction) differs substantially from satisfaction derived from social interactions (social satisfaction).

**Economic satisfaction** is defined as a channel member’s evaluation of the economic outcomes that flow from the relationship with its partner, reflected in measures like sales volume and margins. An economically satisfied channel member considers the relationship a success with respect to goal attainment, productivity, and financial outcomes (Geyskens, Steenkamp and Kumar 1999).
Economic satisfaction provides a tangible criterion for evaluating the health of the partnership.

Social satisfaction is defined as a channel member’s evaluation of the psychological aspects of its relationship, in that interaction with the exchange partner is fulfilling, gratifying, and facile (Geyskens and Steenkamp 2000). As such, the channel member “appreciates the contacts with its partner and, on a personal level, likes working together because it believes the partner is concerned, respectful, and willing to exchange ideas” (Geyskens, Steenkamp, and Kumar 1999, p. 224).

The contingent use of coercive power by the store would decrease the tenant’s economic and social satisfaction. Since coercive power is often exercised with the aim of achieving short-term compliance (Kasulis and Spekman 1980), the tenant always perceives some cost in complying with the store’s threats of punishment (Anderson and Narus 1990, p. 46), which could affect performance. Hence the use of punishment should decrease tenant’s economic satisfaction.

Contingent use of coercive power would have a negative effect on social satisfaction as well. A contingent approach is similar to putting a measure on someone’s behavior, this “causes the unpleasant experience of being controlled by others” (Eisenberger and Cameron 1996). Also, when being forced by the store to comply, especially if punishment is applied contingently, the tenant’s sense of autonomy is undermined as well as its social satisfaction (Frazier and Summers 1986). Thus, it is hypothesized that

**H2a:** In store-tenant relationships, T’s perception of increased use of coercive power by S will decrease its economic satisfaction.

**H2b:** In store-tenant relationships, T’s perception of increased use of coercive power by S will decrease its social satisfaction.
The contingent use of non-coercive power by the store would increase the tenant's economic and social satisfaction. Since non-coercive power is related to the bestowal of positive consequences (e.g. provision of reward, information, expert advice), it will help to improve the economic outcome. The more rewards flow from the relationship, the higher the economic satisfaction (Wilkinson 1979). The provision of rewards would have a positive effect on the tenant's social satisfaction since it generates a feeling of autonomy and would increase intrinsic motivation (Ryan, Mims, & Koestner 1983). Therefore:

**H3a:** In store-tenant relationships, T’s perception of increased use of non-coercive power by S will increase its economic satisfaction.

**H3b:** In store-tenant relationships, T’s perception of increased use of non-coercive power by S will increase its social satisfaction.

### 3.2.3 Satisfaction and commitment

Geyskens, Steenkamp and Kumar (1999) distinguish between satisfaction and commitment on the basis of the time and emotional investment made in a business relationship. Satisfaction is associated with a specific exchange episode and tangible aspects of the exchange that has developed in the early stage of the relationship. Commitment, on the other hand, has a future orientation and develops at a much later stage of the relationship. It requires a channel member to consider seriously and comprehensively the emotional and economic resources that needed to invest in the relationship for future development (Dwyer, Schurr, and Oh 1987).

**Commitment** is strongly influenced by the level of social and economic rewards received in a relationship. Partners receiving a high level of benefit from a relationship experience a high level of social and economic satisfaction whereby they view the relationship as important to maintain (Lambe, Wittmann, and Spekman 2001). Social and economic satisfaction is therefore a precondition of commitment.
It is suggested here that both economic satisfaction and social satisfaction enhance relationship stability and members' sense of unity in the relationship. An economically satisfied tenant will receive economic reward that is greater than expected or greater than it can obtain from the next best alternative partner. Hence, such a tenant will be motivated to continue to stay in the relationship. Equally, a tenant who is satisfied socially is prone to engage in constructive communication with the store to address and resolve relationship problems (Geyskens and Steenkamp 2000). Taking a positive approach to resolve conflict leads to improved social exchange and mutual understanding between the partners. The consequences of a tenant having a satisfactory relationship will lead to greater commitment to the relationship. Therefore:

**H4a:** In store-tenant relationships, T's higher level of economic satisfaction leads to a higher level of commitment to its relationship with S.

**H4b:** In store-tenant relationships, T's higher level of social satisfaction leads to a higher level of commitment to its relationship with S.

3.2.4 Commitment and strategic performance

Studies of channel relationship often use satisfaction, trust and commitment as measures for relationship quality and performance (Geyskens, Steenkamp, and Kumar 1999). There has been little investigation into the strategic aspects such as competitive advantage created from an exchange relationship (Jap 1999). Since a primary motivation for firms to engage in collaborative relationships is to achieve competitive advantages, it is necessary to include variables that reflect the strategic outcome of a relationship.

A key reason for forming collaborative relationships such as store-tenant cooperation is the attainment of competitive advantage – the capability of the horizontal alliance to compete more effectively in the marketplace. Resource-based theory offers the explanation that competitive advantage arises out of firms
possessing differentiated or superior resources relative to competitors (Teece 1980, Wernerfelt 1984). Recent studies recognized that this principle is generalizable to channel relationships between buyers and suppliers dyads (Dyer and Singh 1998; Jap 2001). Strategic performance involves sustaining competitive advantage in the long term, which requires commitment from both parties. Hence, commitment and strategic performance are positively related. This leads to the following hypothesis:

**H5**: *T's commitment to the relationship is positively associated with its strategic performance.*

The relationships that we hypothesized among the constructs are summarized in table (3.1).

<table>
<thead>
<tr>
<th>Exogenous variable</th>
<th>Endogenous variables</th>
<th>Coercive power</th>
<th>Non-coercive power</th>
<th>Economic satisfaction</th>
<th>Social satisfaction</th>
<th>Commitment</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependence</td>
<td>(+)</td>
<td>(+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coercive power</td>
<td>(-)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-coercive power</td>
<td>(+)</td>
<td>(+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic satisfaction</td>
<td></td>
<td></td>
<td>(+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social satisfaction</td>
<td></td>
<td></td>
<td></td>
<td>(+)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(+)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1 Expected linkages among latent variables
3.3 Summary and conclusion

This chapter presents the conceptual model for this study. The model is based on the structure-action-outcome framework proposed by Molm (1990). The focal construct power is examined in terms of structural attribute (dependence), behavioral attribute (use of coercive and non-coercive power), and outcomes (economic satisfaction, social satisfaction, commitment, and performance). Dependence is the only exogenous variable and the rest are endogenous variables. Based on extant literature, the relationships of the latent constructs are hypothesized. Five hypotheses have been developed.
CHAPTER 4

RESEARCH METHODOLOGY

This chapter outlines the decision processes involved in choosing appropriate research methods to test the hypotheses developed in the previous chapter. It starts with a discussion on the choice of research design. Next, it discusses procedures involved in developing the measurement instrument, followed by a section on data collection process. Finally, a summary and conclusion of the chapter are presented. The chapter is presented in the following sequence.

Section 4.1 Research design
Section 4.2 Instrument development and testing
Section 4.3 Data collection
Section 4.4 Chapter summary

4.1 Research design

The type or research problem investigated determines the research design and how data is collected (Kerlinger 1986). Figure 4.1 summarizes the decision process involved in the research design for this study. The following paragraphs provide the rationale of the research design of this study. Briefly, the study is a cross-sectional, non-experimental research. The data is collected by personal interview using a structured questionnaire.
4.1.1 Cross-sectional research vs. longitudinal research

Cross-sectional research attempts to capture a ‘snap shot’ of a market situation at a particular time. It involves ‘the collection of information from any given sample of population elements only once (Malhotra, Agarwal, & Peterson 1966, p. 92). On the contrary, the purpose of longitudinal research is to gain an in-depth view of the situation and the changes that take place over time. Hence, it is more costly and time consuming in collecting longitudinal data. For our study, we aim at testing a set of theoretical constructs that were developed in the US for a developing economy. Since published empirical work on marketing channels outside the US is scarce, this is an exploratory attempt, among a few others (e.g. Goldman 2001, Lee 2001, Luk 1998a, 1998b). Given the exploratory nature of the study, we considered a cross-sectional approach appropriate for the purpose.

4.1.2 Non-experimental research vs. experimental research

Non-experimental research approach is used for this study with the aim of generating a set of generalized results. External validity is sought. Experimental research has an advantage over non-experimental approach in that it provides a controlled environment which leads results with high internal validity. However,
it has relatively lower external validity because of the artificiality of the experimental universe. Since the study aims to replicate empirical findings in one country and transfer them to another country, external validity is sought. Therefore non-experimental research approach is more relevant for our purpose.

4.1.3 Survey vs. observations

Both survey and observation are prevailing methods used to collect behavioral data in consumer behavior research. However, with the observation method, it is more difficult to explain the underlying causes of observable behavior. Since this study deals with perceptual data from owners and managers in the retail business, the observation approach does not fit the purpose. A survey of key informants is one of the most common methods adopted in this type of study.

4.1.4 Personal interviewing

As mentioned above, a survey of key informants is a common approach in organization studies. Mail, telephone, Internet, and personal interview are methods available to collect key informant opinion. The personal interview is the most costly alternative among the four, in terms of cost per survey due to the additional labor cost overhead incurred for arranging scheduled interviews. However, Kerlinger (1986, p.379) comments that this method of data collection 'far overshadows the others as perhaps the most powerful and useful tool of social scientific survey research' The 'personal' touch is probably the main reason underlying the superior advantage of the method over the others. Interviewer bias could be a disadvantage in personal interview, but that can be overcome by intensive interviewer briefing and training, careful selection of interviewers, and regular checking during the process. For our study, we adopted personal interviewing method since our target respondents were small retailers. Many of them are entrepreneurs busily engaged in the day to day operation of their business and lacking motivation to spend their time on something unrelated and they do not perceive would contribute to their business. With advance solicitation
for agreement to be interviewed, the use of personal interviews helped to project an image that we are ‘serious’ in our study and their opinions are ‘treasured’.

4.2 Instrument development and testing

This section describes the three major steps involved in instrument development and testing. The first step is to define the domain of the constructs by reviewing extant literature and discussion with practitioners. The second step is to generate the items that measure the constructs and decide on the measurement format. The third step is to prepare the questionnaire and pilot testing.

4.2.1 Defining the construct domain

Literature review

This research’s focus is on marketing channel relationship (horizontal alliance) with particular attention to the use of power and its outcome. Literature related to the topic area is cross-disciplinary in scope. It encompasses literature in the following areas:

- Marketing channels (e.g. Hunt & Nevin 1974; Stern & Reve 1980; Gaski 1984; Scheer & Stern 1992; Anderson & Narus 1990; Heide 1994; Frazier 1999),
- Relationship marketing (e.g. Dwyer, Schurr, & Oh 1987; Morgan & Hunt 1994; Sheth & Parvatiyar 2000),
- Business alliances (e.g. Borys & Jemmison 1989; Bucklin & Sengupta 1993; Parvatiyar & Sheth 1992; Lambe, Spekman, & Hunt 2000)
- Business-to-business marketing (e.g. Hakansson and Snehota 1995; Ballantyne 1996; Wilson 2000; Jap 2001)
- Retailer-supplier relationship (e.g. Buchanan 1992; Brown, Lusch, and Nicholson 1995; Geyskens & Steenkamp 2000)
- Organization theory (e.g. Pfeffer and Salancik 1978; Stinchcombe 1985; Ring and Van de Van 1994; Powell 1990)
- Institutional economics (e.g. Williamson 1975, 1985)
• Sociology (e.g. Thibaut and Kelly 1959; Emerson 1962; Blau 1968; Macneil 1980; Bradach and Eccles 1989; Molm 1990)

These literatures provide a rich source of ideas for developing the research interest. They assisted the researcher to expand ‘objectivity’ by reviewing theories in different social science disciplines. For example, social exchange theory postulates that ‘dependence’ between actors is created as the consequence of goal mediation (e.g. Emerson 1962). Resource dependence theory explains ‘dependence’ between actors as the result of controlling critical resource (e.g. Pfeffer and Salancik 1978). Transaction cost economics considers dependence as a result of investing in specific assets (Heide 1994). In addition, the literature provides valuable insights to construct definition and conceptualization.

Discussion with practitioners and experts

Parallel to the literature review process, we conducted a series of interviews with practitioners and scholars to collect their opinions on how and why business firms enter into different forms of alliance arrangements. Over the period of more than a year, the initial conceptual framework of the study slowly evolved. The research focus was gradually narrowed down to channel relationship with a focus on the power construct. Eventually, a theoretical framework was developed to capture the hypothesized relationships between power, its determinants and outcomes. The framework consisted of seven latent constructs -- dependence, coercive power, non-coercive power, economic satisfaction, social satisfaction, commitment and strategic performance. The following conceptual definitions are used to capture the domain of the constructs of this study.

Dependence is defined as the degree to which a firm (e.g. tenant) is unable to replace another firm (e.g. department store) in an exchange relationship (Heide and John 1988; Kumar, Scheer and Steenkamp 1995).
Coercive power is defined as a firm’s contingent or non-contingent use of coercive influence (punishment) over another firm in the exchange relationship (Geyskens and Steenkamp 2000).

Non-coercive power is defined as a firm’s contingent or non-contingent use of non-coercive influence (rewards, assistance) over another firm in the exchange relationship (Geyskens and Steenkamp 2000).

Economic satisfaction is defined as a firm’s evaluation of the economic outcomes that flow from the exchange relationship with another firm (Geyskens and Steenkamp 2000).

Social satisfaction is defined as a firm’s evaluation of the psychosocial aspects of its exchange relationship with another firm, in that interactions with the exchange partner are fulfilling, gratifying, and facile (Geyskens and Steenkamp 2000).

Commitment is defined as the level of unity sensed to be present in a channel relationship (Forgas and Dobosz 1980; Morgan and Hunt 1994; Stern 1986).

Strategic performance is defined as the strategic benefits gained over competing exchange relationships which enable the focal partners to compete more effectively in the marketplace (Jap 2000).

4.2.2 Developing the measurement instrument

This section describes how we generated the measuring instrument and decided on the measurement scales adopted for the measures. Also, we explain the approach used to translate our questionnaire appropriate language for pilot test and data collection.
Measurement items

The body of literature on channel power and exchange relationships provides a useful basis for measurements related to the constructs under study. The constructs described above are well documented in the empirical findings on channel exchange relationship by marketing scholars. Consequently, the measuring instruments for this study are readily available from leading academic journals such as the Journal of Marketing Research, Journal of Marketing, Journal of Retailing and Journal of Business Studies. Table 4.1 summarizes the measures that are used for the latent variables of this study.

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>Abbreviation</th>
<th>Measure description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependence</td>
<td>DEP</td>
<td>3 items of 7-point scales</td>
</tr>
<tr>
<td>Coercive power</td>
<td>C_POWER</td>
<td>4 items of 7-point scales</td>
</tr>
<tr>
<td>Non-coercive power</td>
<td>N_POWER</td>
<td>4 items of 7-point scales</td>
</tr>
<tr>
<td>Economic satisfaction</td>
<td>E_SAT</td>
<td>3 items of 7-point scales</td>
</tr>
<tr>
<td>Social satisfaction</td>
<td>S_SAT</td>
<td>4 items of 7-point scales</td>
</tr>
<tr>
<td>Commitment</td>
<td>COM</td>
<td>3 items of 7-point scales</td>
</tr>
<tr>
<td>Strategic Performance</td>
<td>PER</td>
<td>3 items of 7-point scales</td>
</tr>
</tbody>
</table>

DEP scored as 1 = strongly disagree, 7 = strongly agree, items adapted from Kumar, Scheer, and Steenkamp (1995)
C_POWER, N_POWER scored as 1 = strongly disagree, 7 = strongly agree, items adapted from Geyskens and Steenkamp (2000)
E_SAT, S_SAT scored as 1 = strongly disagree, 7 = strongly agree, items adapted from Geyskens and Steenkamp (2000)
COM scored as 1 = strongly disagree, 7 = strongly agree, items adapted from Kim and Frazier (1997)
PER scored as 1 = strongly disagree, 7 = strongly agree, items adapted from Jap (1999)

Table 4.1 Latent variables, abbreviations and corresponding measure description

In order to provide our rationale for adopting the measures, it is reasonable to explain briefly how these constructs are conceptualized and operationalized in empirical studies.

(I) Dependence

There are no unanimity of opinion among marketing scholars on how dependence should be measured (Kumar, Scheer and Steenkamp 1995). An examination of existing marketing channel literature reveals that there are three
different approaches used to measure firm’s level of dependence in an exchange relationship.

El-Ansary and Stern (1972) developed the sales and profit approach, which measures the magnitude of the sales and profit that a target firm obtained from a source firm in an exchange relationship. Based on this approach, the greater the percentage of sales and profit contributed by the source firm to the target firm, the greater the target dependence on source. Another approach is the role performance approach developed by Frazier (1983b). The role performance of a firm refers to how well it carries out its role in a channel relationship as evaluated by its partner. The dependence level of one firm is driven by the role performance of the partner firm. Accordingly, when a firm’s role performance is perceived as high, the partner firm will be highly motivated to maintain the exchange relationship since the higher the perceived role performance the fewer potential alternatives would be available to replace it in the exchange relationship. Finally, Heide and John (1988) developed the specific asset approach by drawing on insights from transaction cost analysis (Williamson 1975) and dependence theory (Emerson 1962). In this approach, the dependence level of one firm is measured by the difficulty involved in replacing the partner firm due to transaction-specific investment. Dependence is heightened with an increasing level of transaction-specific investment. Transaction-specific investments refer to those investments that will have little value outside the particular exchange relationship. This the lack of replaceability, or switching costs, is a direct consequence of the immobility of the assets.

For this study, we adopted the specific asset approach, which measures level of dependence basing on replaceability. A number of empirical studies have measured dependence level based on the same notion of replaceability (e.g. Brown, Lusch, and Muehling 1983; Buchanan 1986; Heide and John 1988; Kumar, Scheer and Steenkamp 1995). The rationale of transaction-specific asset is relevant to the context of our study. Since retail business is location specific and asset specific, once a retailer starts business, retail site and assets invested (e.g.
store décor) are always immobile and cannot be used elsewhere. Therefore, the opportunity cost of replacing an exchange partner and the related switching cost is heightened in the store-tenant situation. Replaceability is a good indicator of dependence level.

We adopted the 3-item replaceability scales from Kumar, Scheer and Steenkamp (1995). These items capture the opportunity costs of the value that would be lost if the relationship ended and the switching associated with changing trade partners.

(ii) & (iii) Coercive power and non-coercive power

A firm’s power in a dyadic channel relationship is its potential for influence over the other firm’s beliefs, attitudes and behavior (Frazier 1983b). This potential is tied to the other firm’s dependence or need to maintain the channel relationship to achieve desired goals (Frazier 1983b; Emerson 1962). Two approaches commonly used to measure one firm’s influence over another firm are the power base approach and the influence strategy approach.

The power base approach focuses on the “bases of power” that rested with the source firm (the firm which possesses the source of power). The bases of power have been identified by French and Raven (1959) as reward, coercive, legitimate, referent and expert power. Following this approach, one firm will have power over another firm when it is perceived by the other firm to possess expertise, information, attractiveness, authority or the ability to mediate punishments and rewards (e.g. French and Raven 1959; Gaski and Nevin 1985).

Another way to conceptualize power is to focus on the way it is used or exercised. Power use or exercise should be distinguished from power bases since a firm can possess power without using it. Frazier and his colleagues (e.g. Frazier, Gill and Kale 1989; Frazier and Rody 1991) captured the use of power as applying coercive and non-coercive influence strategies in a contingent or non-contingent manner (Sheer and Stern 1992). A firm’s compliance is motivated by
its partner's influence strategy (e.g. coercive or non-coercive influence) and the manner in which it is applied (i.e. reward/penalty is given with condition or without condition). Thus there are four situations of power use: contingent use of coercive power, contingent use of non-coercive power, non-contingent use of coercive power, and non-contingent use of non-coercive power.

We adapted our use of power measure from Geyskens and Steenkamp (2000) with four items for the contingent use of coercive power and 4 items for the contingent use of non-coercive power. When the store attempts contingent use of coercive power, the store will link punishment with tenant's non-compliance. When the store attempts contingent use of non-coercive power, it will indicate to the tenant that an available reward will be provided only if the tenant complies.

(iv) & (v) Economic Satisfaction and Social Satisfaction

Satisfaction is the most popular construct reported in empirical studies on channel relationships (Geyskens, Steenkamp, and Kumar 1999). Until recently, satisfaction in a channel context has been treated as a unidimensional construct and defined as 'a channel member's appraisal of all outcomes of its working relationship with another firm, including economic and social outcomes' (Geyskens and Steenkamp 2000). A meta-analytical study conducted recently by Geyskens, Steenkamp, and Kumar (1999) has revealed that satisfaction is not a unidimensional construct. They found that the results of studies where satisfaction focuses primarily on economic outcomes of the relationship proved to be substantially and consistently different from the results of studies adopting a more social view of satisfaction. Subsequently, measurement instruments permitting channel researchers to make the distinction between economic and social satisfaction have been developed and tested with three samples of retailers across three industries – brewery, meat and bakery (Geyskens and Steenkamp 2000). Reliability, construct validity and nomological validity were established. The exchange partner's exercise of power and its effect on economic and social satisfaction were investigated for nomological validity of the measurement scales.
Three items on economic satisfaction and four items on social satisfaction measures were adapted from Geyskens and Steenkamp (2000).

(vi) Commitment

Commitment in channel relationships is conceptualized as a multi-component construct composed having behavioral, affective and continuance dimensions. However, there is no consensus among researchers on the operationalization of the construct. Some researchers used a global measurement scale (e.g. Anderson and Weitz 1992; Morgan and Hunt 1994) while others used multi-component constructs measures (e.g. Gundlach, Achrol, and Mentzer 1995; Brown, Lusch, and Nicholson 1995) in their empirical studies.

Recently, Kim and Frazier (1997) have reviewed the literature on commitment in channel relationship with particular attention to different types of measurement scales – facet, composite and global. Three components of distributor commitment are identified, defined, and measured (continuance, behavioral, and affective commitment). Different types of measurement scales for the construct were developed and tested. Empirical results indicate acceptable levels of reliability, convergent validity and discriminant validity. The facet scale for commitment has nomological validity with other channel constructs. It was recommended that components of continuance, behavioral, and affective commitment should be measured separately by a facet scale. However, ‘If distributor commitment is not a central construct of a study, the researcher can focus on the single component of commitment most critical to the study’ (Kumar, Scheer, and Steenkamp 1995a; Scheer and Stern 1992).

Two items from facet scale measuring affective commitment were adapted from Kim and Frazier (1997). The scale measures the level of unity sensed to be present in a channel relationship which we considered as appropriate for co-marketing alliance relationship.
(vii) Strategic Performance

Satisfaction and commitment represent the affective and behavioral consequences of exchange relationship as perceived by the exchange partner. However, the outcome of an exchange relationship should also have a strategic dimension. The fact that firms entered a collaborative relationship implies that both parties are willing to accept the risks that arise from certain amount of idiosyncratic investment and the opportunity cost of having an better alternative partner. In addition to economic performance, achieved by collaboration in exchange, partners in a relationship are also motivated by strategic returns such as prospects of growth and improved competitiveness. As such, there is a need to include a broader and more proximal set of exchange outcome measures (Jap 1999). In this respect, realized competitive advantage is an appropriate proxy measure of strategic performance for the exchange relationship.

Three items measuring realized competitive advantages were adapted from Jap (1999).

The questionnaire for this research is given in Appendix 1.

Alpha values

We also examined the alpha values reported in the empirical studies on each of the construct and compare them to the alpha values of our study (Table 4.2). All the alpha values from empirical work and from our study are higher than 0.7 with the exception of our Dependence construct which is marginally below .70 threshold. We can consider the measures are reliable.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Source of literature</th>
<th>Alpha reported in empirical studies</th>
</tr>
</thead>
</table>

67
<table>
<thead>
<tr>
<th>Measure</th>
<th>Reference</th>
<th>Score</th>
</tr>
</thead>
</table>

**Measurement format**

All the items are measured by 7-point Likert scale with "1" represents "strongly disagree, and "7" represents "strongly agree". We select 7-point scale (instead of 5-point scale) for three reasons. First, it would give respondents the opportunity to express their neutrality if they so wish. Second, it is generally acknowledged that 7-point scale or more are required when sophisticate statistical techniques are used for analysis (Malhotra 1996). Finally, it is generally recognized that respondents have difficulties in managing 9-point scales with their answers due to cognitive limitations (Churchill and Peter 1984; Malhotra 1996).
Preliminary instrument

Based on the above, an English version of the preliminary questionnaire was prepared for the pilot test. However, since data was to be collected in mainland China, the questionnaire had to be translated into Chinese to make it appropriate for the sample population. A translation procedure must meet the criterion of achieving translation equivalence, which means two individuals from different countries with the same value on some variables will score at the same level on the same test (Douglas and Craig 1983). We adopted back translation, the most commonly used translation technique (Malhotra 1996). The questionnaire was translated into Chinese by the researcher. Since there are subtle differences in Chinese language used in Hong Kong, Taiwan, Singapore and mainland China, two marketing scholars from mainland China were invited to assess the clarity, accuracy and naturalness of the Chinese language. Another marketing scholar, who is well versed in both English and Chinese languages, then translated the Chinese version back into English.

Pilot test

Two rounds of questionnaire pretesting were conducted in the sampling cities, Guangzhou and Shanghai. In the first round, six pilot interviews were conducted with two senior retail managers and four owners of small retail business in Guangzhou. Their comments and suggestions for improvement were used to revise the survey. A second pretest was conducted with six more managers from different retail business in Shanghai to assess the survey. Results indicated that no further revision was needed.

Final instrument

The final instrument used for data collection contained three sections (see the Appendix). The first section, Prior History of Business Relations, collected information about the relationship history of the exchange partners. The second section, Relationship Characteristics, collected respondents' perceptual opinions on the seven latent variables – Dependence, Coercive Power, Non-coercive Power, Economic Satisfaction, Social Satisfaction, Commitment and Strategic
Performance. The final section, Background of Respondents, collected demographic data on the respondent and the company.

4.3 Data collection

4.3.1 Sample size

For this study, firm-based personal interview is used for data collection and structural equation modeling (SEM) (see Chapter 5 for details) is used for data analysis. The researcher has to balance the trade off between the two. Since personal interview is time consuming and high cost, a smaller sample size is preferred. However, the application of structural equation modeling demands that a model has to be identified in order to meet computation requirement and to improve model parsimony (Section 5.4.4). The rule of thumb recommended for SEM computation is a sample size of 200 (Hair et al 1998) though Stevens (1996) argued that a sample of at least 400 is necessary to avoid misspecification errors. Considering all the pros and cons, we decided to conduct 330 personal interviews in the two sampling cities.

4.3.2 Sampling process and data collection

Two major cities in China, Shanghai and Guangzhou, were selected as the setting for this study. Both cities are large urban conurbations, Shanghai and Guangzhou each having populations of more than 10 million. They also enjoy some of the highest economic growth rates in the country and they all have a large number of department stores. Lists of all the department stores in these cities were obtained from the local branches of the Ministry of Internal Trade and they were all solicited to participate in the study by providing names of their sub-tenant retailers. A random sample of 330 sub-tenants was drawn from the 1500 names provided by the department stores. With the introduction and support from the department stores, all sub-tenants agreed to participate in the study and arranged an interview with the manager or owner of their shop. Where personal interview was not possible on the spot questionnaires were dropped off and the interviewer arranged to meet the respondent at a later date to go through the questionnaire.
together. 308 interviews were completed between the period March to September 2001, a response rate of 93%. The interviewees were either shop managers or owners of the stores. Philips (1981) has indicated that perceptions of channel relations may vary according to the position of the respondent in the firm being studied. Since most of the sub-tenant retailers are small and medium size companies, the shop manager or the owner were the only persons who dealt with both internal and external matters. In such situation, single informant bias appears not to be a major problem in this study (Brown, Lusch and Muehling 1983; Frazier and Sheth 1985). The respondents had been working in their companies for five years, on average, and therefore possessed sufficient knowledge of the retail partnership.

4.4 Summary and conclusion

This chapter begins with an outline of the research design of this study. The rationale for using a cross-sectional, non-experimental research design and personal interview with structured questionnaire has been explained. We then provided a detailed description of the process of instrument development and testing. The richness of the extant literature on channel exchange relationship allowed us to draw items of measure for all our latent constructs. In addition to the relevance of the channel context, we also examined the conceptualization and operationalization of these constructs to ensure that their measures were appropriate to our study. Reliability and validity were also noted. The initial questionnaire was pilot tested with twelve retailers in the sampling cities. Modifications on the instrument were made with the feedback from pilot test. Data collection was carried out, after deciding the sample size, between March and September 2001. Three hundred thirty retail tenants were selected through random sampling and three hundred and eight of them were interviewed. In the next chapter, we will describe in detail the data analysis process and the empirical results with the application of structural equation modeling.
CHAPTER 5

EMPIRICAL RESULTS

This chapter presents the empirical results of this study. The first section (section 5.1) provides descriptive statistics of the sample data. The sections that follow (section 5.2 to 5.6) discuss in detail how structural equation modeling (SEM) is applied to the hypothesized model and how the model is assessed and modified. The final section summarizes the results and conclusions drawn from the analysis. The chapter is presented in the following sequence.

Section 5.1 Descriptive statistics.
Section 5.2 Rationale for the use of SEM and LISREL statistical package.
Section 5.3 Concept of SEM.
Section 5.4 Steps in SEM.
Section 5.5 Model fit assessments
Section 5.6 Model stability
Section 5.7 Summary and conclusion

5.1 Descriptive Statistics

This section briefly presented the preliminary results obtained from the sample data.

5.1.1 Data examination

A total of 330 questionnaires were distributed. Twenty-two retailers declined the interview after a second thought. Three hundred and eight retailers were interviewed. Preliminary check on the questionnaire found six cases were completed by respondents who had less than 1 year working experience in the
retail business concerned. These respondents were disqualified due to their limited experience and knowledge of the company. The six questionnaires were discarded leaving 302 usable questionnaires (89% response rate). The high response rate was accounted for the use of personal interviews for data collection. The questionnaires were then coded for preliminary analysis.

The accuracy of data entry was checked by examining the frequency of out-of-code responses on all survey items. Coding errors found were corrected by referring to answers in the original questionnaire. The data set was also examined for missing values and 7 cases were identified. Since the percentage of missing case was small, Listwise deletion was appropriate and employed to delete the cases (Hair et al 1998). The sample composition did not change after the deletion. The final sample contained 295 usable cases with 128 samples (43%) for Guangzhou and 167 samples (57%) from Shanghai.

5.1.2 Sample characteristics

Table 5.1 describes the characteristics of the sample. Small retailers accounted for about 70% of the sample. These were retailers with less than 50 square meters retail space and having less than 5 employees per outlet. The rest (roughly 30%) of the sample was medium size retailers. The merchandise of these retailers consisted of Clothing products (apparel, footwear and fashion accessories) 36%, electronic products 21%, household products 24%, food 10%, others (e.g. stationeries, toys, gift items) 9%. The spread of the merchandise provided a reasonable representation of the products sold in department stores.
<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail space of subtenants</td>
<td></td>
</tr>
<tr>
<td>(1) &lt; 50 sq. m.</td>
<td>216 (73%)</td>
</tr>
<tr>
<td>(2) 50 – 100 sq. m.</td>
<td>41 (14%)</td>
</tr>
<tr>
<td>(3) &gt; 100 sq. m.</td>
<td>38 (13%)</td>
</tr>
<tr>
<td>Retail products</td>
<td></td>
</tr>
<tr>
<td>(1) Clothing, footwear and fashion accessories</td>
<td>105 (36%)</td>
</tr>
<tr>
<td>(2) Electronics</td>
<td>62 (21%)</td>
</tr>
<tr>
<td>(3) Household products</td>
<td>71 (24%)</td>
</tr>
<tr>
<td>(4) Food</td>
<td>30 (10%)</td>
</tr>
<tr>
<td>(5) Others</td>
<td>27 (9%)</td>
</tr>
<tr>
<td>Number of employee per shop</td>
<td></td>
</tr>
<tr>
<td>(1) &lt; 5 employees</td>
<td>210 (71%)</td>
</tr>
<tr>
<td>(2) 5-9 employees</td>
<td>54 (18%)</td>
</tr>
<tr>
<td>(3) &gt;10 employees</td>
<td>31 (11%)</td>
</tr>
</tbody>
</table>

Table 5.1 Profiles of retail respondents

5.2 Rationale for using SEM

The conceptual model for this study is presented in Chapter 3. It consists of seven latent constructs, each with multiple measurement items. To test the research hypotheses would imply investigating relationships between latent constructs that can both act as dependent and independent variables. For example, Economic Satisfaction construct is a dependent variable to Coercive Power construct while at the same time, it is an independent variable of Commitment. Considering such complexity, the statistical tool which has the ability to estimate multiple and interrelated relationships between latent constructs, whilst accounting for the measurement errors in the estimation process is structural equation modeling (SEM) (Hair, Anderson, Tatham, and Black 1988). In contrast with other multivariate techniques, SEM estimates a series of separate, but interdependent, multiple equations simultaneously.

SEM is also known as covariance structure analysis or simply LISREL analysis. The term LISREL is an acronym of Linear Structural Relationships. It is a computer program which was developed by Karl G. Jöreskog and Dag Sörbom to do covariance structural analysis. The program has become so widespread use
in social science disciplines that covariance structural models are often referred to as LISREL models. Moreover, all SEM techniques are distinguished by two characteristics: (1) estimation of multiple and interrelated dependence relationships, and (2) the ability to represent unobserved concepts in these relationships and account for measurement error in the estimation process (Hair, Anderson, Tatham, and Black 1988).

Baumgartner and Homburg (1996) have reported in their review on the use of SEM in marketing research that 85 percent of authors used LISREL to perform their analysis. Since the statistical computer program is considered as a highly flexible program catered for a number of research situation (Hair, Anderson, Tatham, and Black 1988). LISREL version 8.20 using the SIMPLIS command language (Jöreskog, Karl G and Dag Sörbom 1998) is adopted to perform the analysis on this study.

5.3 The Concept of Structural Equation Modeling (SEM)

SEM or covariance structure analysis is a multivariate statistical technique that combines (confirmatory) factory analysis and econometric modeling for the purpose of analyzing hypothesized relationships among latent (unobserved) variables measured by manifest (observed) indicators (Diamantopoulos and Siguaw 2000). A full covariance structure model comprises of two parts – the measurement model and the structural model (also referred as the latent variable model) (Bollen 1989). The measurement model describes how the latent constructs in the structural model are operationalized or measured by corresponding indicators. The structural model depicts the relationships between the latent variables and indicates the amount of unexplained variance.

SEM is confirmatory in nature. It seeks to confirm that the hypothesized relationships among latent variables and between latent variables and their corresponding indicators are consistent with the empirical data. The estimation process is achieved by comparing the computed covariance matrix implied by the hypothesized model (Σ) to the actual covariance matrix (S) derived from the
sample empirical data. The objective of the analysis is to find estimates of parameter values such that $\Sigma$ is as close as possible to the sample variances and covariance contained in $S$, i.e. to minimize the residuals which is the difference $(S-\Sigma)$. $(S-\Sigma)$ is known as the residual matrix. Ideally, values in the residual matrix equal to zeros, indicating a perfect match of $\Sigma$ to $S$. However, this is seldom achieved in practice.

**5.4 Steps in SEM**

Diamantopoulos and Siguaw (2000) recommend an eight-stage approach (Figure 5.1) to SEM using LISREL. Basically that is similar to the approach recommended by Hair, Anderson, Tatham, & Black (1988).

1. MODEL CONCEPTUALIZATION
2. PATH DIAGRAM CONSTRUCTION
3. MODEL SPECIFICATION
4. MODEL IDENTIFICATION
5. PARAMETER ESTIMATION
6. ASSESSMENT OF MODEL FIT
7. MODEL MODIFICATION
8. MODEL CROSS VALIDATION

*Figure 5.1 Steps in LISREL modeling*
Source: Diamantopoulos and Siguaw (2000), Introducing LISREL, Sage. P.7

**5.4.1 Model Conceptualization**

Model conceptualization is concerned with the development of the latent variable model which describes relationships among the latent variables with the use of a path diagram. The process involves searching and synthesizing relevant literatures to establish theory-based hypotheses that distinguish the direct and indirect effects of one variable on another. The model also encapsulates the structural equations that summarize the relationships among the latent variables.
Chapter 3 has presented the path diagram and the conceptual underpinnings of the theoretical model developed for this study.

5.4.2 Path diagram construction

The path diagram is a visual presentation of the pattern of relationship among the latent variables. It is also a pictorial representation of a system of simultaneous equations. It shows the relation between all variables, including disturbances and errors. Variables are classified as exogenous (independent) or endogenous (dependent) variables. Chapter 3 presents the path diagram (Fig. 3.1. P. 42) of this study. From the diagram, DEPENDENCE is the only exogenous variable while the rest are endogenous variables. The terms exogenous and endogenous are model specific. For example, DEPENDENCE is an exogenous variable in the context of this study and it could be an endogenous variable in other studies. Using notations commonly used in LISREL, Fig. 3.1 will be presented in the following manner (Fig. 5.2(a)):

\[ X_1 = \text{Dependence} \quad Y_2 = \text{Social Power} \quad Y_4 = \text{Social Satisfaction} \]
\[ Y_1 = \text{Coercive Power} \quad Y_3 = \text{Economic Satisfaction} \quad Y_5 = \text{Commitment} \]
\[ Y_6 = \text{Strategic Performance} \]

Fig. 5.2(a) Path diagram of the model in LISREL notation
From the model, it can be seen that there are no reciprocal (i.e. two-way) linkages among the latent variables. In effect, all single-headed arrows denote a one-way causal flow relationship among variables. Therefore, the model is a recursive model. According to Bollen (1989, P.81), recursive models are systems of equations that contain no reciprocal causation or feedback loops. When this is true, it is possible to write the coefficient matrix for latent endogenous variables (B) as a lower triangle matrix. Also, the covariance matrix of ζ (Ψ) is diagonal. Using this study as an example, the variables are Dependence (X1), Coercive power (Y1), Non-coercive Power (Y2), Economic Satisfaction (Y3), Social Satisfaction Y4), Commitment (Y5) and Strategic (Y6). The disturbances (ζ’s) are uncorrelated across equations. The matrix equation for the model is:

\[
\begin{bmatrix}
0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 \\
\end{bmatrix}
\begin{bmatrix}
\beta_{31} & \beta_{32} & 0 & 0 & 0 & 0 \\
\beta_{41} & \beta_{42} & 0 & 0 & 0 & 0 \\
0 & 0 & \beta_{51} & \beta_{52} & 0 & 0 \\
0 & 0 & 0 & 0 & \beta_{61} & 0 \\
\end{bmatrix}
\begin{bmatrix}
Y1 \\
Y2 \\
Y3 \\
Y4 \\
Y5 \\
Y6 \\
\end{bmatrix}
+ 
\begin{bmatrix}
\gamma_{11} \\
\gamma_{21} \\
0 \\
0 \\
0 \\
0 \\
\end{bmatrix}
\begin{bmatrix}
X1 \\
\end{bmatrix}
+ 
\begin{bmatrix}
\zeta_1 \\
\zeta_2 \\
\zeta_3 \\
\zeta_4 \\
\zeta_5 \\
\zeta_6 \\
\end{bmatrix}
\]

Since B is lower triangular and Ψ is diagonal, the model is recursive.

5.4.3. Model specification

This step involves translating the path diagram into two sets of equations, one set for the structural model and the next set for the measurement model. The structural equation for the latent variable model can be presented as:

\[ \eta = B\eta + \Gamma\xi + \zeta \]

Where

B is the \((m \times m)\) coefficient matrix for latent endogenous variables.
$\Gamma$ is the $(m \times n)$ coefficient matrix for latent exogenous variables.

$\eta$ is a $(p \times 1)$ vector of endogenous variables.

$\xi$ is a $(q \times 1)$ vector of exogenous variables.

$\zeta$ is a $(p \times 1)$ vector of errors in the equations.

The implicit measurement model for structural equations with observed variables is

$$Y = BY + \Gamma X + \zeta$$

Where

- $Y = p \times 1$ vector of manifest (observed) variables
- $X = q \times 1$ vector of manifest (observed) variables

$Y$ and $X$ are assumed to exactly represent the latent $\eta$ ($Y = \eta$) and $\xi$ ($X = \xi$) variables.

Using covariance algebra, the structural equations for the model under this study are:

$$Y1 = \gamma_{11}X1 + \zeta_1$$

$$Y2 = \gamma_{21}X1 + \zeta_2$$

$$Y3 = \beta_{31}Y1 + \beta_{32}Y2 + \zeta_3$$

$$Y4 = \beta_{41}Y1 + \beta_{42}Y2 + \zeta_4$$

$$Y5 = \beta_{53}Y3 + \beta_{54}Y4 + \zeta_5$$

$$Y6 = \beta_{65}Y5 + \zeta_6$$

The SIMPLIS command language alleviates the need to use mathematical representation in the equations. To provide input command to the program, one can simply name the variables and specify their relationships using words and
basic mathematical symbols such as "=" signs and arrows to denote relationships between variable. For example,

To express the mathematical relationship "Y = bX + e" (where X is the independent variable DEPENDENCE, Y is the dependent variable COERCIVE POWER, b is the coefficient, and e is the error).

The SIMPLIS command would be "C_POWER = DEP" (C_POWER and DEP are abbreviations of Coercive Power and Dependence)

The following are the equations for the model of this study expressed in plain language.

**Structural equations**

Non-coercive = \( \omega_1 \) (Dependence) + Error  
Coercive Power = \( \omega_1 \) (Dependence) + Error  
Economic Satisfaction = \( \omega_2 \) (Coercive Power), + \( \omega_3 \) (Non-coercive Power)  
+ Error  
Social Satisfaction = \( \omega_2 \) (Coercive Power), + \( \omega_3 \) (Non-coercive Power) + Error  
Commitment = \( \omega_4 \) (Economic Satisfaction), + \( \omega_5 \) (Social Satisfaction) + Error  
Strategic Performance = \( \omega_6 \) (Commitment) + Error

**Measurement equations for the exogenous variable**

Item 1 = \( \omega_{11} \) (Dependence) + Error  
Item 2 = \( \omega_{12} \) (Dependence) + Error  
Item 3 = \( \omega_{13} \) (Dependence) + Error

**Measurement equations for the endogenous variables**

Item 4 = \( \omega_{21} \) (Coercive Power) + Error
Item 5 = \( \omega_{22} \) (Coercive Power) + Error
Item 6 = \( \omega_{23} \) (Coercive Power) + Error
Item 7 = \( \omega_{24} \) (Coercive Power) + Error

Item 8 = \( \omega_{31} \) (Non-coercive Power) + Error
Item 9 = \( \omega_{32} \) (Non-coercive Power) + Error
Item 10 = \( \omega_{33} \) (Non-coercive Power) + Error
Item 11 = \( \omega_{34} \) (Non-coercive Power), Error
Item 12 = \( \omega_{41} \) (Economic Satisfaction) + Error
Item 13 = \( \omega_{42} \) (Economic Satisfaction) + Error
Item 14 = \( \omega_{43} \) (Economic Satisfaction) + Error

Item 15 = \( \omega_{51} \) (Social Satisfaction) + Error
Item 16 = \( \omega_{52} \) (Social Satisfaction) + Error
Item 17 = \( \omega_{53} \) (Social Satisfaction) + Error
Item 18 = \( \omega_{54} \) (Social Satisfaction) + Error

Item 19 = \( \omega_{61} \) (Commitment) + Error
Item 20 = \( \omega_{62} \) (Commitment) + Error

Item 21 = \( \omega_{71} \) (Strategic Performance) + Error
Item 22 = \( \omega_{72} \) (Strategic Performance) + Error
Item 23 = \( \omega_{73} \) (Strategic Performance) + Error

Where \( \omega \) = parameters

5.4.4 Model identification

The application of structural equation techniques involves the estimation of unknown parameters (e.g. path coefficients) based on the population covariance
matrix $\Sigma$ of the observed variables ($Y$ and $X$). The parameters that need to be estimated are in the covariance matrix $\Sigma(\theta)$, where $\theta$ contains the free and non-redundant parameters of $B$, $\Gamma$, $\Phi$, and $\Psi$. $\Sigma(\theta)$ is the covariance matrix written as a function of the free model parameters in $\theta$.

The goal of identification is to solve for the unknown parameters of $\theta$ in terms of the “known” parameters, which are the elements of $\Sigma$, the population covariance matrix of the observed variables. If an unknown parameter in $\theta$ can be written as a function of one or more elements of $\Sigma$ that parameter is identified. If all unknown parameters in $\theta$ are identified, then the model is identified (Bollen 1989, P.89).

In simple language, identification refers to whether there is a sufficient number of equations (Information) to “solve for” each of the parameters (unknowns) to be estimated in the model. A model is overidentified when the number of equations exceeds the number of unknowns. A model is just-identified or exactly identified when the number of equations composing the model exactly equals the number of unknowns. Models can be underidentified when the number of unknowns exceeds the number of equations. In such cases, no solution is possible. (Kelloway 1998).

A just-identified model gives one unique solution that fits the observed correlation matrix of the population. However, that matrix also contains other sources of error (e.g. measurement). Therefore, the ideal situation is to have an overidentified model that provides a number of possible solutions. The researcher’s task is to select the solution that comes closest to explaining the observed data (Kelloway 1998).

Although it is possible to assess identification by solving the $\Sigma = \Sigma(0)$ equation through algebraic means, such work would become tedious and error-prone with the growing complexity of the model. Bollen (1989) introduced several useful procedures for assessing identification. Table 5.2(a) summarizes the
identification rules highlighted in Bollen’s text (1989, P.104): the $t$-rule, the Null B Rule, the recursive rule and the rank and order conditions.

<table>
<thead>
<tr>
<th>Identification Rule</th>
<th>Evaluates</th>
<th>Requirement</th>
<th>Necessary Condition</th>
<th>Sufficient Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-Rule</td>
<td>model</td>
<td>$t \leq (\frac{1}{2})(p+q)(p+q+1)$</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Null B Rule</td>
<td>model</td>
<td>$B=0$</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Recursive Rule</td>
<td>model</td>
<td>$B$ triangular</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\Psi$ diagonal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order Rule</td>
<td>equation</td>
<td>restrictions $\geq p-1$</td>
<td>yes$^a$</td>
<td>no</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\Psi$ free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rank Condition</td>
<td>equation</td>
<td>rank $(C_i) = p - 1$</td>
<td>yes$^a$</td>
<td>yes$^a$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\Psi$ free</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$This characterization of the rank and order conditions assumes that all elements in $\Psi$ are free.

Table 5.2(a) Identification Rules for Structural Equations with Observed Variables Assuming No Measurement Error ($y = By + f x + \zeta$)


Since the model of this study is a recursive model (section 5.4.2), the discussion will focus on the $t$-rule and the Recursive Rule, which are appropriate for assessing recursive models. The Null B Rule and the rank and order conditions are not applicable here since these approaches have assumptions that cater for models not falling under the recursive category. For example, the Null B Rule specifies a condition that the $B$ coefficient matrix equals zero, a situation where no endogenous variable affects any other endogenous variables in the model. Unlike the Null B Rule, the Recursive Rule does not require $B = 0$. For the recursive rule to apply, the $B$ matrix must be triangular, and the $\Psi$ matrix must be diagonal. Similarly, the rank and order conditions assume that $\Psi$ contains no restrictions. That is, no element of $\Psi$ is constrained to a fixed value (e.g. zero) or to any other constraint. Setting a condition on the $\Psi$ matrix (as in the recursive model) would make the order rule and the rank rule no longer necessary (Bollen 1989).
The t-rule is the most general rule and applies to most models. The t-rule is a necessary but not sufficient condition for identification. However, this necessary condition is very useful as it helps to quickly discover underidentified models. In general, a covariance matrix for \( p + q \) variables has \((1/2)(p + q)(p + q + 1)\) nonredundant elements. The t-rule for identification is that the number of nonredundant elements in the covariance matrix of the observed variables must be greater than or equal to the number of unknown parameters in \( \Theta \):

\[
t \leq (\frac{1}{2})(p + q)(p + q + 1)
\]

where \( t \) is the number of free parameters (unknowns) in \( \Theta \). The right-hand side of the equation is the number of nonredundant elements in \( \Sigma \). This leads to \((\frac{1}{2})(p + q)(p + q + 1)\) equations in \( t \) unknowns. If the number of equations exceeds \( t \), the identification of \( \Theta \) is possible and the t-rule is met.

For this study, the number of equations equals 28. The formula \((1/2)(p + q)(p + q + 1)\) leads to \((1/2 \times 7 \times 8) = 2\), where \( p \) = the number of endogenous indicators, \( q \) = the number of exogenous indicators. The number of unknowns or the number of estimated coefficients in the proposed model (value of \( t \)) equals 17 (2 Lambda-X coefficients + 7 Beta coefficients + 6 PSI structural errors + 1 variance for the exogenous variable X). The t-rule is met and the model is overidentified.

The Recursive Rule is a sufficient condition for model identification though it is not a necessary one. For the recursive rule to apply, the B coefficient matrix can be written as a lower triangular matrix, and the \( \Psi \) matrix must be diagonal. If both conditions hold, then the model is identified. A property of all recursive models is that for a given equation, the disturbance term (\( \zeta \)) is uncorrelated with the explanatory variables (X and Y). Bollen (1989, P.96-97) provides a detailed treatment to demonstrate that \( B, \Phi, \Gamma, \) and \( \Psi \) are identified in
recursive models. Section 5.4.2 has demonstrated that the model of this study is a recursive one. The model is therefore identified.

5.4.5 Parameter estimation

If the model is properly identified, parameter estimation can take place. In this step, LISREL will generate an implied (i.e. model-based) covariance matrix $\Sigma(\theta)$ that is equivalent to the observed (i.e. actual) covariance matrix $\Sigma$ through an iterative procedures in the Maximum Likelihood (ML) method. In LISREL 8.20, seven methods can be used to estimate the parameters of a model. These methods are classified as limited information techniques (e.g. Instrumental Variables technique and Two-stage Least Square) and full-information techniques (e.g. Generalized Least Squares, and Maximum Likelihood). The former group of methods estimate each parameter equation separately with using information from other equations in the model. The latter group of methods estimates the entire system of equations simultaneously and has the advantage that ‘the estimation of each parameter utilizes the information provided by the entire system’ (Long 1983). Full-information techniques are more statistically efficient than limited-information methods. Maximum Likelihood (ML) method, one of the full-information techniques, is adopted for this study. ML is the default estimation method in LISREL 8.20 program. It is the most widely used method in practice as many other computer packages have also adopted ML as the default method (Baumgartner and Homburg 1996)

5.4.6 Assessment of model fit

Following parameter estimation is the assessment of model fit. The purpose of assessing a model’s overall fit is to determine the degree to which the model as a whole is consistent with the empirical data. A model fits when the implied (model-based) covariance matrix is equivalent to the sample covariance matrix ($S$) of the observed data. Various fit indices are available. There are three categories of fit measures – absolute fit measures, incremental fit measures and parsimonious fit measures (Hair et al 1998).
Absolute fit measures determine the degree to which the overall model (structural and measurement models) predicts the observed covariance or correlation matrix. Often used absolute fit measures include chi-square test ($\chi^2$), goodness-of-fit index (GFI), standardized root mean square residual (RMR), root mean square error of approximation (RMSEA), expected cross-validation index (ECVI).

Incremental fit measures compares the proposed model to some baseline model, most often referred to as the null model or independence model. Common examples in this group include adjusted goodness-of-fit index (AGFI), Non-normed fit index NNFI), normed fit index (NFI), and comparative fit index (CFI).

Parsimonious fit measures relate the goodness-of-fit of the model to the number of estimated coefficients (parameters) required to achieve this level of fit. Their basic objective is to diagnose whether model fit has been achieved by “over fitting” the data with too many coefficients. As there is no statistical test available for these measures, their uses are mainly confined to compare models. Examples of measures include normed chi-square ($\chi^2/df$), Akaike’s information criterion (AIC), parsimonious normed fit index (PNFI) and parsimonious good-of-fit index (PGFI).

Since ‘no one fit index serves as a definite criterion for testing a hypothesized model. An “ideal” fit index just does not exist’ (Schumacker and Lomax, 1996), the researcher should evaluate the proposed model on a series of measure from each type (Hair et al 1998). For practical purpose, the use of chi-square test in conjunction with a number of the usual ones such as RMSEA, standardized RMR, GFI, AGFI and CFI indices should be sufficient to reach an informed decision concerning the model’s overall fit (Diamantopoulos and Siguaw 2000). In evaluating the set of measures, general thresholds are established and applicable to indicate models with acceptable fit. Table 5.2 (b) gives a list of the ‘standards’ for the more commonly use fit indices.
<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Description</th>
<th>Acceptable Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>Test of null hypothesis that the model fits the population data perfectly. Nonsignificant $\chi^2$ indicates model fit.</td>
<td>$p &gt; .05$</td>
</tr>
<tr>
<td>GFI</td>
<td>An indicator of the relevant amount of variances and covariances accounted for by the fitted model to show how closely comes to perfectly reproducing the sample covariance matrix. Higher value indicates better fit.</td>
<td>$\geq .90$</td>
</tr>
<tr>
<td>RMR</td>
<td>An indicator measured by ‘fitted residuals’ which indicates the difference between a sample covariance and a fitted (implied) covariance. Lower value indicates better fit.</td>
<td>$\leq .05$</td>
</tr>
<tr>
<td>RMSEA</td>
<td>A measure representing how well the fitted model approximates the population covariance matrix per degree of freedom. Lower value indicated better fit.</td>
<td>$\leq .05$ to .08</td>
</tr>
<tr>
<td>ECVI</td>
<td>The goodness-of-fit expected in another sample of the same size. The measure assesses whether a model is likely to cross-validate across samples of the same size. Measure used in comparing between models.</td>
<td>No acceptable range of values</td>
</tr>
<tr>
<td>AGFI</td>
<td>This is the GFI adjusted for the degrees of freedom in the model</td>
<td>$\geq .90$</td>
</tr>
<tr>
<td>NNFI</td>
<td>A comparative index between the proposed and null models adjusted for the degree of freedom. Higher value indicates better fit.</td>
<td>$\geq .90$</td>
</tr>
<tr>
<td>NFI</td>
<td>Comparative index between the proposed and null models not adjusted for the degrees of freedom. Higher value indicates better fit.</td>
<td>$\geq .90$</td>
</tr>
<tr>
<td>CFI</td>
<td>Comparative index between the proposed and null models adjusted for the degrees of freedom. Higher value indicates better fit.</td>
<td>$\geq .09$</td>
</tr>
<tr>
<td>$\chi^2/df$</td>
<td>The ratio of chi-square divided by degrees of freedom. The measure provides two ways to assess inappropriate models: (1) values less than 1.0 indicate an “overfitted” model. Value greater than 5 indicates an “underfitted” model.</td>
<td>1 to 2, upper threshold $\leq 2$ to 5</td>
</tr>
<tr>
<td>AIC</td>
<td>Smaller positive values indicate parsimony, used in comparing alternative models.</td>
<td>n.a.</td>
</tr>
<tr>
<td>PNF1</td>
<td>Higher values indicate better fit, used only in comparing between alternative models.</td>
<td>n.a.</td>
</tr>
<tr>
<td>PGFI</td>
<td>A respecification of the GFI with higher values reflecting greater model parsimony. Used in comparing between models.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Table 5.2(b) Fit indices and ‘acceptable’ fit guidelines
5.4.7 Model modification

In this step, the model is examined to determine whether model modification is necessary in the light of the results obtained in fit assessment. This involves the comparison of model results to determine the best fitting model from a set of competing models or nested models. Nested models are models that have the same number of constructs but differ in terms of the number or types of causal relationships represented (Hair et al 1995, p.620). Models that are having a different number of indicators or constructs are nonnested or competing models.

The objective of model comparison is to find the “best” from among the set of models using fit indices as the assessment criteria. For nested models, the usual types of goodness-of-fit indices (Table 5.2(b)) are used for comparison. However, for nonnested models, since the null model is not the same for the competing models, therefore only parsimonious fit measures, PNFI and AIC can be used for comparison (Hair et al 1995, p.688).

Modification or re-specification of a model involves adding or deleting some estimated paths from the original model with the aim to enhance the model fit. It is important that any alterations made to the model are supported by theory other than simply data-driven.

Researchers can obtain initial diagnostic information by examining the standardized residual statistics from the residual matrix, (S-Σ), residual values represent difference between the sample covariance and fitted covariance. Standardized residuals can be interpreted as standard normal deviates (i.e. Z-scores) with absolute values greater than 2.58 being considered ‘large’

A large positive residual value indicates that the model underestimates the covariance (underfitting). Therefore the model should be modified through the addition of paths (i.e. by freeing of parameters). Hence a path could be added between the two variables. In fact, the ‘Modification Indices’ section of LISREL output provides recommendations on adding paths between variables. The output also provide the corresponding change in chi-square value with the specific path added. In a similar fashion, a large negative residual (i.e. greater than –2.58) indicates that the model overestimates a given covariance (overfitting). Therefore, the model should be modified, given sound theoretical ground, through the deletion of paths.

5.4.8 Model cross-validation

The final stage of the process is model cross-validation. This involves fitting the model either to a fresh data set or a validation sub-sample obtained through split sample procedures. In this study, a split sample methodology was used for cross-validating the model.

5.5 Model fit assessment and test results

Model fit can be assessed by first evaluating the measurement model by assessing the measures for each construct and then the overall measurement model. Next, one moves to evaluate the structural model with the following process: (i) Looking for ‘offending’ estimates. If no irregularities were detected in the data, one moves to the next step. (ii) Evaluating the overall model fit using goodness-of-fit indices. If the model passed the fit indices test, one then proceeds to the third step by assessing the structural model fit by examining the estimated parameters for practical and theoretical implications.
5.5.1 Assessing the measurement model

In assessing the measurement model, confirmatory factor analysis (CFA) is used to assess factor loadings, construct reliability and variance extracted of the latent variables. One can conduct CFA on individual constructs. Next, it needs to run CFA on the overall model followed by composite reliability and variance extracted results. The following paragraphs describe the process and summarize the result of the analysis.

CFA results for individual constructs

Since each of the latent variables needs to have 4 measurement items to be identified. Latent variables measured by 3-items or less will be just identified (Fig. 5.2(b)) or underidentified. Consequently, these latent constructs are estimated jointly with another latent constructs to achieve identification.

![Diagram of measurement model](image.png)

Latent variables having only three corresponding measurement items would only have six equations to estimate six coefficients with zero degrees of freedom i.e. just identified. As shown in the above model, it has only three loadings ($\lambda_1$, $\lambda_2$, $\lambda_3$) and three error variances ($\text{VAR}\delta_1$, $\text{VAR}\delta_2$, $\text{VAR}\delta_3$), adding up to six parameters to be estimated (i.e. $t = 6$). The covariance matrix, also contains six non-redundant elements ($\text{VAR}(\chi_1)$, $\text{VAR}(\chi_2)$, $\text{VAR}(\chi_3)$, $\text{COV}(\chi_1, \chi_2)$, $\text{COV}(\chi_1, \chi_3)$, $\text{COV}(\chi_2, \chi_3)$), or six pieces of information. Therefore the model is just-identified (i.e. $t = s/2$) with zero degree of freedom.

Fig. 5.2(b) A just identified model
Three constructs - Dependence, Economic Satisfaction, and Performance, are just identified. One construct – commitment, is underidentified. Consequently, the CFA is conducted in the following manner: Dependence with Coercive Power and Non-coercive Power, Economic Satisfaction with Social Satisfaction, Commitment with Performance. Table 5.3, 5.4 and 5.5 report the results of the measurement model.

<table>
<thead>
<tr>
<th>Item</th>
<th>Dependence</th>
<th>Coercive Power</th>
<th>Non-coercive Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>.52*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.16)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.57***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td></td>
<td>.69</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td></td>
<td>.84</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6</td>
<td></td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q7</td>
<td></td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q8</td>
<td></td>
<td></td>
<td>.66</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9</td>
<td></td>
<td></td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q10</td>
<td></td>
<td></td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q11</td>
<td></td>
<td></td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fit Statistics

$\chi^2 = 49.63 \ (df = 41, \ p = .17)$
GF1 = .97
CF1 = .99
NNFI = .98
RMSEA = .0014
Standardized RMR = 0.05

Table 5.3  CFA: Dependence, Coercive Power and Non-coercive Power.
*  standardized parameter loadings
** Standard error
*** t-value

Table 5.3 showed that all parameter loadings for Dependence, Coercive Power and Non-coercive Power are significant (p<.001, critical t-value = 3.27). The standard errors (in parenthesis) are relatively small. All fit indices are within recommended guidelines listed in Table 5.2

Covariance Structure Analysis
LAMBDA-X (Standardized parameter estimate, standard error, and t-value)

<table>
<thead>
<tr>
<th>Item</th>
<th>Economic Satisfaction</th>
<th>Social Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q12</td>
<td>.63*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.09)**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.51***</td>
<td></td>
</tr>
<tr>
<td>Q13</td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.21</td>
<td></td>
</tr>
<tr>
<td>Q14</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.23</td>
<td></td>
</tr>
<tr>
<td>Q15</td>
<td></td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.66</td>
<td></td>
</tr>
<tr>
<td>Q16</td>
<td></td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.53</td>
<td></td>
</tr>
<tr>
<td>Q17</td>
<td></td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13.28</td>
<td></td>
</tr>
<tr>
<td>Q18</td>
<td></td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.88</td>
<td></td>
</tr>
</tbody>
</table>
Fit Statistics

χ² = 36.65 (df = 13, P = .00047)
GFI = .96
CFI = .96
NNFI = .94
RMSEA = .051
Standard RMR = 0.04

Table 5.4 CFA: Economic Satisfaction and Social Satisfaction

* Standardized parameter loadings
** Standard error
*** t-value

Table 5.4 showed that all parameter loadings for Economic Satisfaction and Social Satisfaction were significant (p<.001, critical t-value = 3.27). The standard error values are small and fit indices are acceptable.

Covariance Structure Analysis

LAMBDA-X (Standardized parameter estimate, standard error, and t-value)

<table>
<thead>
<tr>
<th>Item</th>
<th>Commitment</th>
<th>Strategic Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q19</td>
<td>.92*</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>(0.09)**</td>
<td>(0.10)</td>
</tr>
<tr>
<td></td>
<td>16.84***</td>
<td>9.52</td>
</tr>
<tr>
<td>Q20</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.76</td>
<td></td>
</tr>
<tr>
<td>Q21</td>
<td></td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.09)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.38</td>
</tr>
<tr>
<td>Q22</td>
<td></td>
<td>.79</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.08)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.29</td>
</tr>
</tbody>
</table>

Fit Statistics

χ² = 11.19 (df = 4, P = .025)
GFI = .98
CFI = .99
NNFI = .97
RMSEA = .08
Standardized RMR = 0.02

Table 5.5 CFA: Commitment and Performance

* Standardized parameter loadings
** Standard error
*** t-value
Similar results were obtained for the Commitment and Performance constructs. Table 5.5 shows that all parameter loadings are significant ($p < .001$, critical t-value = 3.27). Standard errors are small in value and fit indices within the recommended level.

Next step is to assess the composite reliability (construct reliability) and variance extracted to see whether the specified measurement items are sufficient in their representation of the constructs. Computation of the measures is shown in Table 5.6. Composite reliability value for each latent variable, with the exception of DEPENDENCE, exceeds the recommended level of .70. Dependence has a value of .67, which is above the lower threshold of value of .60 as suggested by Bagozzi and Yi (1988).

For the variance extracted measures, two constructs Non-coercive Power (.47) and Social Satisfaction (.45), have values falling somewhat short of the recommended 50 percent. The lower level of variance specified measurement extracted for these constructs indicate that more than half of the variance of the specified measurement items is not accounted for by the construct (Fornell and Larcker 1981). Variance extracted for other constructs are above 50 percent and therefore satisfy with the benchmark criterion.

To conclude, assessment of the measurement model provides evidence in support of the validity and reliability of the measures. It is therefore appropriate to proceed to examine the structural model by looking for offending estimates, evaluating the structural model fit, and comparing with rival models.
<table>
<thead>
<tr>
<th>Latent variable</th>
<th>Measurement Item</th>
<th>Composite reliability</th>
<th>% variance extracted</th>
<th>Standardised Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependence</td>
<td>Q.1</td>
<td>.67</td>
<td>.51</td>
<td>.52**</td>
</tr>
<tr>
<td></td>
<td>Q.3</td>
<td></td>
<td></td>
<td>.87**</td>
</tr>
<tr>
<td>Coercive Power</td>
<td>Q.4</td>
<td>.87</td>
<td>.62</td>
<td>.69**</td>
</tr>
<tr>
<td></td>
<td>Q.5</td>
<td></td>
<td></td>
<td>.84**</td>
</tr>
<tr>
<td></td>
<td>Q.6</td>
<td></td>
<td></td>
<td>.82**</td>
</tr>
<tr>
<td></td>
<td>Q.7</td>
<td></td>
<td></td>
<td>.80**</td>
</tr>
<tr>
<td>Non-Coercive Power</td>
<td>Q.8</td>
<td>.78</td>
<td>.47</td>
<td>.66**</td>
</tr>
<tr>
<td></td>
<td>Q.9</td>
<td></td>
<td></td>
<td>.78**</td>
</tr>
<tr>
<td>Economic Satisfaction</td>
<td>Q.10</td>
<td>.69</td>
<td>.54</td>
<td>.63**</td>
</tr>
<tr>
<td></td>
<td>Q.11</td>
<td></td>
<td></td>
<td>.71**</td>
</tr>
<tr>
<td>Social Satisfaction</td>
<td>Q.12</td>
<td>.85</td>
<td>.45</td>
<td>.73**</td>
</tr>
<tr>
<td></td>
<td>Q.13</td>
<td></td>
<td></td>
<td>.68**</td>
</tr>
<tr>
<td></td>
<td>Q.14</td>
<td></td>
<td></td>
<td>.76**</td>
</tr>
<tr>
<td></td>
<td>Q.15</td>
<td></td>
<td></td>
<td>.49**</td>
</tr>
<tr>
<td>Commitment</td>
<td>Q.16</td>
<td>.89</td>
<td>.80</td>
<td>.92**</td>
</tr>
<tr>
<td></td>
<td>Q.17</td>
<td></td>
<td></td>
<td>.87**</td>
</tr>
<tr>
<td>Performance</td>
<td>Q.18</td>
<td>.92</td>
<td>.51</td>
<td>.59**</td>
</tr>
<tr>
<td></td>
<td>Q.20</td>
<td></td>
<td></td>
<td>.74**</td>
</tr>
<tr>
<td></td>
<td>Q.21</td>
<td></td>
<td></td>
<td>.79**</td>
</tr>
<tr>
<td></td>
<td>Q.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q.23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p<.01

Table 5.6 Measurement model: composite reliability, variance extracted and standardized loading

5.5.2 Offending estimates

The three most common offending estimates (Hair et al 1998) are negative error variances, standardized coefficients exceeding or very close to 1, or very large standard error. Examination of our LISREL output on the hypothesized model reveals no instances of any of these problems (Table 5.7, 5.8 and 5.9). In Table 5.7, there are no negative error variances in the PSI matrix. In Table 5.8, the
largest standardized coefficient value is .56. In Table 5.9, values of standard errors (figures in parenthesis) are small.

<table>
<thead>
<tr>
<th>C_POWER</th>
<th>N_POWER</th>
<th>E_SAT</th>
<th>S_SAT</th>
<th>COM</th>
<th>PER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.38</td>
<td>2.10</td>
<td>1.46</td>
<td>1.10</td>
<td>1.54</td>
<td>0.99</td>
</tr>
<tr>
<td>(0.20)</td>
<td>(0.17)</td>
<td>(0.12)</td>
<td>(0.09)</td>
<td>(0.13)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>12.10</td>
<td>12.10</td>
<td>12.10</td>
<td>12.10</td>
<td>12.10</td>
<td>12.10</td>
</tr>
</tbody>
</table>

Table 5.7 PSI: matrix containing the covariances between $\zeta$-variable (error terms of the endogenous variables) (LISREL 8.20)

<table>
<thead>
<tr>
<th>C_POWER</th>
<th>N_POWER</th>
<th>E_SAT</th>
<th>S_SAT</th>
<th>COM</th>
<th>PER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_POWER</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N_POWER</td>
<td>0.03</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E_SAT</td>
<td>-0.21</td>
<td>0.39</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S_SAT</td>
<td>-0.33</td>
<td>0.21</td>
<td>0.16</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>COM</td>
<td>-0.15</td>
<td>0.21</td>
<td>0.45</td>
<td>0.26</td>
<td>1.00</td>
</tr>
<tr>
<td>PER</td>
<td>-0.09</td>
<td>0.11</td>
<td>0.25</td>
<td>0.15</td>
<td>0.56</td>
</tr>
<tr>
<td>DEP</td>
<td>0.15</td>
<td>0.18</td>
<td>0.04</td>
<td>-0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Table 5.8 Correlation matrix of Y and X for the hypothesized model (LISREL 8.20)

5.5.3 Assessing the structural model

Path analysis

Since CFA was conducted on the measurement model to ensure the unidimensionality of each construct in the model, path analysis, with summated scales to represent the relevant constructs, is used for the structural model. The approach is a simultaneous equation regression model executed by LISREL path analysis. Compared to a simultaneous regression approach, the path analysis has several advantages (Singh and Wilkes 1996, p.357):

"First, path analysis allows a simultaneous test of a system of theoretical relationships involving multiple dependent variables. Second, this approach allows for 'restricted' models with systematic constraints on relationships among variables. A key implication is that models can be tested that include only those paths that are hypothesized a priori. Third, the use of path analysis facilitates analysis of model fit based on the assessment of residuals and a $\chi^2$ statistic. In addition, various goodness-of-fit indexes are available to judge model fit..."
An additional reason for using simultaneous regression is that model-level considerations are more important than item-level considerations (Little et al 2002). A major research objective of this thesis is to examine the relationships among channel constructs (model-level considerations), applying them to a developing country (p.12). The use of summated scales in path analysis is one method of aggregation. Scholars (Bagozzi and Edwards 1998, Landis, Beal and Tesluk 2000) have suggested various approaches on the use of item parcels for Structural Equation Models, from total disaggregation to total aggregation. The choice of approach to item parceling is rested with the aim of the investigator and is a matter of item-level versus model-level considerations (construct depth considerations) (Little et al 2002). Path analysis using covariances among observed variables resulting from summation of their corresponding observed indicators subject to measurement refinement using CFA is a popular approach in marketing research (c.f. Banerjee et al 2003; Singh and Wilkes 1996; Rinehart and Page, Jr. 1992; Anderson and Narus 1990).

Having found no offending estimates, the next step is to proceed to examine the fit of the structural model to ensure that it is an adequate representation of the entire set of causal relationships.

The structural model was assessed by fit index measures. Three types of goodness-of-fit indicators (Section 5.4.6 Absolute, Incremental and Parsimonious Fit Measures) are used in the assessment. Table 5.2(b) provided the fit indices acceptance level for reference to the results reported below.

**Absolute fit measures**

Absolute fit measures provide an overall measure of fit. Four of the most commonly used absolute fit measures are Chi-square ($\chi^2$), the goodness-of-fit index (GFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (RMR). The Chi-square value of 57.53 with 11 degrees of freedom is statistically significant at the .00 level. Since Chi-
square statistics are sensitive to sample size, the relatively larger sample size of
this study (sample size 295 as compared to recommended size of 200 by Hair et
al., 1988,) could account for part of the significant result. The GFI value of .95 is
above acceptance level. RMSEA is .12 and RMR is .09. Both marginally exceed
the acceptable criteria. With the exception of GFI, all the absolute fit measures
indicate that the model is marginally acceptable at best. Moreover, other types of
fit measures will provide different perspective on the acceptability of model fit.

*Incremental fit measures*

Incremental fit measures examine the closeness of fit by comparing the
hypothesized model to a baseline model of null model. Adjusted goodness-of-fit
(AGFI), non-normed fit index (NNFI), and normed fit index (NFI) are commonly
used. The values obtained are AGFI = .87, NNFI = .81, and NFI = .88. All are
slightly below the desired threshold of .90. All incremental fit measures exceed
.80. The model is marginally supported.

*Parsimonious fit measures*

This type of measure provides a basis for comparison between alternative
models. One applicable measure for evaluating a single model is the normed chi-
square measure that is expressed by the ratio between chi-square and degrees of
freedom ($\chi^2/df$). With a computed value of 5.23 (57.53/11), it is just above the
more upper threshold of 5 indicating an ‘underfitted’ model. There is a need to
improve parsimony.

5.5.4 Test results

The results for the hypothesis testing were tabulated in Table 5.9(a) and
5.9(b) which show the parameter estimates, the standard errors and the t-values of
endogenous and exogenous variables. Fig. 5.3 presents the path diagram of M-1.
<table>
<thead>
<tr>
<th></th>
<th>C_POWER</th>
<th>N_POWER</th>
<th>E_SAT</th>
<th>S_SAT</th>
<th>COM</th>
<th>PER</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_POWER</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>N_POWER</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>E_SAT</td>
<td>-0.19*</td>
<td>0.37</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(0.05)**</td>
<td>(0.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-4.30***</td>
<td>7.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S_SAT</td>
<td>-0.25</td>
<td>0.17</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-6.30</td>
<td>4.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM</td>
<td>--</td>
<td>--</td>
<td>0.44</td>
<td>0.25</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.05)</td>
<td>(0.06)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8.11</td>
<td>3.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PER</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>0.47</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.04)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.50</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.9(a) BETA matrix showing parameter estimates (*), standard errors (**) and t-values (***) of endogenous and variables (LISREL 8.20)

<table>
<thead>
<tr>
<th></th>
<th>DEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_POWER</td>
<td>0.16*</td>
</tr>
<tr>
<td></td>
<td>(0.06)**</td>
</tr>
<tr>
<td></td>
<td>2.65***</td>
</tr>
<tr>
<td>N_POWER</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
</tr>
<tr>
<td></td>
<td>3.14</td>
</tr>
<tr>
<td>E_SAT</td>
<td>--</td>
</tr>
<tr>
<td>S_SAT</td>
<td>--</td>
</tr>
<tr>
<td>COM</td>
<td>--</td>
</tr>
<tr>
<td>PER</td>
<td>--</td>
</tr>
</tbody>
</table>

Table 5.9(b) GAMMA matrix showing parameter estimates (*), standard errors (**) and t-values (***) of exogenous variables (LISREL 8.20)
It can be seen that all the nine hypotheses are supported with a p-value less than .05. However, one can note the magnitudes of H1a (dependence $\rightarrow$ coercive power) and H1b (dependence $\rightarrow$ non-coercive power) are relatively low (.16 and .18) respectively. These results seem to be somewhat inconsistent with the literature, which found a high correlation between dependence and power (Gaski 1983). In addition, three types of fit indices (absolute fit, incremental fit and parsimonious fit measures) although are acceptable yet at fairly marginal level. It was decided to further investigate other alternative models, especially to investigate the possibility of the moderating role of dependence for the high dependence and low dependence situations of the tenants. For the moderating effect, the researcher emphasized how the change in dependence affected the relations between coercive power and satisfactions (economic and social) for the following reasons: (1) it was suspected that there exist cultural differences between the relation of power and dependence in the Western and Chinese markets. In the West, power and dependence almost viewed as synonymous while results here showed low correlations (.16 for dependence $\rightarrow$ coercive power and .18 for dependence $\rightarrow$ non-coercive power). (2) Chinese society is a collective
one, people may be reluctant to use power, especially coercive power, instead
Chinese people emphasize harmony (Hofstede 1991). To investigate these
assumptions, it was sensible to investigate the moderating effect of dependence
on the relations between coercive power and satisfaction (economic and social)
using rival models.

5.5.5 Rival models

Three rival models, which acted as alternative explanations to the proposed
model, are presented. These rival models are not nested with M-1 (i.e. they are
M-1’s competing models) since they excluded the construct DEPENDENCE for
the reasons explained in the previous section. However, the rival models are
developed in sequence, with each maintaining the same number of constructs and
indicators. Therefore, they are nested models and can be assessed and compared
with the three types of fit measures: absolute fit measures, incremental fit
measures and parsimonious fit measures (Section 5.4.6). The summary on the
results of the comparison is provided in Table 5.10. As for M-1, the only relevant
fit index for assessing competing models in Table 5.10 is PNFI. Higher value of
PNFI represents greater model parsimony. Finally, the model that produces the
best fit is used for hypotheses testing. For easy reference, the proposed model is
labeled as Model 1 (M-1). Rival models will be following the sequence as M-2,
M-3 and M-4.

In Table 5.10, M-1 is marginally accepted in terms of overall model fit
(Section 5.5.3). Values of absolute fit indices were chi-square equals to 57.53 with
11 degrees of freedom and p value equals to .000 significance, GFI = .95,
RMSEA = .12, RMR = .09. Values of incremental fit indices were AGFI = .87,
NNFI = .81, NFI = .88. Values of parsimonious fit indices were $\chi^2/df = 5.23$,
PGFI = .37, PNFI .46. It should be noted that there is a link between error terms
of Economic Satisfaction and Social Satisfaction variables. This indicates that the
measurement error of both variables are correlated, which intuitively makes sense
because economic satisfaction most time is correlated with social satisfaction.
<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>GFI</th>
<th>RMSEA</th>
<th>RMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-1</td>
<td>Initially proposed model.</td>
<td>57.53</td>
<td>11</td>
<td>.00</td>
<td>.95</td>
<td>.12</td>
<td>.09</td>
</tr>
<tr>
<td>M-2*</td>
<td>Rival model of M-1, Dependence was removed from the model.</td>
<td>22.59</td>
<td>6</td>
<td>.00</td>
<td>.98</td>
<td>.10</td>
<td>.05</td>
</tr>
<tr>
<td>M-3*</td>
<td>Rival model of M-1, split samples into high and low dependence groups, all</td>
<td>37.45</td>
<td>24</td>
<td>.04</td>
<td>.97</td>
<td>.07</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>the parameters are constrained to be identical between the 2 groups. It</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>serves as a baseline for M-4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-4*</td>
<td>Rival model of M-1, two parameters between Coercive Power and Economic</td>
<td>29.92</td>
<td>22</td>
<td>.12</td>
<td>.98</td>
<td>.05</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>Satisfaction, Social Satisfaction are set free in the high dependence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>group.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*M-2, M-3 and M-4 are nested models.

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>AGFI</th>
<th>NNFI</th>
<th>NFI</th>
<th>$\chi^2$/df</th>
<th>PGFI</th>
<th>PNFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-1</td>
<td>Initially proposed model.</td>
<td>.87</td>
<td>.81</td>
<td>.88</td>
<td>5.23</td>
<td>.37</td>
<td>.46</td>
</tr>
<tr>
<td>M-2*</td>
<td>Rival model of M-1, Dependence was removed from the model.</td>
<td>.91</td>
<td>.91</td>
<td>.95</td>
<td>3.77</td>
<td>.28</td>
<td>.38</td>
</tr>
<tr>
<td>M-3*</td>
<td>Rival model of M-1, split samples into high and low dependence groups, all</td>
<td>.90</td>
<td>.95</td>
<td>.91</td>
<td>1.56</td>
<td>1.11</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>the parameters are constrained to be identical between the 2 groups. It</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>serves as a baseline for M-4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-4*</td>
<td>Rival model of M-1, two parameters between Coercive Power and Economic</td>
<td>.91</td>
<td>.97</td>
<td>.93</td>
<td>1.36</td>
<td>1.03</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>Satisfaction, Social Satisfaction are set free in the high dependence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>group.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.10 Summary of Goodness-of-fit measures for structural equation models M-1 to M4
A closer examination of the set of structural equations of M-1 (Table 5.12) draws attention to the particular low of $R^2$ values for Coercive POWER (.023) and Non-POWER (.033). This indicates that the variable Depenence only accounts for 2 to 3 percent of the variance in the two power variables. Part of the reason of low $R^2$ is due to Dependence is the single variable correlated to the two power variables. However, one may speculate that Dependence, as the antecedent variable of Power, could play the role of a moderating variable.

\[
\begin{align*}
C_{POWER} &= 0.16^{*}DEP, \quad \text{Errorvar.} = 2.38, \quad R^2 = 0.023 \\
N_{POWER} &= 0.18^{*}DEP, \quad \text{Errorvar.} = 2.10, \quad R^2 = 0.033 \\
E_{SAT} &= -0.19^{*}C_{POWER} + 0.37^{*}N_{POWER}, \quad \text{Errorvar.} = 1.46, \quad R^2 = 0.21 \\
S_{SAT} &= -0.25^{*}C_{POWER} + 0.17^{*}N_{POWER}, \quad \text{Errorvar.} = 1.10, \quad R^2 = 0.16 \\
COM &= 0.44^{*}E_{SAT}, \quad \text{Errorvar.} = 1.54, \quad R^2 = 0.29 \\
PER &= 0.47^{*}COM, \quad \text{Errorvar.} = 0.99, \quad R^2 = 0.33
\end{align*}
\]

Table 5.11 M-1 structural equations (LISREL 8.20)

Rival models M-2, M-3, and M-4 follow this line of thinking. M-2 examines the relationship of the variables in the absence of Dependence. M-3 examines the effect of Dependence by splitting the samples into two groups - a high dependence group and a low dependence group. All the parameters between the two groups are constrained to be identical. This ‘equal’ model would provide a base for comparing results with M-4. M-4 examines the moderating effect of Dependence on Power and Satisfaction between the high dependence group and low dependence group.
Rival model M-2

Chi-Square = 22.59,  df = 6  p = 0.001  RMSEA = 0.10

Fig. 5.4 Path diagram of rival model M-2
C-POWER = Coercive Power
N_POWER = Non-coercive Power
E_SAT = Economic Satisfaction
S_SAT = Social Satisfaction
COM = Commitment
PER = Performance

Rival model M-2 excluded Dependence from the proposed model. From Table 5.10, M-2 values of absolute fit indices were chi-square equals to 22.59 with 6 degrees of freedom and p value equal to .001 significance, GFI = .98, RMSEA = .10, RMR = .05. Values of incremental fit indices were AGFI = .91, NNFI = .91, NFI = .95. Values of parsimonious fit indices were $\chi^2/df = 3.77$, PGFI = .28, PNFI .38.

The chi-square value of M-2 is 22.59 with 6 degrees of freedom. Values of absolute fit indices are within acceptable standard with the exception of RMSEA, which is marginally above the recommended .08 upper threshold. All the incremental fit indices are acceptable. For comparison of alternative models, parsimonious fit index PCFI and PNFI have a lower value than M-1 (PGFI = .37, PNFI = .46).
Rival model M-3

Chi-Square = 37.45, df = 24, p = 0.03940 RMSEA = 0.065

Fig. 5.5 Path diagram of rival model 3 for both groups
C-POWER = Coercive Power
N_POWER = Non-coercive Power
E_SAT = Economic Satisfaction
S_SAT = Social Satisfaction
COM = Commitment
PER = Performance

Rival model M-3 split the sample into two groups – a high dependence group and a low dependence group. The variable Dependence is measured by 7-point scale. Samples having a score greater than 4 are classified as ‘high level of dependence’ and those scored below ‘4’ are classified as ‘low level of dependence’. 24 cases with value = 4 are discarded. This gives a sample size = 114 for high dependence group and sample size = 157 for low dependence group. To maintain stability of the estimated parameters across the two samples, all the parameters are constrained to be identical between the two samples.

From Table 5.10, M-3 values of absolute fit indices were chi-square equals to 37.45 with 24 degrees of freedom and p value equal to .04 significance, GFI = .97, RMSEA = .07, RMR = .07. Values of incremental fit indices were AGFI = .90, NNFI = .95, NFI = .91 Values of parsimonious fit indices were $\chi^2/df = 1.56$, PGFI = .11, PNFI .72.

Relative to M-2, M-3 shows a better fit in terms of all the three groups of fit measures.
Rival Model M-4

Chi-Square = 29.92, df = 22, p = 0.12034 RMSEA = 0.052

Fig. 5.6 Path diagram for rival model M-4, Group 1: High level of dependence
C-POWER = Coercive Power
N_POWER = Non-coercive Power
E_SAT = Economic Satisfaction
S_SAT = Social Satisfaction
COM = Commitment
PER = Performance

Chi-Square = 29.92, df = 22, p = 0.12034 RMSEA = 0.052

Fig. 5.7 Path diagram for rival model M-4, Group 2: low level of dependence
C-POWER = Coercive Power
N_POWER = Non-coercive Power
E_SAT = Economic Satisfaction
S_SAT = Social Satisfaction
COM = Commitment
PER = Performance

Rival model M-4 is designed with the intention of testing the moderating effect of Dependence on (i) the relationship between Coercive Power and Economic Satisfaction and (ii) the relationship between Coercive
Power and Social Satisfaction. This is because, as discussed in section 5.5.4, the researcher aims to investigate the cultural factor that makes the power-dependence relations different between the West and China. In M-3, all parameters are constrained to be identical between the high dependence group and low dependence group. In M-4, the two parameters between Coercive Power and Economic Satisfaction, as well as Coercive Power and Social Satisfaction are set free in the high dependence group. All the other parameters are constrained to be identical between the high dependence and low dependence group. In so doing, any change in parameter estimates between Power and Satisfaction will reflect the moderating effect of Dependence.

From Table 5.10, M-4 values of absolute fit indices were chi-square equals to 29.92 with 22 degrees of freedom and an insignificant p value equal to .12. GFI = .98, RMSEA = .05, RMR = .07. Values of incremental fit indices were AGFI = .91, NNFI = .95, NFI = .93 Values of parsimonious fit indices were $\chi^2/df = 1.36$, PGFI = 1.03, PNFI .68.

Relative to M-2 and M-3, M-4 shows a better fit in terms of all the three groups of fit measures.

Relative to M-3, chi-square value of M-4 reduced by 7.53 (37.45 – 29.92) with corresponding drop in 2 degrees of freedom (24 – 22). From chi-square table, the critical value for 2 degrees of freedom and alpha at 0.5 is 5.99. All the fit measures of M-4 are well within the recommended guidelines in Table 5.2. It can be concluded that, technically speaking, M4 is a better model than M-3 and M-2.

Before drawing a final conclusion that M-4 is the ‘better’ model, we examined the residuals and modification indices of M-4 to identify potentially significant model modifications. An examination of the standardized residual figures (Table 5.12) reveals that no value exceeding 2.58 for both high dependence and low dependence groups. The Stemleaf Plot shows that all residuals clusters around the zero point characterizes the model fits well.
Modification indices suggest adding a path from Performance to Commitment and an error covariance between the two variables. The former suggestion, which will result in examining the interaction effect between Commitment and Performance, could be valid. However, it is preferable to keep the model simple, so such suggestion is not taken. In theory, we assume correlation between errors is zero, so we do not consider the suggestion of adding error covariance between Commitment and Performance.

After analyzing the residuals and modification indices of M-4, we can conclude that M-4 fits best among the four models.
**Group 1: High level of dependence**

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = -1.79  
Median Standardized Residual = 0.00  
Largest Standardized Residual = 1.71

Stemleaf Plot

- 1|87
- 0|332100000
0|2345668
1|367

The Modification Indices Suggest to Add the

<table>
<thead>
<tr>
<th>Path to</th>
<th>from</th>
<th>Decrease in Chi-Square</th>
<th>New Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>PER</td>
<td>9.7</td>
<td>-0.34 IN GROUP 1</td>
</tr>
</tbody>
</table>

The Modification Indices Suggest to Add an Error Covariance

<table>
<thead>
<tr>
<th>Between and</th>
<th>Decrease in Chi-Square</th>
<th>New Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER</td>
<td>COM</td>
<td>14.6</td>
</tr>
</tbody>
</table>

**Group 2: Low level of dependence**

Summary Statistics for Standardized Residuals

Smallest Standardized Residual = -0.83  
Median Standardized Residual = 0.14  
Largest Standardized Residual = 1.96

Stemleaf Plot

- 0|86643000000
0|12339
1|45578
2|0

Table 5.12 Residuals and modification indices for M-4 (LISREL 8:20)
Once again, the hypotheses proposed in this study were tested based on the result of M-4. Two sets of structural equations, one for the high dependence group and one for the low dependence group, are given below (Table 5.13).

**LISREL Estimates (Maximum Likelihood)**

**Group 1: High Level of Dependence**

\[
\begin{align*}
E_{SAT} &= -0.11 \times C_{POWER} + 0.36 \times N_{POWER}, \text{ Errorvar.} = 1.50, R^2 = 0.15 \\
& (0.071) \quad (0.053) \quad (0.13) \\
& -1.59 \quad 6.74 \quad 11.55 \\
S_{SAT} &= -0.24 \times C_{POWER} + 0.14 \times N_{POWER}, \text{ Errorvar.} = 1.14, R^2 = 0.11 \\
& (0.062) \quad (0.047) \quad (0.099) \\
& -3.94 \quad 2.94 \quad 11.55 \\
COM &= 0.42 \times E_{SAT} + 0.23 \times S_{SAT}, \text{ Errorvar.} = 1.57, R^2 = 0.26 \\
& (0.071) \quad (0.085) \quad (0.14) \\
& 5.95 \quad 2.69 \quad 11.55 \\
PER &= 0.46 \times COM, \text{ Errorvar.} = 1.03, R^2 = 0.31 \\
& (0.043) \quad (0.089) \\
& 10.88 \quad 11.55
\end{align*}
\]

**Group 2: Low Level of Dependence**

\[
\begin{align*}
E_{SAT} &= -0.24 \times C_{POWER} + 0.36 \times N_{POWER}, \text{ Errorvar.} = 1.50, R^2 = 0.17 \\
& (0.069) \quad (0.053) \quad (0.13) \\
& -3.45 \quad 6.74 \quad 11.55 \\
S_{SAT} &= -0.13 \times C_{POWER} + 0.14 \times N_{POWER}, \text{ Errorvar.} = 1.14, R^2 = 0.049 \\
& (0.060) \quad (0.047) \quad (0.099) \\
& -2.20 \quad 2.94 \quad 11.55 \\
COM &= 0.42 \times E_{SAT} + 0.23 \times S_{SAT}, \text{ Errorvar.} = 1.57, R^2 = 0.26 \\
& (0.071) \quad (0.085) \quad (0.14) \\
& 5.95 \quad 2.69 \quad 11.55 \\
PER &= 0.46 \times COM, \text{ Errorvar.} = 1.03, R^2 = 0.31 \\
& (0.043) \quad (0.089) \\
& 10.88 \quad 11.55
\end{align*}
\]

Table 5.13 Parameter estimates of M-4 (both groups)
Initial examination of the two set of equations showed that the parameter estimates yield different results for the first and second equations on Economic Satisfaction and Social Satisfaction and the same results for the third and fourth equations on Commitment (COM) and Strategic Performance (PER). This indicates the difference of the impact of Dependence upon the variables Coercive Power and Economic and Social Satisfaction.

More detailed examination of Group 1 (high dependence group) revealed that the parameter estimate between Economic Satisfaction and Coercive Power is insignificant (t-value = -1.59). All the other parameter estimates are statistically significant (p< .01, t-value critical value = 2.58). This indicates that Coercive Power has no impact on Economic Satisfaction for the high dependence group. Hypothesis H2a: In store-tenant relationships, T’s perception of increased use of coercive power by S will decrease its economic satisfaction is therefore not supported. In addition, since dependence has a moderating effect on the relationship between coercive power and economic satisfaction/social satisfaction, it is not a determinant (antecedent variable) of coercive power and non-coercive power as hypothesized in the initial proposed model M-1. The rest of the hypothesized casual relationships between the variables are as hypothesized and therefore hypotheses H2b, H3a, H3b, H4a, H4b, and H5 are supported.

Detailed examination of Group 2 (the low dependence group) showed that all parameter estimates are statistically significant (p< .01, t-value critical value = 2.58). As above, dependence moderates the effects of coercive power and economic and social satisfaction. All the hypothesized casual relationships between the variables are as hypothesized and therefore hypotheses H2a, H2b, H3a, H3b, H4a, H4b, and H5 are supported again by M-4.

The results also showed the significant impact of dependence as a moderating variable. This is because (1) the path coefficients for coercive power → economic satisfaction are insignificant for the high dependence group t-value = -1.59 and significant (t-value = -2.20) for the low dependence group; and (2) an
obvious difference between the path coefficients for coercive power → social satisfaction for the high dependence group (-.24) and for the low dependence group (-.13).

5.6 Model stability

This section tries to answer the question, ‘Will the model fit well when estimated on a different sample from the same population?’ This basic idea of cross-validation analysis could be dealt with using a split sample approach. This involves splitting the total sample into two halves, a calibration sample and a validation sample. The calibration sample is used to develop the model and the validation sample is used to test the model. As such, the validation sample simulates an independent sample. However, one needs to have a large enough sample to implement a split sample approach. The lower threshold recommended is 300 cases yet it also depends on the complexity of the model in terms of the number of parameters to be estimated (Diamantopoulos and Siguaw 2000, P.130).

In this study, the 295 firms in the sample are divided according the odd (Group 1) and even (Group 2) numbers. Group 1 represents the calibration sample with 147 cases and groups 2 represents the validation sample with 148 cases. As a start, the estimated model of group 1 is cross-validated on group 2 under a tight replication strategy. Next, the same process is replicated but this time under a moderate replication strategy. Under the tight replication strategy, the model specification and the parameters are constrained to be identical between the two groups. With a moderate replication strategy, the model specification will be the same for the two groups but certain parameter estimates (e.g. covariance and error variance) are set free in the validation sample (group 2). The results obtained from tight replication strategy and moderate replication strategy are compared using the overall fit index chi-square test. A non-significant result of chi-square test implies there are no difference between the two groups under tight replication and moderate replication strategy. Therefore, the model is likely to fit well when estimated on a different sample from the same general population.
Chi-square results from the tight replication strategy and moderate replication strategy are provided below (Table 5.14).

<table>
<thead>
<tr>
<th>Tight replication strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness of Fit Statistics</td>
</tr>
<tr>
<td>Degrees of Freedom = 24</td>
</tr>
<tr>
<td>Minimum Fit Function Chi-Square = 46.16 (P = 0.0042)</td>
</tr>
<tr>
<td>Normal Theory Weighted Least Squares Chi-Square = 47.42 (P = 0.0030)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moderate replication strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness of Fit Statistics</td>
</tr>
<tr>
<td>Degrees of Freedom = 22</td>
</tr>
<tr>
<td>Minimum Fit Function Chi-Square = 42.54 (P = 0.0054)</td>
</tr>
<tr>
<td>Normal Theory Weighted Least Squares Chi-Square = 43.76 (P = 0.0038)</td>
</tr>
</tbody>
</table>

Table 5.14 Chi-square and degrees of freedom (tight and moderate replication strategy)

The chi-square difference is 3.66 (46.16 – 42.54) with a corresponding change in 2 degrees of freedom (24 – 22). From the chi-square table, 2 degrees of freedom with alpha at .10 level, the critical value is 4.605. Therefore, a chi-square value of 3.55 with 2 degrees of freedom is not significant which implies that the model will fits well with other samples from the same general population.

5.7 Summary and conclusion

This chapter provided a description of the preliminary analysis of the sample data with descriptive statistics and explained that the rationale for choosing structural equation modeling (SEM) for analysis was linked to the complexity of the model, which composed of seven latent variables. As a multivariate statistical tool, SEM has the ability to estimate multiple and interrelated relationships between latent constructs, whilst accounting for the measurement errors in the estimation process. Since LISREL was found to be the
most popular statistical package being used in marketing research, it was adopted for the analysis. A brief account on the SEM process with reference to LISREL was provided. The hypothesized model (M-1) was analyzed and tested in terms of measurement model fit and structural model fit. CFA was conducted on the measurement model. The results supported that the measures are reliable and valid. The structural model was assessed by using absolute fit measures, incremental fit measures, and parsimonious fit measures. The results showed that the structural model was marginally accepted. In addition, the correlations between dependence and the use of coercive and non-coercive Power were relatively low. These results seem to be somewhat inconsistent with the literature, which acknowledges a high correlation between dependence and power (Gashi 1983). It was decided to further investigate the moderating effect of dependence on the relations between coercive power and satisfaction (economic and social) using alternative models. Three rival models (M-2, M-3, M-4) were developed for such purpose. The results showed the significant effects of dependence as a moderating variable. Finally, model M-4 fits "best" among the four models and M-4 is chosen as the preferred model.
CHAPTER 6

CONCLUSION AND DISCUSSION

This chapter draws conclusions and discusses the implications of the study. It focuses on four areas. First, the results of the analysis reported in Chapter 5 are discussed. Second, the theoretical contribution of the research is examined. Third, managerial issues and implications are provided. Finally, study limitations are pointed out and future research directions suggested.

Section 6.1 Discussion of results
Section 6.2 Theoretical contributions
Section 6.3 Managerial implications
Section 6.4 Limitations and future research

6.1 Discussion of results

The results reported in the previous chapter are summarized in Table 6.1. These hypotheses were tested using model M-4. In M-4, the sample is split into a high dependence group and a low dependence group. By definition, the high dependence group consists of tenants that perceived themselves highly dependent on the store, i.e. the store is more powerful in the exchange relationship. The low dependence group does not perceive themselves as highly dependent on the store. M-4 did find a significant moderating effect of dependence on the relations between coercive power and satisfactions (economic and social).
<table>
<thead>
<tr>
<th>Hypotheses (paths)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1a</strong>: dependence $\rightarrow$ (+) coercive power</td>
<td>Not supported by M-4 (i.e., whole sample)</td>
</tr>
<tr>
<td><strong>H1b</strong>: dependence $\rightarrow$ (+) non-coercive power</td>
<td>Not supported by M-4 (i.e., whole sample)</td>
</tr>
</tbody>
</table>
| **H2a**: coercive power $\rightarrow$ (-) economic satisfaction | Insignificant for the high-dependence group (M-4)  
Significant for the low-dependence group (M-4) |
| **H2b**: coercive power $\rightarrow$ (-) social satisfaction   | Supported by M-4                                                                                  |
| **H3a**: non-coercive power $\rightarrow$ (+) economic satisfaction | Supported by M-4                                                                                  |
| **H3b**: non-coercive power $\rightarrow$ (+) social satisfaction | Supported by M-4                                                                                  |
| **H4a**: economic satisfaction $\rightarrow$ (+) commitment | Supported by M-4                                                                                  |
| **H4b**: social satisfaction $\rightarrow$ (+) commitment   | Supported by M-4                                                                                  |
| **H5**: commitment $\rightarrow$ (+) performance          | Supported by M-4                                                                                  |

Table 6.1 Summary of results

**Hypotheses H1a and H1b**

Since dependence is a moderating variable, and not an antecedent variable in M-4, H1a and H1b are not supported.

Dependence being not an antecedent of power in the store-tenant relationship can be due to the following reasons. From the tenant perspective, their reliance on the department store is primarily on the store location and sales floor space provided. From the department store perspective, they only provide standard service, such as clean and comfortable store environment, store security, and overall store management etc. which are not much varied. The department store itself is going through China’s transition from planned economy to market economy. Owing to the lack of business experience to cope with the modern market economy, Chinese department stores can only offer limited service support to their tenants in merchandizing, inventory control, and advertising. That is, they
can provide little reward or assistance (the use of non-coercive power) to the tenants. In general, the magnitude of non-coercive power is low and invariate. As a result, the correlation between tenants' dependence and store non-coercive power is low. On the other hand, for a weak tenant owner who is encountering difficulties in business, the department store also has difficulty in inflicting punishment (coercive power), because the most the store can do is to terminate the leasing contract with the tenant. Besides, Chinese society is a collective culture, emphasizing harmony and avoiding severe punishment measures if there is a choice. As a result, no matter a high or low dependence situation of the tenants, the magnitude of the relation between power (coercive and non-coercive power) and dependence is insignificant.

The power structure-action-outcome framework (section 3.1.3) suggests causal links between dependence (structural aspects of power), use of power (action), and consequences of exchange (outcome). The framework postulates that dependence affects outcome indirectly through its effect on use of power (Fig. 6.1). Since the findings showed that dependence is not the antecedent of power in the store-tenant context, there are two other possibilities that are worth further exploration: (i) dependence link directly to outcome, independent of use of power (Fig. 6.2), (ii) dependence moderates the relationship between use of power and outcome (Fig. 6.3).

![Fig. 6.1 Dependence indirectly affects outcome](image)

![Fig. 6.2 Dependence directly affects outcome](image)
In either case, this suggests that one should explore dependence's direct impact on outcome as well as its moderating role between use of power and outcome in addition to the proposed power structure-action-outcome framework.

From the basic insight that A's power (i.e. structural aspect of power) over B is equal to B's dependence on A, yet how much power firm A has over firm B in an exchange relationship has no relation to A's use of power behavior. A firm that has power may not want to use it or only use part of it. There could be a possibility that a firm possesses power, but does not know how to use that power to its advantage. On the contrary, a less powerful firm who knows how to use power effectively, could compensate its weak position in the relationship by applying power to influence the attitude and behavior of its exchange partner.

**Hypothesis H2a**

From M-4, the high dependence group displays a result different from the low dependence group reflecting the moderating role of dependence (Fig. 6.3) on contingent use of coercive power and economic satisfaction.

For the high dependence group of tenants, department store contingent use of coercive power has a negative but insignificant relationship with tenant's economic satisfaction. This indicates that tenants disfavor the use of coercive influence, but the effect is not strong enough to be manifested in the result. One explanation could be this. Since these small tenants are highly dependent on the store, they are likely to have less expectation of equitable treatment and are highly tolerant to coercive pressure imposed on them as long as the business is profitable. As large department stores in China always have high credibility, small tenants
tend to accept coercive influence as norms and policies. Department stores are less motivated to build strong, cooperative relationship with their tenants since the costs of building and maintaining collaborative relationship with large number of small tenants are high. Subsequently, stores manage their tenants through an authority-based system of rules and policies. Unless specific problems arise with a specific tenant, the need for the store to use coercive power such as punishment is minimum. Even so, the imposition of punishment by the stores could be insignificant as tenants retain most of their freedom to manage their own retail business. In this situation, store-tenant relationship maintains an arm’s length level and couldn’t be considered as alliance relationship.

For the low dependence group of tenants, store use of coercive power has a significant negative impact on the tenants who are relatively independent. These tenants disfavor use of coercive power by the store and feel that could incur additional cost on them (e.g. to participate in the store’s compulsory ad hoc promotional program). Hence, this reduces their economic satisfaction. It is likely that excessive use of coercive influence may generate retaliation from this low dependence group.

**Hypothesis H2b**

Same results for both groups: stores contingent use of coercive power has negative but significant relationship with tenants social satisfaction. Since social satisfaction is a channel member’s evaluation of the psychosocial aspects of its exchange relationship as fulfilling and gratifying, such ‘feelings’ will be hampered when one is being coerced to comply. Even if a contingent reward is provided, it could still cause unpleasant feeling of being ‘controlled’.

In general the results of H2a and H2b indicate that contingent use of coercive power generates negative outcomes and feelings on the exchange partner’s economic and social satisfaction, irrespective of the level of dependence. However, tenants having a higher level of dependence demonstrated they also
have a higher tolerance level when being pressurized due to lacking potential alternative exchange partners.

**Hypotheses H3a and H3c**

From M-4, same results for both groups: a department store’s increased contingent use of non-coercive power increased tenant’s economic satisfaction and social satisfaction. Our results provide another support to findings of previous empirical studies. Non-coercive influence has been proved to produce positive effect on channel member’s overall satisfaction (e.g. Hunt and Nevin 1974; Lee 2001). However, our findings give additional insights to the constructs in that non-coercive influence is applied ‘contingently’ and its impact being assessed with economic and social satisfaction as separate constructs. Most previous studies only assessed use of coercive power on member’s overall satisfaction. Here, the tenants respond positively to the contingent use of non-coercive power by the store. Since non-coercive influence relates to the use of rewards and assistance, whether or not these rewards or assistance are provided with conditions or without conditions is not that important, as long as they are ‘benefits’. The tenants considered the rewards improve their economic well being as well as feeling good psychologically. Such results have strong implications on channel member motivation. Firms should devote more effort to apply non-coercive influence contingently to encourage collaborative behavior of their exchange partners.

**Hypothesis 4a, 4b, and 5**

From M-4, same results for both groups: a higher level of economic satisfaction and social satisfaction leads to a higher level of commitment which in turn, drives the strategic performance of tenants. The findings between satisfaction and commitment concur with most previous research. As more economic benefits are flowing from the relationship to the tenant who is also satisfied psychologically with the partnership, the tenant becomes more willing to invest further resource into the relationship. Consequently, the tenant becomes committed. As tenants show commitment by devoting more organizational
resources to the relationship, the resultant effort improves the strategic performance of the tenant.

Theoretically, improvement of tenant’s strategic performance would also result in improvement in strategic performance of the store-tenant relationship. Correlation analysis was conducted on tenant strategic performance and store strategic performance. The result showed strategic performance of the tenant and the store are positively correlated (.35) and significant at .01 level. This means that the store also derives similar benefits from the relationship when there is increase in tenant’s commitment and strategic performance. It may be the case that the store reciprocates tenants commitment by increased level of support provided to the relationship. Subsequently, the joint effort by the tenant and store drives the strategic performance of the relationship.

**6.2 Theoretical Contributions**

This research contributes to the channel literature in the following ways:

First, it has added to the contemporary state of knowledge on the use of power strategies in horizontal channel relationships with dependence asymmetry. Results showed that the dominant partner has indeed used coercive and non-coercive power for different purposes. However, store use of coercive power has a negative impact on tenants’ economic and social satisfaction.

Second, it has provided empirical knowledge on the performance of authority-based non-market governance of the department store, which is virtually unexplored in the channel literature (Heide 1994). The results show that strategic performance of the relationship improved, benefiting both the tenant and the store.

Third, it has brought together constructs that have not been empirically investigated together within single study. The results showed that casual linkages among constructs were as predicted.
Fourth, it tested the model in a non-American setting and used China, a rapidly developing Asian country, as the test location. Results showed that there are differences in the strength of relationships between constructs due to differences in channel context, yet in general, the constructs displayed similar characteristics and have external validity.

### 6.2.1 The use of power in asymmetrical, horizontal relationship

In addition to previous empirical findings that dependence is the antecedent of power use strategy (e.g. Gaski 1984, Anderson and Narus 1990), this study found that dependence also moderates the effect between coercive power and economic satisfaction.

Result of this study revealed a significant moderating effect of dependence on the relationship between coercive power and economic satisfaction. In particular, tenants with low levels of dependence showed a negative link between coercive power and economic satisfaction. In contrast, tenants with high levels of dependence did not reveal a decrease in economic satisfaction even when they experienced coercive power. This reveals the difference in power response behavior between the two groups of tenants. This finding provides evidence to the existence of threshold of power tolerance (Bucklin 1973; Brown, Lusch and Smith 1991). Bucklin (1973) proposed two related concepts in his study of channel control – the payoff and tolerance functions. The payoff function relates to the benefits that partner A received from partner B in return for accepting partner B’s control. The tolerance function reflects the amount of control that A is able to tolerate and will be evaluated in light of the benefits received from B in the exchange. A will tolerate B’s control up to the point (threshold) where the perceived benefits just compensate the loss of control. Beyond the threshold, A considers the benefits that accrued from the exchange as no longer worthwhile. It can be concluded that tenants with high level dependence have a higher power tolerance threshold than tenants with low level dependence. When the same amount of coercive power is applied to both groups, the effect on high
dependence group is insignificant or the influence is perceived as far below the threshold. For the low dependence group, the same level of power is considered as excessively beyond the acceptable threshold and significantly affects economic satisfaction.

When power asymmetry is high in dyadic store-tenant relationship, the store can pressurize its highly dependent partner with coercive power to achieve compliance. However, the same power strategy will not be effective when applied to store-tenant dyad with more symmetrical relationship. Our results showed that coercive influence leads to economic dissatisfaction of the low dependence tenants who considered the economic benefits obtained from the relationship is not sufficient to compensate the lost of decision control. The lesson learned here is that when making influence decisions, a strong focal partner having large number of dyadic relationships should differentiate rather than standardize its influence strategies by considering the variation in power asymmetrical relationships among exchange partners. In the context of store-tenant relationship, the store should pursue two different influence strategies to achieve compliance for the high dependent and low dependent tenants.

A number of recent studies (Rawwas, Vitell, and Barnes 1997; Geyskens and Steenkamp 2000; Kiyak, Roath, and Schatzel 2001) found no conclusive evidence on the proposed relationship between coercive power and satisfaction. Our findings can provide explanation for these results. In the examination of power relationship between partners, one should use with caution the moderating effect of power structure (dependence) on power use strategies. This applies to vertical as well as horizontal channel relationships.

6.2.2 Power and its outcomes in a developing country

The relationships between constructs found in this study agreed in general with the existing studies in the distribution channel research in US and Europe (Table 6.2). Nonetheless, there are differences in the strength of the relationship. These are discussed below. The coefficients from two studies are used for
comparison with our study. Geyskens, Steenkamp, and Kumar (1999) conducted a meta-analysis of satisfaction in marketing channel relationships. They unified the stream of research on power use, satisfaction, trust and commitment. (First column of table 6.2). The same two authors, Geyskens and Steenkamp (2000) have developed measures for economic and social satisfaction, which were empirically tested with samples of retailers in Europe (Second column of table 6.2).

<table>
<thead>
<tr>
<th>Coefficient value between two variables</th>
<th>Geyskens et al (1999) <em>JMR</em></th>
<th>Geyskens et al (2000) <em>JR</em></th>
<th>This study (high level dependence)</th>
<th>This study (low level dependence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingent use of coercive power and economic satisfaction</td>
<td>-.10</td>
<td>.07*</td>
<td>-.14*</td>
<td>-.26</td>
</tr>
<tr>
<td>Contingent use of coercive power and social satisfaction</td>
<td>-.23</td>
<td>-.16</td>
<td>-.36</td>
<td>-.17</td>
</tr>
<tr>
<td>Contingent use of non-coercive power and economic satisfaction</td>
<td>.12</td>
<td>.28</td>
<td>.42</td>
<td>.38</td>
</tr>
<tr>
<td>Contingent use of non-coercive power and social satisfaction</td>
<td>-.18</td>
<td>-.13</td>
<td>.19</td>
<td>.18</td>
</tr>
<tr>
<td>Economic satisfaction and commitment</td>
<td>.12</td>
<td></td>
<td>.38</td>
<td>.39</td>
</tr>
<tr>
<td>Social satisfaction and commitment</td>
<td>.34</td>
<td></td>
<td>.18</td>
<td>.17</td>
</tr>
<tr>
<td>Commitment and strategic performance</td>
<td></td>
<td></td>
<td>.55</td>
<td>.55</td>
</tr>
</tbody>
</table>

* Table 6.2 Coefficient values
*insignificant relationship
#satisfaction as single construct 'overall satisfaction'
*JMR = J. of Marketing Research; *JR = J. of Retailing

From the table, the impact of coercive power on economic and social satisfaction generates a consistent negative impact across all the studies. It is important to note that both Geyskens et al (2000) and our study (the high level dependence tenants) displayed insignificant relationship between coercive power and economic satisfaction. Also, it is worth noting that both these studies collected data from small retailers as the target of study. The magnitudes of the coefficients between the variables of our study (range from -.14 to -.36) and those reported (ranged from -.10 to -.23) are relatively similar.

From the magnitude of the coefficients between non-coercive power and economic satisfaction, non-coercive power and social satisfaction, Chinese channel members are more sensitive to the use of non-coercive influence on economic satisfaction (coefficient ranged .38 to .42). The coefficients of other studies ranged from .12 to .28. The higher magnitude of our coefficients can be explained as follows. In Chinese society, to create profit and hence economic satisfaction, business has to be conducted in harmonious manner by using non-coercive influence. The notion of harmony is highly treasured in the Chinese business culture (Lee 2001). In their study of personality characteristics among populations of nations, Hofstede and Bond (1988) have identified Confucian dynamism, being a salient attribute for the Chinese people. The Confucian ‘Doctrine of the Mean’ urges individual to adapt to the collectivity, to control their own emotions, to avoid confusion, competition and conflict, and to maintain inner harmony (Chan 1963). Lee (2001) has found that Chinese channel members are less likely than their US counterparts in international joint ventures to voice their complaints to their supplier in order to avoid conflict, although they may still feel unhappy. Such behavior indicates the importance of using non-coercive power influence to drive the behavior of channel partner in Chinese marketing channels. The coefficient between contingent use of non-coercive power and social satisfaction was very moderate (-.18, -.13, 19, .18) yet our study showed a
positive association between the two variables and the western studies showed a negative association. Contingent application of non-coercive power could create negative feeling of ‘being controlled’, yet for the same reasons explained above, Chinese channel members behaved differently from their Western counterparts due to collectivistic cultural characteristics. This is an important finding that shows the subtle difference in channel member behavior between an individualistic culture and a collectivistic culture.

The coefficient linking economic satisfaction and commitment is higher in our study (.38, .39) compared to the other study (.12). Commitment of small retail tenants in our study is strongly driven by the economic outcome of the relationship. Their tenancy contract with the store is renewed every two or three years. Such short time horizon motivates the small tenants to pursue short term profit maximization behavior. As a result, the nature of such kind of commitment is short term goal driven and economically oriented. As such, the coefficient between social satisfaction and commitment exhibits the opposite result with a much lower magnitude (.18, .17) reflecting social satisfaction is of much less importance. On the contrary, the order of importance of economic satisfaction and social satisfaction is just the reverse for the other study shown in the table. Coefficient between social satisfaction and commitment is .34 and between economic satisfaction and commitment is .12. Unlike the store-tenant relationship describe in this study, commitment in channel relationships reflects a long term orientation of both parties in the exchange relationship. Unlike economic satisfaction, which derives in short term economic exchanges, social satisfaction takes much longer time to cultivate. Hence plays a more important role in the development of commitment under normal circumstances.

Finally, the coefficient between commitment and strategic performance of our study is high in magnitude, which represents a strong relationship between the two variables.
Overall, we can conclude that channel constructs developed in the West and examined in our model displayed similar characteristics. However, there are certain differences in their strengths of relationship due to differences in channel context. In this study, the collectivistic cultural characteristics of Chinese channel members are particularly receptive (sensitive) to the use of non-coercive influence.

6.3. Managerial Implications

6.3.1 Exchange relationship and plural form governance

Firms (e.g. department stores in this research project) can creatively craft their exchange relationships to achieve cost efficiency and strategic benefits. Since innovative organization design could have a strategic influence on exchange relationships, managers should consider the creative use of organization design to craft exchange relationships.

This study illustrates how department stores adopt plural form organization design by running store-owned departments side by side with leased-departments/counters. The store-tenant relationships are contractual relationships yet operate under the authority-based system of the store. To the department store, this has the advantages of stability and flexibility. The store maintains control of its own units and can closely monitor the performance of its tenant retailers under a centralized management system. At the same time, entering into contractual relationships with tenant retailers enables the store to become more responsive to the local market environment by bringing in appropriate tenants with expertise in retail business that the store may or may not be familiar with. Strategically, the contractual approach also allows the store to gain access to potential ‘good marketing practice’ by having a build-in comparative system between the store’s own retail units and the tenant retailers.

Other managerial implications for the plural form of organization design are the strategic implications associated with the benefits of mutual learning and
benchmarking by having two organizational designs together. For example, a
manufacturer could meet its production target by partially produced inhouse and
partially outsourcing from suppliers. Similarly, firms could utilize a direct sales
force together with a third party sales force in marketing their products. Similar
plural form arrangements could be found in franchisor and franchisee relationship
in retail business.

In conclusion, firms should first explore the strategic implications of
organization design that could produce on exchange relationship. Then, by
applying appropriate power strategies to manage their exchange relationships with
exchange partners. In our study, a department store can bench mark good
practices from its tenant retailers or vise versa.

6.3.2 Power influence in inter-firm exchange relationship

Managers should learn how to use power to manage highly interdependent
relationships and highly dependent relationships. Despite the growing emphasis
on relationship marketing and the focus on trust and commitment as control
mechanisms for inter-firm relationship, the use of power and the use of written
contracts remain as important mechanisms for governing inter-firm exchange
relationships.

Although building close and long term exchange relationship has strategic
benefits (e.g. forming strategic alliance to build just-in-time channel strategy), it is
nevertheless a costly approach due to strong commitment and often, idiosyncratic
investment are needed from all parties in the supply chain. Moreover, with the
large number of exchange relationships that exist, firms should realize that not all
exchange relationships deserve their attention to commit strategic resource while
at the same time, not all exchange partners favor close relational exchange.

As a marketing manager, one should decide within the spectrum of
exchange relationships from relational exchange to arms length exchange, and ask
themselves what power influence strategies would be appropriate for a particular
exchange relationship? For example, in an asymmetrical relationship such as in this study, the department store (dominant partner) can significantly influence the highly dependent tenants with coercive tactics to achieve desired results. On the other hand, the weaker channel member (the highly dependent tenants) should make best effort to maintain communication and cooperation with a positive attitude as oppose to using confrontational response. In the longer term, the weaker partner should try to improve its position in the exchange relationship. For example, the weak partner could make use of non-coercive influence such as capturing valuable customer information to share with exchange partner.

The strategic use of power influence is related to the behavioral skills of managers that have no relation to the level of dependence of the exchange partner on the relationship. Since exercising power is a kind of behavioral skill and behavioral skills can be taught and learned, firms should provide managers with relevant training to build up their knowledge and skills in the use of coercive and non-coercive power strategies.

To illustrate how the dominant partner could exploit power influence in an asymmetrical relationship, this research (Table 6.2) serves as an example. From the results, both the high dependence and low dependence tenants display favorable responses to the dominant partner's use of non-coercive influence, which drives economic satisfaction. Further, economic satisfaction correlates strongly with commitment. Such behavior reflects that retail tenants are short term goal driven and when they are economically satisfied, they are willing to commit. In other words, if the dominant partner could assist its retail tenants in short term economic goal attainment, there is a higher chance for these tenants to commit to the relationship, which would improve strategic performance. In this respect, the store could manipulate the level of economic reward to the tenants by linking it to the rental level and duration of the tenancy contract. For example, for low dependence level tenants who are able to generate good sales revenue, the store could increase their dependence level by giving rewards such as extending the
tenancy contract from the normal two years to four years and fixed the rental level at mutually agreed level.

Since the level of dependence is due to lacking alternatives or substitutes, high dependence tenants will search ways to reduce their dependence. They have to invest their effort to engage in dependence balancing act such as spreading the risks by opening other retail outlets elsewhere. The limited availability of alternative retail sites means that they have to pay high information search cost. Since the normal terms of a tenancy contract is two years, high dependence tenants will favor a longer term tenancy contract (e.g. 3-year contract) even it is accompanied with higher rents. On the other hand, low dependence tenants might favor a standard 2-year tenancy contract accompanied with lower rents that provides immediate economic benefits. The department store can also make use of non-coercive influence to make particular low-dependence tenants become more dependent if necessary. For example, department store can provide non-coercive influence in the form of information sharing, and to invite them to participate in company training program and management meetings. In conclusion, the more powerful actor can increase exchange asymmetry to its favor by imposing rules, policies and by designing a more detailed contract to monitor the behavior of the dependent partner.

However, to maintain a long term relationship, managers of the dominating party should be knowledgeable of the implications of the use of coercive power. Though coercive influence could lead to desirable results with dependent partners, it could create latent conflict that may give rise to manifest conflict in the long term. The findings of this research clearly showed that there are negative consequences of creating dissatisfaction due to the use of coercive power. Dissatisfaction reduces commitment and strategic performance. The use of non-coercive influence will produce positive impacts on satisfaction, commitment and strategic performance. For the long term benefit of the relationship, it is recommended that the department store should always consider the use of non-coercive power.
In countries having collectivistic culture such as China, no resistance from the tenants does not necessarily mean that they agree to the store’s coercive influence. It simply means that they are tolerant as a result of their dependence on the relationship and their preference for harmony. The difference in cultural context implies that managers of the store should maintain communication with tenants to avoid misunderstandings in different decision areas. Moreover, the use of non-coercive influence would be more efficient in channels operated in such cultural context than the Western channel to generate higher level of satisfaction whilst strategic performance on the exchange relationship.

Finally, it is worth mentioning that dependence asymmetry may not necessary imply exploitation by the dominant party of the weaker party. Past research findings argued that only a high level of interdependence and symmetrical power would lead to long term, stable and collaborative relationships. In this research, it shows that under an authority-based system, proper use of non-coercive power by the store will help small tenants to improve their strategic performance which also benefits the store. This means that the design of interfirm governance mechanisms can influence relationship performance.

6.4 Limitations and future research

6.4.1 Limitations

The sampling frame of this study drew data from only one side of the dyad, measuring the perception of the tenants. Ideally, with better resource support, one should collect data from respondents representing both sides of the dyad – department stores and tenants. With a dyadic approach, a more comprehensive measure of the ‘dependence’ construct could be used in such a way that one can include total power and power asymmetry of the exchange relationship.

The use of personal interview as a data collection method has its merits yet also limits the geographical scope of the sample due to the high cost and time incurred when using such an approach. As a result, only data from two major
cities in China were collected. However, given that China is a vast country, generalization of the findings has to be treated with caution.

6.4.2 Future research

This study has focused on use of power in asymmetrical, horizontal channel relationship in a developing country. It is possible to expand the current study to a number of areas for future research.

First, one can test the external validity of the current study by replicating the study in other similar settings. For example, a franchiser-franchisee relationship is similar to a store-tenant relationship in that they are asymmetrical, horizontal exchange that takes place in a plural form organization design.

Secondly, previous research on channel relationships stresses the importance of high level inter-dependency and symmetrical power for drivers of firms to build long term relationship. Since most of these researches are conducted in vertical channel settings, we may test those findings in horizontal channel settings in the context of symmetrical store-tenant relationship. For example, in the US and much of Europe, cosmetic counters are leased counters within department stores. In these cases, both cosmetic and store brands are very strong and more equal in power. It would be useful to test our model in developed countries within the constraints of well-established retail practice.

Thirdly, channel exchange relationships evolve in stages over time. Collecting cross sectional data which represent a snap shot of reality has limited usefulness for explaining such process models. In particular, in those markets where the channel context is rapidly changing (e.g. with China admitted into WTO, many distribution channels are undergoing reorganization or rationalization in response to foreign competition), inter-firm exchange relationships will become more dynamic and may be better captured through longitudinal data. It would be desirable if researchers collected longitudinal data with longitudinal research designs in future channel relationship researches.
Another opportunity for future research is to examine the impact of the level of dependence and use of power on exchange outcomes. Our findings showed that these could be two independent constructs having direct effects or a moderating effect on exchange outcomes. In addition, current studies only include positive outcome variables – economic/social satisfaction, commitment and strategic performance. It is recommended to include conflict as another outcome measure for future study. Given its negative valence and behavioral aspect, conflict is distinctive from the other outcome variables and provides a different perspective on outcomes.

In asymmetrical power relationships, it generally assumed that powerful parties would behave opportunistically by exploiting the weaker party to gain more benefits out of the relationship. The results of this study show that if department store use non-coercive power, it brings strategic benefits to both partners. Therefore, it is useful to find out how to motivate the dominant party in an asymmetrical power relationship to use non-coercive power for mutual beneficial exchange.

Finally, all long term exchange relationships are governed by power influence, norms and contract. How should these three control mechanisms be combined to achieve effective relational exchange? Answers to such question will provide potential opportunities for future research.
Appendix 1

**QUESTIONNAIRE**

*Dependence*

1. There are no other potential retailers who could provide us with comparable conditions.
2. Our total cost of switching to a comparable partner would be very large.
3. It would be difficult for us to replace the sales and profit generated from this partnership.

*Contingent Use of Coercive Power*

4. This partner undermines or punishes our firm when we do not follow their guideline and recommendations.
5. If we don't do what this partner wants, this partner provides poorer service and becomes difficult to work with.
6. If our firm rejects this partner's suggestions, we will receive harsher treatment from this partner.
7. If we don't do what this partner want us to do, they withhold resources and/or services that are important to our firm.

*Contingent Use of Non-coercive Power*

8. When our firm complies with this partner's suggestions, we get more favorable treatment from this partner.
9. We receive benefits or services from this partner when we follow their recommendations, but not when we disregard their recommendations.
10. If we do what this partner wants, they reward.
11. This partner shares expertise and information only when we comply with their suggestions and plans.

*Economic Satisfaction*

12. Our relationship with this partner has provided us with a dominant and profitable market position in our sales area.
13. We are very pleased with our decision to have our partner's products selling in the same store since their high quality increases customer traffic.
14. This partner provides us with marketing and selling support of high quality.

*Social Satisfaction*

15. The working relationship of our firm with this partner is characterized by feelings of harmony.
16. This partner expresses criticism tactfully.
17. Interaction between our firm and this partner are characterized by mutual respect.
18. This partner always explains the reasons for its policies

*Commitment*

19. The business of his partner and our business are closely meshed together.
20. We have developed a close business relationship with this partner.

*Strategic Performance*

21. We have gained strategic advantages over our competitors.
22. The relationship has resulted in strategic advantage for us.
23. We have gained benefits that enable us to compete more effectively in the marketplace.
References


York: Prentice Hall, Inc.


191-211.


in a Developing Country’, *Journal of Marketing Research*, vol. 23, November, pp. 387-393.


Varadarjan, P. R. & Rajaratnam, D. 1986, 'Symbiotic Marketing Revisited', *Journal of Marketing*, vol. 50, Jan, pp. 7-17.


