

**An Empirical Study of Marketing Environment, Strategy
and Performance in the Property Market**

By

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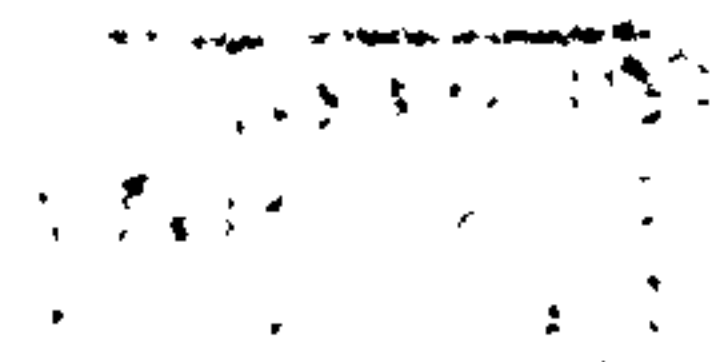
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Abstract

Determinants of business performance and marketing decision have been a major focus of research in the disciplines of marketing, strategic management, industrial organisation economics and resource based view during the last two decades. By adapting the industrial organisation, resource based theories and PIMS database research, the study proposes the organisation-environment-strategy-performance (OESP) framework and a model of property marketing in the Taiwan property market. The thesis proposed and tested an integrative model of business performance incorporating the major determinants of business performance, internal and external environment, and competitive marketing strategy.

The thesis proposed and tested hypothesised relationships among four external marketing environment dimensions, four internal marketing environment dimensions, seven marketing strategies dimensions and four performance variables. By focusing on both construct and tests of hypothesised relationships, the study aims to strengthen the empirical foundation of marketing strategy research. The research findings reported are based on a mail survey of 102 property marketing business managers. Separated and integrated models were developed, and the relationships presented in the research questions were tested using two-year panel survey and retrospective longitudinal study (year 2000-2001) of 102 firms in the Taiwan property industry. Pooled cross-sectional time series regression and multiple regression methods were employed to test the research hypotheses and exploratory propositions. This study enables a stronger test of the durability of the relationships posed in previous researches.

In the separated model, internal environment variables (market orientation, product advantage and resource commitment) were not found to be statistically explainers of variance in business performance. Of the external environment variables, demand potential and technological change were found to be key explanatory factors of variance in business unit performance. Marketing strategy variables such as product positioning and sales force expenditures were found to be statistically significant explanatory factors of variance in business performance. Product-market scope

strategy is affected by the product advantage and resource commitment while promotion element decision is affected by technical change and resource commitment. Distribution decision is determined by competitive intensity, customer orientation and prior performance. Product positioning is affected by the product advantage while strategic alliance is determined by market attractiveness and technical change pressure. No marketing environment and prior performance factors were found to affect sales force expenditures and pricing decision. The substitute of competitors factor is found to be statistically significant explanatory power of variance in market orientation and resource commitment. The dynamic marketing strategy model developed in this study may be followed up by other researchers, either directly in testing hypothesised relationships or as a basis for developing refined and extended marketing strategy research.

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Lists of Abbreviations and Acronyms

CAD	Compliant-Aggressive-Detached
CEO	Chief Executive Officer
CI	Competitive Intensity
CoO	Competitor Orientation
CuO	Customer Orientation
IO	Industrial Organisation
LSDV	Least Square with Dummy Variable
MA	Market Attractiveness
OESP	Organisation-Environment-Strategy-Performance
OLS	Ordinary Least Square
PA	Product Advantage
PIMS	Profit Impact of Marketing Strategy
PM	Product Market Strategy
PP	Product Positioning
PRI	Pricing
Pro	Promotion
RC	Resource Commitment
ROA	Return of Asset
ROI	Return of Investment
ROS	Return of Sales
RSV	Resource Based View
SA	Strategic Alliance
SBU	Strategic Business Unit
SC	The Substitute of Competitors
SCP	Structure-Conduct-Performance
SF	Sales Force
SG	Sales Growth
SGE	Sales Growth Per Employee
TC	Technical Change

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Chapter 1

Introduction

The chapter discusses the rationale for studying marketing environment, strategies and performance relationship in the property market. It also outlines the research background, the rationale for the research, research questions, research objectives, research scope, property market context and organisation of thesis.

1.1. Research Background

For decades, researchers have been involved in studying organisations and finding answers to the question of " why some organisations achieve higher performance than other?" The overwhelming interest of academic researchers in this question resulted in a rich but fragmented research that presents some paradigms that claim to be the answer to the question. Different factors contribute to the fragmentation and richness of the marketing literature on this issue. Hofer and Schendel(1985) highlight this complexity by pointing out the large number of organisational variables that can have a potential influence on organisation's performance.

Understanding and improving the functions of organisations and finding answers to be the central question of organisational studies, for example, " why firms succeed or fail" (Porter, 1991), has been an important research agenda in organisational studies for a long time. Most researches adopt success as central theme for exploring a firm's or a SBU's performance by building upon prior works of a number of different research streams of organisational studies.

Many industrial organisation (IO) studies (Caves,1980; Porter, 1979a ; Scherer, 1970) have focused mainly on the influence of the business environment on performance. The main research interest is to examine the difference in performance of groups of organisations, given that each group is facing a different business environment. Scherer (1970) indicates that organisations facing a different industry structure and

market concentration will exhibit different performances. On the other hand, much of the earlier theoretical work focusing on internal firm-specific factors and distinctive competencies as key determinants of firm success, was rapidly forgotten by strategic researchers, who influenced by the Harvard industrial organisation tradition scholars (such as Bain, 1951,1956; Caves, 1980; Porter, 1979b), turned to industry structure and market attractiveness in order to search for the key determinants of performance (Porter, 1980,1981).

In order to cope with these changing and more dynamic competitive conditions, new theories of firm superior performance have emerged from the work of marketing, strategy, organisation theory, and economic scholars in the last ten years. The new perspectives including resource-based view (RBV) of the firm, competence-based competition, and evolutionary theory, all share a focus on the firm's rare, valuable, and difficult-to-imitate resources (e.g. intangible assets, organisational capabilities) as the key determinants of superior performance (Wernerfelt, 1984; Day and Wensley, 1988; Barney, 1991; Dickson, 1992,1996; Bharadwaj et al., 1993; Hunt and Morgan,1995,1996; Hill and Deeds,1996).

The strategy-performance link is based on strategic management field and PIMS (profit impact of marketing strategy) of principle. The PIMS paradigm is employed to explain performance variance by sharing marketing experience at the business unit level in terms of market structure, marketing strategies pursuit by the business unit (Buzzell and Gale, 1987). Many strategic management studies (Hambrick, 1983b) have centred on discussions about the relationship between strategy and performance. The strategic management literature has also examined the linkages between performance and a variety of strategic variables. Considering the environment to influence the firm's conduct, and ultimately the organisation performance- both directly, and indirectly through conduct- is consistent with the marketing strategy models in the marketing literature (such as Kotler et al, 1998).

Therefore, two theoretical perspectives have dominated the marketing and strategy literature in recent years. Both industrial organisation (IO) theory and resource-based (RSV) theory have been support by some scholars (Collis, 1991,Barney, 1991,

Rumelt, 1974, Porter, 1991; Bain, 1951, 1956), but the efforts to integrate these theories, as suggested by Mahoney and Pandian(1992) are limited. The research intends to develop an integrative and dynamic model, based on industrial organisation (IO) theory, resource-based (RSV) perspective and PIMS paradigm in the recent theoretical work.

The importance of a dynamic perspective on Structure-Conduct-Performance (SCP) long been recognised in the marketing, management and strategy literature. Competition is a dynamic phenomenon, market changes, the competition environment change, technology changes, organisation resource changes and therefore firm success is not permanent. Dynamic nature of marketing environment, strategy and performance has been accepted by both academicians and industrial managers, but the dynamic nature under SCP framework lacks strong empirical evidence. Hence, the study will overcome the limitation of previous studies to develop a dynamic and comprehensive model in the property marketing business context.

The empirical study will be different from previous studies for considering the nature of dynamic market. To understand the dynamic relationship of marketing environment, strategy and performance over time, the study will overcome the limitation of previous studies based on collecting cross section and time series data. The statistical analysis method will combine time series and cross section analysis. An important advantage is that individual heterogeneity can be fully exploited. Based on previous literature review and empirical studies, market structure and the relevance of marketing environment and strategy variables are not stable over time. The study enable a stronger test of the durability of the relationships posed in previous studies by identifying whether the relationships obtained in that research persisted over time. Greater recognition of the dynamic steps in these variables would complement existing research in the strategy and marketing literature.

In sum, despite this growing marketing literature emphasises the importance of dynamic model, the empirical testing of these relationships is scant. Only some of these hypothetical linkages have been explored, but no integrative empirical work has been done until now. The lack of integration of knowledge, plus the lack of empirical

studies have been important limitations to the development of the explanation of firm's success and behaviour.

1.2. The Rationale for the Research

The research motivation for such inquiry is not solely an academic research but an essential and timely response to increasing turbulence in the property industry. The property industry has been hosting a new era of competition when construction investment, brokerage and advertising companies are facing intense competition not only on the basis of efficiency but also on being responsive to the changing needs of clients. The real development and trends of marketing strategy research have been addressed by a number of research studies in the real estate literature but these research focus primarily on either identification of importance and challenges of marketing or highlighting the necessity for real estate companies to shift their traditional focus (Malizia, 1990). The research complements these studies by providing important insights on how real estate companies can address these challenges for marketing strategy imposed by the new era of competition and achieve superior performance.

The main objective of this study is to develop a model of property marketing strategy that shows how the pressures and forces of business environment impact on the marketing strategies, and ultimately marketing performance of property marketing organisation. Significant researches have been done by Mavondo (1999), Pelham and Wilson (1996), Prescott(1986), Cavusgil and Zou (1994), Barrett et al(2000), Shipp and Lamb(1996), but found to be lacking in focusing on property marketing business. Since no such research had been conducted in property marketing business context, the study will be a replication or application study in nature.

The study of marketing strategies in property industry context is important for three main reasons. First, it is a general consensus that marketing function has a significant influence on the corporate performance and profits of a property business unit. Second, the dynamic and complex business environment are driving increasing number of property firms to pay attention to formulate and implement marketing

strategies because the number of competitors have been growing and sales have been decline in the property market. Third, knowledge of the underlying marketing strategies used and the relationship of some marketing strategies to marketing performance is limited in the property management field (Malizia, 1990), but marketing issues occupy the centre-stage in the strategic management debate.

Although the importance of marketing is growing in the property market, there is relatively little research on some organisations such as firms, industry and strategic business unit. The study is a small attempt at improving our understanding of the property marketing function in some property marketing organisations. It could be argued that the research findings from consumer goods or international marketing studies could be extended to the property marketing. However, there are important differences between property and other products marketing that necessitate the study of property marketing as a separate discipline. For example, the key difference lies in the business environment confronted by domestic/international marketers and property marketers. It implies that many empirical findings based on some previous study in marketing or strategy literature may not be pertinent in the property marketing contexts.

Another difference lies in the product characteristics. Property has durable, heterogeneous, expensive, immovable, and long term investment, production and purchase process characteristics. These six characteristics make property product different form other commodity. In comparison with other products, property marketing managers have to consider a much variety of target market, competitor and environment factors for effective marketing decision-making as compared with other customer and industrial products marketing. Also, the range of options on the decision of marketing mix elements, environment characteristics and performance measure is likely to be much wider and difference in the property marketing than it would be in domestic/ global marketing.

Thus, there are some important difference between property and other product marketing under the Structure-Conduct-Performance (SCP)framework. The important differences might be the environment factors or the organisational responses to the

environment. Given these differences, the research purpose is intended to efficiently estimate the performance response for marketing strategies and business environment, it is important to specify the model of property marketing that incorporates the key environmental, marketing strategies and marketing performance variables. Furthermore, such a model needs to be estimated with data that encompasses the wide and different range of variables which can potentially take in the context of property marketing. While a property marketing study may allow us to capture this diversity, other product marketing strategy study is unlikely to encompass the desired breadth and depth of marketing strategies and environment factors that affect property market performance.

Marketing concepts and models has been primarily investigated and analysed in some North American, United Kingdom or developed economy context, and a basic assumption has been made that this macro-environmental setting is stable given for research. A challenge is encountered when the research effort is subsequently focused on the emerging market, as that context is substantially different from politically and economically stable North American situation. Understanding the influence upon business operations within these environment contextual factors is critical. Moreover, there is growing interest among academic researchers and business practitioners in studying or understanding the property marketing strategy issues because of the significant impact of strategic marketing management on company profits and sales. It is important to do research in a context that the research objective is to understand the concept of the marketing environment, strategy and performance in the property market rather than merely evaluate the results from previous marketing and management studies.

Structural models make the interdependent of decisions explicit and therefore force the researchers to confront the endogeneity problem. Endogeneity arises because marketing strategy variables not only affect marketing performance, but marketing performance also affects marketing strategy variables. For example, advertising expenditures presumably increases the quantity sold, but advertising expenditures are often set as a percentage of sales. Similarly, prices are often set in response to observed sales performance, but prices have a major impact on sales. Considering for

the endogeneity of marketing strategy variables is crucial to obtain unbiased parameter estimates. It is hoped that the study can lay a methodological foundation and marketing strategy model that further marketing strategy research can follow.

The SCP paradigm postulates mainly the flows running from basic economic condition and market structure to conduct and performance as discussed later. However, there are also important feedback effects. In fact, almost all variables in the SCP model can be conceived as endogenous. Therefore, three equations are formulated and developed from intensive literature review. The three equations of the model contain variables included most often in the previous simultaneous equations studies treating the same variables as endogenous. The inclusion of these variables in the previous studies has generally been based on traditional hypotheses. The results of estimating the three equations of the research model are generally similar to those of the previous single and simultaneous equations studies.

1.3. Research Questions

Most previous marketing model demonstrates what aspects of the marketing strategies have positive or negative performance. Most of previous studies address some marketing strategy question such as: (1) Whether the environment-marketing strategy-performance relationship can be verified? (Cavasgil and Zou, 1994; Koh, 1991; Pellham and Wilson, 1996), or (2) To what extent is market performance influenced and explained by marketing strategy implementing which is contingent on the environment forces? (Cavasgil and Zou, 1994; Koh, 1991; Okoroafo and Russow, 1993; Mckee et al, 1989; Appiah-Adu, 1991; Shipp and Lamb, 1996; Barrett et al, 2000), or (3) What are the factors that contribute to success or good performance in a firm? (Cavasgil and Zou, 1994; Gardner et al, 2000; Manu and Siram, 1996; Koh, 1996; Okoroafo and Russow, 1993).

The key research question addressed in the previous study is : how and what extent the marketing environment and marketing strategies impact on the marketing performance in the property market. However, the reality of market is shown to complexity of the network relationship of marketing environment, strategy and

performance and dynamic model has previously not been research in much depth. The previous studies fails to consider the dynamic relationships among marketing environment, strategy and performance. Each of these foundations assumed that either the market conditions or the firm characteristics were static in nature. Understanding the dynamics of the market and the changing competitive nature of the markets is important to identify those factors that will provide for a sustainable competitive advantage.

However, with a dynamic external and internal environment, the previous literature has shown that current factors become insufficient in predicting performance. In addition, dynamic inferences from cross-section studies or qualitative research may be questionable. Comparing a large set of cases across both firms and time can enhance our ability to reach good inferences. This approach can study dynamic aspects of a problem as well as cross-sectional issues. The study enables a stronger test of the durability of the relationships posed in previous studies by identifying whether the relationships obtained in that research persisted over time. Therefore, the research intends to answer the following question:

1. How much of the variation in performance levels among SBUs is attributable to difference in environmental opportunities and how much can be accounted for by the actions of marketing strategy implementation over time?

The study also examines how and what extent the prior marketing performance and environment impact on marketing strategies decisions on the basis of organic perspective theory proposed by Farjoun (2002). Accordingly, previous studies fail to examine the feedback effect. The study will overcome some research limitation of previous study for examining the recursive relationship among marketing environment construct, marketing strategy construct and marketing performance construct by choosing appropriate research design and statistical approach.

Little empirical research has examined performance as a independent variables in the marketing and strategy literature. If a firm or SBU performed poorly are under considerable internal pressure to change marketing strategies and programmes.

Managers from some poor performance firms or SBUs will tend to be more critical thinking about the previous actions (Fredrickson, 1985). The last period of performance and environment pressure will encourage them to rethink their strategies and develop more comprehensive and rational strategic decisions (Mintzberg, Raisinghani, Theoret, 1976). By contrast, the literature suggests that a good performance might make effortless strategic or marketing decision (Bourgeois, 1980). Therefore, it is hypothesised that the degree of marketing programme and product-market strategy decision may be affected positively or negatively by prior performance.

The degree of marketing strategy decision is contingent on the characteristics of environment factors (Narver and Slater, 1990; Jaworski and Kohli, 1993; Slater and Narver, 1994; Atuathene-Gima, 1995). It is posited that the degree of marketing strategies decision is influenced negatively or positively by external and internal organisation environment forces. A competed firm knows the environment, market demand and the degree of competition and is more likely to align the marketing strategy to property market.

Hatten et al. (1978) states that organisations within the same industry have different resource capabilities, which will lead them to adopt different strategies. In the marketing literature firm's resources and capabilities profoundly influence the choice of marketing programme and ability to implement the chosen strategy (Porter, 1980). Furthermore, competition increases the likelihood of high level of marketing programmes decision and allocates more resource in the marketing programme. A firm will determine the firm's strategic opportunities under the competitive pressure (Caves, 1980; Porter, 1981). Marketing programmes should be implemented or invested in such a way to fit the environment (Hofer, 1975; Zeithaml and Zeithaml, 1984) as well as scanning the performance. Implementing marketing programmes is based on the principle of strategy-environment coalignment (Porter, 1980; Venkatraman and Prescott, 1990). The research question is formulated as following:

2. How does the past performance have led to the marketing strategies decisions and how does be accounted for by current environment factors?

In theory, the relationships are not strictly casual in one direction; there are also feedback loops - from performance to conduct, and to industry structure (environment)(Scherer, 1996). There may be feedback loops-from performance, strategy and to environment (Leeflang and Wittink, 2000a). However, for easing of modelling, the relationships are assumed to be unidirectional, from structure, to conduct, and finally to performance in the existing marketing or strategy literature. Dickson et al. (2001) also indicates that market analysts and marketing strategists stress understanding the fundamental dynamics of a market. However, Dickson et al. (2001) questions what frameworks researchers use in such thinking and how deeply the researchers think about the interplay of such fundamentals. Furthermore, Performance outcomes will affect both the resource base of the firm and the environment in which it operates (Hooley et al, 2001). Qualitative argument that a performance superior to competitors is likely to result in enhanced reputation assets, improved financial resources, and greater managerial confidence and resource commitment (Day,1983) and implementation abilities. Moreover, performance outcome of one firm will affect the strategies adopted by competitors and firm itself (Hooley et al, 2001):

Additionally, since the strategy-structure sequence (Day and Montgomery, 1994) and the learning sequence are essentially reciprocal and changing over time, the question is “ which come first?” The question cannot be answered in previous studies. The IO SCP framework and resource based theory posit non-recursive, that is, no reciprocal, feedback effects from performance to strategy and to the environment. The theories postulate that managers not only react to the environment pressures but also engage in actively managing and changing it to sustain their competitive advantage. However, such non-recursive relationships could be tested due to the cross-sectional nature of the data.

Accordingly, Hooley et al (2001) suggests a continuous process of strategy formulation and implementation resulting in the creation of competitive position and performance which might have strong feedback loops to reinforce the resource base of the firm and alter the market environment in which it operates. However, the key

issue is how to response and manage the marketing function to improve marketing performance in the marketing environment in the property market. The structure-conduct-outcome (SCP) framework needs to extend or revise for explaining marketing observations and phenomena. The revised conceptual framework will be used to explain the determinant of performance in terms of external and internal environmental and marketing strategy factors and feedback effect on the marketing strategies and environment construct.

Laurent (2000) has argued that the feedback loops is the basic constituents of economic and social systems and also suggests that any real system is likely to include a number of feedback loop, certainly at least one. It arises from the existence of a double simultaneous casual relationship, in which the dependent variable in one equation becomes the explanatory variables in another equation (Laurent, 2000). Overall, the problem arises from the fact that too many variables, sometimes all variables are endogenous (Laurent, 2000). The research hypothesis should come from a thorough study based on information derived from the real system and the involved actors and not from a lonely decision by the model builders (Laurent, 2000). Based on the face validity and reliability, the study assumed that only internal firm organisation environment is influenced by the external environment and prior performance.

3. How do external environment and prior performance affect the internal environment of a SBU?

Cavusgil and Zou's(1994), Manu and Sriram's(1996), Koh's(1991), Appiah-Adu(1991) and Shipp and Lamb's(1996), Kotabe et al's(1991), Pelham and Wilson(1996) and Barrett et al's(2000) studies use both consumer and industrial firms in their sample could have introduced a high level of random error into the measurement of the construct of the marketing environment, strategy and performance due to the potential differences across industries, firms or strategic business units (SBUs) in the research construct of each measure. Our objective of this study is to maximise, to the great extent possible to differences in the industry and market characteristics under examination, which blocking on individual influence not under examination.

However, the practice of examining marketing performance and strategies across all environment for the homogeneity hypothesis has been questionable. In practice most of firms differentiate the marketing programme, implement the different degree of market orientation and allocate different level resource commitment for the property marketing business. If the marketing environment or strategies are not homogeneous and environment, strategy and performance change over time, then results from pooling data across industries and firms have questionable validity. Also, one must question whether the same marketing strategies and performance are of equal appropriateness in different competitive environment. To examine this question, the research attempts to identify different respondent characteristics and then examine the performance and strategies difference within and across the various marketing environment over time. Thus, the specific research question was to formulate:

4. What differences exist in marketing managers' perceptions regarding performance based on each of the following characteristics of the property firms:

- (1) City in which company headquarters is located**
- (2) Company type (construction investment, brokerage and advertising firms)**
- (3) Company size**

In sum, despite some preliminary theoretical developments based in organic perspective on strategy (Farjoun, 2002), only limited empirical attention has been given to investigate the network relationships among marketing environment, strategy and performance constructs. Only some of these hypothetical linkages have been explored, and no integrative empirical work has been done until now. The lack of integration of knowledge and the lack of empirical studies have been important limitations to the development of the evolutionary explanations of firm's success. Therefore, recognising the limitations of existing studies on the SCP framework, the thesis has the following research objectives that are discussed in the following section.

1.4. Research Objectives

The research tends to develop a dynamic model to interpret and examine the empirical links among environment characteristics, marketing strategies and marketing performance because process, integrative and dynamic models are sparse in the empirical research. The research objective is achieved by adopting a conceptual framework that is based on the synthesis of three predominant perspectives of organisational studies including industrial organisation (IO), resource based view (RBV) and PIMS paradigm. It will be to contribute to an increase understanding of the empirical links of marketing environment, strategies and performance.

The overall research objective is to strengthen the empirical foundation of marketing strategy research. It is also hoped that the models developed here will be of future use to marketing strategy researchers, either directly in testing theoretical network and model or as a basis for developing refined and extended marketing strategy research. Specifically, research objectives are:

1. To develop an integrated and dynamic model of examining the relative impact of external and internal environment factors, competitive marketing strategy and business performance and to test network relationships among marketing environment, marketing strategy elements and marketing performance within the proposed conceptual framework.
2. To empirically test such dynamic model, therefore also contributing to organisation-environment-strategy-performance (OESP) framework that has lacked empirical research.
3. To analyse the synthesis of different schools of thought can make to better understanding of the complex nature of a SBU's marketing environment, strategy and performance. One major contribution of the thesis is the integration of diverse theories. The task here is to advance the literature by justifying the synthesis of these theories through the use of an extended OESP framework.
4. To extend a theoretical foundation and develop a dynamic marketing model which further strategy and marketing research can follow.

In addition, the research objective of this thesis is to specifically estimate a simultaneous equations model. The thesis will contribute to the literature in two ways:

1. Most of the empirical studies have been based on traditional approaches. However, the theory of IO and RSV has been substantially reformulated in a more rigorous manner. Thus, the study will offer new interpretations for the results of previous studies by using collecting cross section and time series data. In addition, through the consideration of the traditional hypotheses, the results of the research will comparable to those from the previous studies.
2. The estimation of the model will be performed using primary data from the Taiwan property marketing business context. This will allows the research to bring new evidence for several hypotheses embodied in the proposed equations.

1. 5. Research Scope

Within the strategic management literature, the level of analysis has generally been at the firm (Barney, 1991; Wernerfelt, 1984) or industry (Caves, 1980; Porter, 1980; Scherer, 1980). Alternative strategies level can be studied at three level: at the corporate level, at the business level and at the level of business functions such as marketing (Hofer and Schendel, 1985). The unit of analysis for this study is individual strategic business units (SBUs). This was accomplished by focusing on the individuals responsible for the marketing decision and performance at the strategic business level. The study also focuses on property marketing managers of SBU in the property industry and will limited to more experienced marketing managers who rely on almost 100% sales from marketing to end-users in the Taiwanese property market. It is consensus that by concentrating on more experienced marketing managers with understanding a wider variety of marketing strategy can be identified.

The study will focus on sales transaction market excluding leasing market because most real estate firms generate revenue from sales transaction marketing. Most previous property literature survey brokerage or development firms, but in Taiwan marketing department of property investment firms and advertising firms are also involved in marketing business. The study should also cover the latter two types of companies. Accordingly, this study concentrates solely on the structural aspects of marketing end-user consumers rather than upper- and mid-stream value added chain customers. In final, this study concentrates on the strategy content and therefore little focus have been placed on the decision characteristics of the marketing strategy process. Therefore, the strategy process would be beyond the scope of this study to include these issues.

1.6. Property Market: The Survey Sample in Context

The objectives of this section are to provide a general background for Taiwan, the country under the study. It aims to provide an overview of characteristics of those property firms and their management participating in the survey.

The section is divided into three major sub-sections. Section 1.6.1 provides a brief country profile including geography, population and economy. Section 1.6.2 describes the property industry of Taiwan, based on SIC classification. Section 1.6.3 reports on the characteristics of firms participating in this research including their management characteristics. Section 1.6.4 describes the rational for researching property market.

1.6.1. Country Profile: Taiwan

Taiwan, known for Formosa, is an island about 160 kilometres of the southeast coast of Mainland China. Taiwan is located at the east of Mainland China across the Taiwan Straits. The island measures the length of 377 kilometres and the width of 142 kilometres. Taiwan has an area of 36,000 square kilometres or approximately the same size such as Holland. Its length from north to south is about 377 kilometres, and 750 kilometres from west to east.

The topography of Taiwan can be divided into four main metropolitan areas: the north, the central, the south and the east region. The capital, Taipei, is the financial, trade and commercial hub. Kaoshing is an important manufacturing and port city in the south, and Taichung carries out similar functions on the west coast. Most industrial activity concentrates on the west coast, the east coast remaining comparatively underdeveloped.

Taiwan's climate is subtropical but pleasant. Summer runs from May to October, and a mild winter from December to February. Rainfall is abundant, averaging 2,500 millimetres (100 inches) annually. Local and seasonal variations are numerous. The north is often rainy in the winter and the south in the summer.

Population

The country had a population of approximately 22.7 million in 2004 with approximately 18.5 million living in cities. A compulsory 9 years of compulsory education since 1968 has ensured that the country now has a literacy of 97 percent. Its labour force of 10.85 million in a working age population of 17.4 million is well educated and highly skilled. Recently lower economic growth has raised Taiwan unemployment rate from 2 percent in 1995 to nearer 5 percent. However, the country is short of unskilled labourers and has staffing shortfalls in labour intensive forms of manufacturing and science-based industries.

Economy

Taiwan has experienced rapid economic growth. The World Bank considers Taiwan as a newly industrialized country (NIC). The island economy has undergone significant changes since the mid-80s, as agriculture and labour-intensive manufacturing receded in the face of rising activity in the service sector and high technology manufacturing, principally in high-end electronics and computers. Until March 2004, 67.74% of the workforce was employed in services while agricultural production had shrunk to 5.05%, and overall manufacturing to 27.21%.

Taiwan's estimated gross domestic product(GDP) of 2003 is reached to be US\$ 296 billion, representing 3.3 percent real growth since 2002. Similar percentage growth is predicted for 2003. Per capita GDP in 2003 is reached to be US\$ 13,156. Indicative of rising living standards, the national objective for 2004 is a GDP of US\$ 302.5 billion or US\$ 14,379 per capita and an average of 5.4 percent annual growth in GDP. General economic indicators are shown as Table 1.1.

Table 1.1. Taiwan Key Economic Indicators

	2001	2002	2003	2004 (F)
Population (millions)	22.433	22.521	22.605	22.724
GDP (US\$ billion; percentage change)	286.9 (-2.2%)	289.3 (3.6%)	295.8 (3.3%)	302.5 (5.4%)
GNP per capita (US\$)	12,876	12,916	13,156	14,379
CPI (percentage change)	1.3	2.1	1.4	1.2

Data Resource: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan.

Price stability has been another hallmark of Taiwan's development. Aside from the brief periods following the two oil price shocks- 1974 and 1980-81—the government has managed to keep inflation in single digits since 1960s. Increases in the consumer price index(CPI) averaged 1.3% in 2001; 2.1% in 2002; and 1.4% in 2003. Keeping inflation will stimulate more residential and commercial property investment and consumption.

Services have been a major contributor to the economic growth of Taiwan. The value of services is approximately 67 percent of the country's GDP in 2003. The Taiwan economy assumed a major challenge: the rapid transformation of Taiwan's economic structure with service industries as the mainstays of the economy. The significance of

services to the Taiwanese economy can also be seen in the contribution of services to Gross National Product. Table 1.2 shows the Taiwan structure of domestic production.

Table 1.2 The Structure of Domestic Production

	Agricultural	Manufacture	Service	Total
1999	2.56	33.19	64.25	100
2000	2.09	32.38	65.53	100
2001	1.95	31.09	66.96	100
2002	1.86	31.05	67.10	100
2003	1.82	30.38	67.79	100
2004 (f)	1.64	28.87	69.49	100

Data Resource: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan.

The service sector has the most contribution to the GDP, 67% in 2003(Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan). The percentage of blue-collar workers and farming workers is declining compared to the white-collar employees working in the service industry. Because of the increasing importance of the service sector, and the researcher's long-standing participation and interests in it, this sub-sector –real estate investment and agency firms are chosen for this study.

The finance, insurance, real estate and business services sector, which accounts for approximately 32.3 percent of GDP (see Table 1.3). Since 1996, the real estate industry is progressively deregulated and foreign participation liberalized, driven partly by Taiwan application to join the World Trade Organisation and partly the government's desire to improve performance of the country's financial system.

Table 1.3 Components of GDP, Taiwan,2003

Industry	Share of GDP(%)	Growth(%)
Agriculture	2.4	0.2

Manufacturing	23.6	4.7
Electricity, gas and water	2.5	3.6
Construction	4.3	3.5
Wholesales, retail trade, restaurants and hotels	17.5	9.6
Transportation, storage and communication	6.7	7.1
Finance, insurance and real estate	32.3	10.2
Business Services	10.7	4.6

Data source: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan, Government Statistics of ROC.

Although the efforts of restructure and upgrade industry have been underway, the task is made more difficult and prolonged by Taiwan's present industrial structure. The service sector and the rest of the economy are dominated by small and medium-sized firms (see Table 1.4). As of 2003 (latest data available), 96.4% of all enterprises in Taiwan was also classified as small and medium enterprises.

Table 1.4 Small and Medium Enterprises in Taiwan (in year 2003)

Industry	All Enterprises	Small and medium enterprise	percent (%)
Agriculture	16,104	16,025	99.51
Manufacturing	121,746	188,744	92.50
Electricity, gas and water	57	39	68.42
Construction	19,399	18,768	96.75
Wholesale, retail trade, restaurants and hotels	434,658	428,505	98.58
Transportation, storage and communication	30,493	29,962	98.26
Finance, insurance and real estate	24,283	22,645	93.25

Business Services	58,476	58,349	99.78
Total	705,216	663,037	96.41

Data source: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan, Government Statistics of ROC.

Notes: An enterprise with operating capital or business revenue of less than NT\$ 40 million is defined as a small or medium enterprise.

It is important to note that this research was conducted when Taiwanese companies were in the midst of this economic depression with negative growth(during 2000-2001 period), for it was a time when the organizational performance of Taiwanese companies was, compared with previous standards, poor.

1.6.2. Taiwanese Property Market Overview

In general, millions of property organizations have been classified in terms of economic basis and consumers' perceptions. Economic-based classifications are by ownership, dollar sales volume, the number of employees, the number of outlets, Standard Industrial Classification (SIC), and so forth.

Property industry can be categorized by government SIC codes, which are fairly meaningless to most property market managers, but a better measure of competitive power in evaluating market strength and supplier bargaining power. Within property marketing category, some small firms dominate property product areas making product competition in a particular category intense.

The property industry, as defined by Standard Industrial Classification (SIC) code 6611(Real Estate Investment) and 6612 (Real Estate Agencies), includes establishments primarily engaged in making similar products and working or marketing property products. Establishments such as property investment firms primarily engaged in manufacturing or marketing property are classified in SIC 6611 while those firms including brokerage and advertising firms engaged in marketing property are classified in SIC 6612. Table 1.5 shows standard industrial classification of the Republic of China (Taiwan) for the real estate industry.

Table 1.5 Standard Industrial Classification of the Republic of China (Taiwan) for the Real Estate Industry.

Code Number	Sub-Code Number	Sub-Code Number	Industry
66			Real Estate
	661		Real Estate Operation
		6611	Real Estate Investment
		6612	Real Estate Agencies

Data Resource: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan, Government Statistics of ROC.

Although researchers have grappled with the issues of property industry for a long time, there are no well-established definitions in the academic literature. For example, in Taiwan different terms such as “real estate” or “property” are used to describing similar strategies, firms, business, industries, investment and environments for discussing on how to create and manage a successful enterprise. In Taiwan the three types of companies including property investment, brokerage and advertising firms are categorised into property firms. Unless indicated otherwise, in the study, the terms “real estate” and “property” are used interchangeably in a generic sense, and do not reflect any particular type of strategy, firm or business environment.

The property industry is the collective term for all sub-industries, processes and activities that deal with the creation and utilisation of the built environment. The term “property industry” means the utilisation of property, to denote separate industries. The property management (operation) process encompasses all activities of planning, acquisition, design, construction, operations, and maintenance of properties and the relative and interweaved business activities, such as financing, marketing and other services. In this study, property marketing is the final stage or exchange stage and merely a subset of the overall property industry.

According to the Real Estate Agency Act of 1996, any property firms engaged in marketing function or activities must hire licensed brokers. Throughout this work,

though it is not technically correct, the term “broker” is used to represent all salespeople whose licenses are held by a particular property firms in Taiwan. That is, the term broker represents both individuals licensed as salespeople and brokers. The term “firm” is used to represent the legal entity holding these licenses and includes the management structure of a residential or commercial property company.

Academia and industry leaders commonly use the term “building industry” or “construction industry”, meaning the planning, land acquisition, design, and construction of property classified as construction industry(SIC number : 38) in Taiwan, and the term “property industry” meaning the management of property, to denote separate industry. The property development process encompasses the relative and interweaved business activities, such as financing, marketing and services. The nature of construction industry is beyond the research scope in the research.

Broker or salespeople is “a registered collective membership mark that identifies a real estate professional who is a member of the Professional Association of Property Investment, Brokerage and Advertising and subscribes to its strict Code of Ethics”. Only members in good standing may be identified as broker or agency. While the term is often used to describing a general population of people involved in property marketing, it is actually a trademark held by the organization.

The significance of property industry in Taiwan is underscored by its contribution to the economy. Table 1.6 details sales in 1996 and 2001 for various components of real estate industry including real estate operation (SIC code: 6611 and 6612) and other real estate (SIC code: 669) in Taiwan. Total real estate sales for 2001, the latest year for which data are available, were US\$ 206.9 billion; represent 34.6 percent growth from 1996.

Table 1.6 Sales of Real Estate by SIC code, year 1996 and 2001 (US\$ billions of Dollars).

	Year 1996	Year 2001	Percent change
Real Estate	149.3	212.6	29.77

(SIC code: 66)			
Real Estate Operation: Real Estate Investment and Agencies (SIC code: 6611 and 6612)	135.3	206.9	34.6
Other Real Estate (SIC code: 6691 and 6699)	13.996	5.6	-145.59

Data Resource: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan.

The period from the mid-1980s to today has seen wide swings in the economy of Taiwan, and these swings were well reflected in the residential and commercial property. The Taiwan economy moved from a period of economic expansion in the mid-1980s to a brief recession at the 1990s and 2000s. When the economy entered a recessionary period at the beginning of the 1990s, property sales fell when the economy has experienced recession. Therefore, Marketers continue to face more competitive pressure in the property market.

Since property (real estate) industry is closely linked to economic development, it is necessary to look as economic development in Taiwan to understand why the property industry in Taiwan developed as it did. Property development will trigger development of other related industries such as building materials, construction and even the finance sector, which in turn lead to healthy economic growth. More jobs and higher incomes mean less unemployment and higher consumption.

Like business cycles, property cycles exhibit periods of recovery, boom, recession and bust. In practice most participants in the property market examined two types of property cycle theories: exogenous and endogenous. The exogenous theories of property cycles are concerned with the broader context of the particular characteristics of wider economy and their effects on the property markets while the endogenous theories of property cycles are concerned primarily with characteristics of the property markets.

Property development has made a pillar of economic growth in Taiwan, and business cycles brought by the changing macroeconomic environment tend to affect the property cycles. In 1960s, property transaction sales was only 1.3% of the Cross Domestic Product in Taiwan, it surged to 5.7% of the GDP in 1998. Recently, property transaction sales accounted for 5.7% to 7.8% of the GDP and reached 7.8% in 2003 (please see Table 1.7).

Table 1.7 Property Transactions as Percentage of GDP in Taiwan(units: \$US billion)

Year	GDP	The Sales of Property Transaction	Percent
1998	269.3	15.1	5.7
1999	290.6	18.0	6.2
2000	314.0	18.2	5.8
2001	286.9	17.8	6.2
2002	289.3	21.7	7.5
2003	295.8	23.1	7.8

Data Resource: Taiwan Statistical Yearbook, 2004

The property industry in China started to pick up in 1989 and had experienced moderate growth in 1990 and 1991. In 1978, the dollar value of property transaction sales was only 0.9% of the Gross Domestic Product because the Chinese government has the rights to allocate residential or commercial property. With the introduction of housing reforms in 1986, it surged to 7.6% of the GDP. In the decade that followed, property transaction sales accounted for 7.7% to 8.6% of the GDP and reached 8.2% in 2001, 8.6% in 2002 and 8.5% in 2003.

Table 1.8 Property Transactions as Percentage of GDP in China(units: \$US billion)

Year	GDP	The Sales of Property Transaction	Percent
1998	929.7	75.3	8.1
1999	973.4	74.9	7.7
2000	1,066.1	76.8	7.2

2001	1,156.6	94.8	8.2
2002	1,251.1	107.6	8.6
2003	1,156.7	98.3	8.5

Data Resource: China Statistical Yearbook, 2004

Economic recovery seems to be faster than recovery from a property bust in Taiwan and China because the product life cycle of property development is long (normally 2 to 4 years). Hence, it takes longer time for developers and marketers to adjust to change in demand while the economy will improve, for instance, the SARS epidemic waned. In China that was attributed to steady economic growth, housing reforms, the second-hand housing market, increasing investment in real estate, and higher incomes among China's population. Therefore, property development plays an important role in accelerating China's economic growth. In China economic growth brings increasing and gives rise to demand for offices, retail, industrial and residential property. This will drive up property prices and increase the capitalisation of the real estate assets. Thus, developers can borrow more from banks for further real estate investment to meet the increased demand from people with improved income.

As more people aspire to the security of homeownership and consumption patterns, residential property marketing has become Taiwan's core industry. According to the market survey of Directorate Central of Budget Accounting and Statistics Executive, most of the Taiwanese consumers accept the price between NT\$ 4 million and NT\$ 6 million for a residential property. People living in big cities like Taipei, Teaching and Coshing region represent the biggest purchasing power for residential properties. Owner-occupied residential property composes a major part of household wealth. In Taiwan, housing wealth as a fraction of household net wealth has fluctuated between 60% and 80% during the post-war period. Sales emphasis also has been changed from city to suburb and buying behaviour has been switched from low to high grade products. Approximately 95% of all residential properties in Taiwan were sold by through real estate investment and agencies companies. Deregulation has fostered some foreign real estate investment. Late in 1996, the Government of Singapore Investment Corporation became the first foreign concern to invest in Taiwan real estate via a joint venture in a Taipei residential project.

During the last three decades, the property industry in Taiwan has experienced in many challenges the most significant growth in competition and keeps pace with the other forces driving change in the environment. The increasing competition is a result of the massive expansion of property investment companies, advertising and brokerage firms. Another important contributor is the increase in transaction sales.

The choice of Taiwan as the country for this study was based on several factors. With regard to developing countries, empirical research on marketing strategy is even more limited because it is focused mainly on the markets in the US and other developed countries. There appears to be a need for further empirical studies on the practice of marketing strategies by property firms in developing countries which also assess the generalization of existing knowledge. Another reason for choosing Taiwan is that most previous research in marketing strategy has been conducted from a U.S. perspective, and Taiwan can be considered a starting point to investigate the marketing strategies which lead to success in marketing and how successes which work in developed countries are not the same as those which work in developing countries. Taiwan is a developing country where there exist differences from the US and UK in terms of culture, marketing infrastructure, government regulations, socioeconomic conditions, political and legal systems, stage of economic development, customer values and life styles.

1.6.3. Property Firms Participating in the Research

A large number of firms are engaged in property marketing services. The 2001 Census of Directorate Central of Budget Accounting and Statistics Executive reports 17,020 such establishments in Taiwan, but most industry experts put that figure to 289 (please see Table 1.9 and Table 1.10). The large discrepancy is attributed to the thousands of tiny firms(basically one-person, do-it-yourself ventures) or no marketing activities that do not qualify for inclusion in the research. As in most industries, few large firms dominate and are responsible for a significant proportion of industry sales. Ten firms were responsible for 41.5% of industry revenues in 2003, according to the market survey of professional association.

Table 1.9 The Size of Firms by Employees in the Real Estate Investment and Agencies(Official Statistical Data)

Number of employee	2001	1996	Percent change
Less than 5	13,372	11,919	12.19
5 – 9	2,191	11,919	-48.01
10-29	1,056	2,629	-59.83
30-49	217	234	-7.26
50-99	120	108	11.11
100-499	55	43	27.91
More than 500	9	2	350
Total	17,020	19,149	-11.12

Data Source: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan.

Another approach to identify the market boundaries is to consider every participant connected with property marketing business. Property marketing business involves many participants in a great variety of interactive relationships. The industry is comprised of a large number of small and diverse firms. In Taiwan, in 2003, there were approximately 289 active sales firms licensed, according to professional association. The broker or agency is awarded to completion required course, and only one certification programme is available in Taiwan. The educational requirements for licensure are among the highest of any profession in Taiwan, which is subject to licensure laws and standards of professional conduct. In Taiwan, having a university education(or more), the taking of some real estate courses designed primarily for preparation to take national licensure examinations, and passing the examination is all that is necessary to become “qualified” as a licensed real estate association. Not all real estate professionals are members of professional association. Therefore, they cannot engage in marketing business since 1999. The study identified the sample from the membership lists of professional association. This is in an effort for not to

confuse future studies that may use all participants to signify all real estate professionals, even if they are not members of professional association.

Table 1.10 The Number of Real Estate Investment and Agencies Firms(Professional Association Census)

Company Type	SIC Classification	Number
Property Investment	Real Estate Investment	204
Brokerage	Real Estate Agencies	29
Advertising	Real Estate Agencies	56
Total		289

Data Source: Property Investment Professional Association, Taiwan, Brokerage Professional Association and Advertising Professional Association.

Another major trend in Taiwan has been the increase in the average size of firms in the property industry (shown in the Table 1.9). The Taiwanese property firms have accelerated its steady evolution from an industry made up of small independent owner-operators to a market dominated by large enterprise. According to industry publication, the 350% growth of in large enterprise is fuelled by a surge in mergers and acquisitions. However, unlike the banking and finance sectors, little progress has been made to consolidate the industry, so the Table 1.11 shows that the average number of employee is decreasing. Further consolidation should continue in a marketplace where larger barriers to entry and exit exist in the Taiwanese property market. At present, Taiwan property firms are still dominated by small- and medium-sized firms (see Table 1.11).

Table 1.11 The Average Number of Employee (units: person)

Industry	2001	1996	Percent change
Real Estate	7.3	8.0	-9.32
Real Estate Operation	6.4	7.6	-7.28
Other Real Estate	5.1	6.2	-6.45

Data Source: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan.

According to latest Directorate Central of Budget Accounting and Statistics survey, 51,902 full time jobs were supported by property investment and agency industry in 2001 (shown in the Table 1.12). The numbers of employee for engaging in real estate are decreasing dramatically. This main reason is that market force, brought on primarily by the Real estate Agency Act of 1997, has led to dramatic changes in the way property firms meet their marketing regulation.

Table 1.12 The Number of Employee by Industry

Industry	2001	1996	Percent change
Real Estate	63,517	95,417	-33.43
Real Estate Operation	51,902	88,583	-41.41
Other Real Estate	11,615	6,834	69.96

Data Source: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan.

Table 1.13 shows that property sector's profitability is a new record both in absolute dollars as well as in percentage terms. The property industry experienced significant losses during the major recession. Historically, property firms are not the highest profit margin companies, nor do they tend to be market trend leaders in most developing countries.

Table 1.13 The Total Profitability of Real Estate Industry (units: percent)

Industry	2001	1996	Percent change
Real Estate	5.12	15.47	-10.35
Real Estate Operation	5.27	15.62	-10.31
Other Real Estate	3.71	3.71	-6.08

Data Source: Directorate Central of Budget Accounting and Statistics Executive Yuan, Taiwan.

Historically, the property marketing business has existed because of the lack of market information. Buyers and sellers needed marketing communication programmes to assemble market information that was too costly and time-consuming for them to amass for themselves. Property markets, unlike most financial asset markets, consist of vastly differentiated sets of goods or attributes. The differentiated sets of goods in property market, called property attributes, are varied across markets. The actual process of creating defined market area is crucial in the process of market segmentation.

Property market consists of two segments: commercial property and residential property. It was felt that the distinction between the residential and commercial segments was necessary because of differentials in the structure and nature of competition between two segments. The residential property sector is characterized by many small and geographically restricted organizations. The commercial property portion is associated with larger and geographically broader-based firms.

It may appear initially that the market for the commercial property of the developer is industrial product in nature; its reality is an industrial or business market because the developer markets the single family home sites and multifamily and commercial parcels primarily to homebuilders and commercial developers, not the end-user. Now that the research target has been delimited as the residential property marketing business, the marketing activities of interest within this investigation must be specified.

Based on the service classification scheme, the property marketing service can be classified into relatively high labour-intensity, high customer contact and low customisation service. Furthermore, marketing is a function of management in property service industry as in any other industry such as selling its services and its reputation of a company. In the property marketing service industry, marketing strategy has one key function: finding out what consumers need or want, organising

the resources of the firm to fulfil these needs or wants. When determining suitable policies and programmes, both buyer gains and the seller profits from the transaction.

However, there are significant dissimilarities between service and property marketing industry. Both the service and property service industries are fully based on the customer's trust. With service, the company is the primary brand. In this study, those dissimilarities are explained by laying stress on the property industry.

First, the attitude and motivation of customer must be considered. The customers of the property industry are very proactive in becoming part of the service and eager to get something out of the services that purchase. Therefore, they want service to be very informative and beneficial while buying it. The means the purpose of being part of the service is a bit different between the real estate industry and other service industries.

Second, the purchasing process must be identified. Consumers of other service industries purchase services under the individual purchasing process and needs. However, consumers of property buy services based on the group purchasing process and needs. Pre-qualified buyers are also utilising the group purchasing process when the marketing business is generated at the property industry. As is true in other industrial and household buying situations, number of individuals may be involved in making a single purchase decision. In fact, joint decision making may be more rule than exception in property market. While all these family individuals may, from time to time, make final purchase decisions, there are many additional antecedent roles that are usually performed. There does appear to be consensus that more individuals are involved in a typical industrial purchase than in a typical consumer household purchase and their greater formality is present in property purchase decision making.

In this study, buying is viewed as a complex process rather than a single instantaneous act to buy. The process can be divided into component parts and analyzed separately in order to ascertain how the components affect the total system. The entire process may be performed by numerous individuals and may operate over a lengthy time span. The process may have both formal and informal mechanisms which specify which

performs a component activity, when it is performed, and how it is performed. While the final decision to buy may be the most visible process, it is only part of the buying process, and when used as a vehicle to understand the total buying process it may be inadequate.

Finally, the unique characteristics of each single property and its consumers should be identified. Each single property is unique in the real estate industry. In spite of market sharing, each property is different in trying to differentiate their strategies to exploit specific markets. They know that is the only way to survive in the extremely competitive market of this industry.

Three main types of companies are active participants in the real estate industry: brokerage, advertising and property investment. From the competitors perspectives, the study will select similar competitors (property investment, brokerage and advertising companies) to allocate similar marketing resources on the demand side market to examine the dynamic contingency relationship in the similar firms. Unlike previous studies, the research of marketing environment, strategy and performance concepts are limited across industry or firms or both. The research examines how and what extent the marketing environment and marketing strategies influence the market performance across competitors. In Taiwan these competitors for consumer property market include property investment companies, brokerage companies and advertising companies. These competitors allow for substantial variation in marketing strategies.

This problem of relatively stagnant growth is not due to a lack of marketing growth opportunities. Competitive “ sameness “ is perhaps the most encompassing problem throughout the industry. Each industry faced with its own challenges. Property firms discussed below will comprise the sampling frame for this thesis.

The property investment companies, led in sales by Kingdom, Cathay and Prince in Taiwan, are experiencing stagnant growth rates. The industry as a whole is currently challenged by value-conscious consumers and is under siege from brokerage and advertising firms. Expected future developments include continuing industry

consolidation and a more favourable long-term outlook due to an anticipated shift in consumer spending.

The advertising firms, lead by New Land Group, are characterised by modest growth. Consolidation and smaller firms going out-of-business have left the industry with fewer and stronger players. Also challenged by off-pricers advertising firms, traditional advertising are streamlining operations to eliminate cost-redundancies and most have converged on moderate price points as their best value statement. Future growth is expected to be modest.

In comparison to the stagnant growth rates experienced by advertising and property investment firms, the brokerage firms boast 3 consecutive years of double-digit growth. Hsing Yi, the leader, is experiencing a growth rate three times as much as its closet competitor in the brokerage industry, Pacific. Despite its growth, the industry is characteristic as mature with limited geographic expansion potential. Given the value-consciousness of consumers, the outlook for this type of firms is increasingly bright.

Basically, brokerage and advertising companies are similar to marketing exchange companies. Marketing exchange and brokerage companies have similar characteristics: (1) have a grand marketing information system such as market and customer information (2) a brokerage system (3) products and marketing services. They will not locate any significant R&D or manufacturing functions within its business boundaries, so there is little scope for inter-functional sub optimisation.

Similarly, the property investment firms are manufacture-orientation industry. The type of companies is similar to UK property trading companies (PTCs) with deriving their income from buying and selling property. Similar to the situation in the UK, property investment companies also seek rental income from property market. However, most of property investment firms seek income from sales transaction projects because of less risky in Taiwan.

The above tree type companies have different distribution channels. The marketing department of property firms is regarded as corporate channel which is centrally owned and operated vertical marketing systems. Although the marketing managers assume that there are no contracting problems within a vertically integrated channel in the property investment firms, their distribution channels for products are not necessarily fixed or permanent. Whereas, the distribution channels of brokerage and advertising firms are classified as contractual channels, which sell the contract deal from individual consumer or organisation to end-customers. Although the three type companies have different characteristics for distribution channels, they may have same or similar consumers and may implement similar marketing strategies for improving the market performance of firms. In practice, they shape rivalries and strategies and compete for similar consumers.

Many property firms have been around for decades, and consolidation in the industry has made them large and powerful. In recent years, however, a new force has emerged as an important and powerful player in the property marketing business. Large enterprise brokerage like Hsing Yi, 21 Century and Pacific has experienced in rapid growth and the conventional wisdom in this industry is that they are squeezing profits margins. In addition, property investment companies like Cathay have established themselves almost instantaneously as important players in the industry.

1.6.4. The Rationale for Researching Property Market

Taiwan property marketing managers must understand marketing and how to apply marketing principles. A logical question is “why do Taiwan property firms need marketing?” If Taiwan property firms are to meet the increasing market pressures of competition, consumer demands, and the impact of agencies regulation act of 1997, then every marketing management tool must be explored to reach maximum marketing performance.

To go forward blindly into marketing field, without a full understanding of the subject or how to develop a property marketing plan, would be unwise. Many property firms in Taiwan attempted to develop marketing programmes without the property planning

and significant problems developed as a result. Marketing had a fast acceptance in the property industry once the concept was introduced in Taiwan, but a slow path to success and credibility.

Property marketing in Taiwan is virtually unknown from a formal or organizational perspective in the early 1980's. Competitive pressures and market growth in the Taiwan property market, combined with a few academics that began to research and write in the discipline, led to almost every property investment, brokerage and advertising firms having a formal marketing department today. In Taiwan, market force, brought on primarily by the real estate agency Act of 1997, have led to dramatic changes in the way property firms meet their sales regulation.

The property industry is expanding year-by-year, has become one of the biggest business in the world. The property industry in Taiwan reached US\$ 295.8 billion in 2003, and supported an additional US\$ 1,265 billion in economic activity. The property industry ranked 3rd among the largest 25 Taiwan industries, comprising over 7% of the total Cross Domestic Product(GDP). The expenditure is larger than either the finance services or insurance industries, and larger than the size of the motor vehicle and equipment industry and the auto-repair services industry. Property marketing, which encompasses promotion, advertising, personal selling, web marketing and public relationships, is becoming the most important and dynamic in business administration. The effectiveness of property marketing managers in creating revenues or profits can significantly influence the success or failure of their individual firms.

Little attention has been devoted to an analysis of how these marketing organisations including property investment, advertising and brokerage firms operate and how they make good performance. Therefore, it is critical issue that these property marketing organisation how to allocate limited resource to acquire competitive advantage. In sum, marketing is a function of management in property service industry as in any other industry such as selling and communicating its services and its reputation of a company. In the property marketing service industry, marketing strategy has one key function: finding out what consumers need or want, organising the resources of the

firm to fulfil these needs or wants, while determining suitable policies and programmes so that both buyer gains and the seller profits from the transaction.

Every local property market has its own characteristics, and each product within the market is unique, differing in structure, size and other physical characteristics, as well as location. Accordingly, property marketing varies at the international, national, regional, and city level. Even within the same urban area, the variation is not an exception. The marketing environment and behaviour of this variety of characteristics creates difficulties for research that tries to collect official statistical data.

In Taiwan the property market has also undergone structural changes. New market arrangements are arising, such as buyer's agency, disclosed dual agency, facilitators, and other non-agency brokerage contracts. The market is relying more heavily on multi marketing programmes. These structural changes are likely to alter product-market mix and competitiveness in the market. In this author's view, the marketing function is essential for developing business activity in any organization that seeks to thrive. The thesis follows the objective of most marketing literature is to explore the contributions of marketing function to organisational performance. Generally, marketing organisations have been pointed about the productivity of marketing activities, and the contributions of marketing activities to overall financial performance.

The property marketing industry is considered to have few barriers to entry with numerous companies offering what is perceived to be essentially the same service. In Taiwan it is possible that property firms are able to establish dominant positions in a market and thus a small percentage of market shares. In the property market a business strategy addresses such critical elements as customers, employees and processes. These elements are profoundly impacted by the environments in which the company does business- the environments in which the enterprise interacts with customers, houses its people and supports its processes. Physical environments have an extraordinary role in the marketing function-both in connecting with and serving customers, and also in creating and promoting brands. Although marketing textbooks emphasise the four P's of marketing, much more marketing attention is devoted to the

other marketing communication programmes. Much attention is devoted to the role of service in marketing field, little recognised in marketing is the importance of market-orientation.

The marketing programme has also changed in recent years in Taiwan. One of the biggest changes is the increasing use of electronic media. The internet has put properties online to increase ease of use and availability. Firms have had to react to this phenomenon and many have done so successfully. However, this adaptation is not without cost, where technology related investments represent a significant expenditure. The internet makes property market more efficient because it increases the quality and quantity of information available to buyers and sellers. It allows property market participants to make better informed decisions at lower cost.

The last few decades have witnessed a significant increase in competition for the service marketing dollar, creating a major threat to the survival of some property firms. Due to the increase in competition, many property marketing organizations are convinced that an aggressive marketing plan is the answer to increasing organizational performance. Marketers of property also have introduced a number of rule changes and developed new marketing strategies geared towards increasing the number of customers for their business. Marketing in property service industry presents organizations with a unique set of issues and challenges. Property industry is characterised by high levels of technological and market uncertainty and competitive volatility.

Because the purpose of marketing is increasing the quality of a consumer's life, the primary focus is on the consumer's needs and wants. Marketing efforts designed to create customer satisfaction are the key to satisfy organisational goals. A marketing manager should try to anticipate needs, and determine what goods and services are needed by consumers. In the Taiwanese market the marketing strategy is the overall plan that determines what marketing techniques or strategies will be used to providing availability of the product to the consumer. The marketing plan contains the marketing objectives, identified target markets, financial strategies, and details of the marketing mix strategies.

The property industry is a very pertinent area of business in which to examine marketing performance. Unlike many other forms of work, the relationship between marketing efforts and marketing performance can be direct and measurable. The acquisition of increased revenue for organisations is directly dependent on the actions of marketing efforts. One of the key responsibilities of marketing managers is to complete or “close” business transactions with customers. The completion of a sale, in turn, directly adds revenue to the marketing organisation.

Historically, property firms are not the highest profit margin companies, nor do they tend to be market trend leaders in most developing countries. Thus, one outcome of this study determines the “market focus” of property companies. It should be noted that when the term, market focus, is used, it means that the company has a customer and competition focused strategy or set of strategies.

To meet the challenges posed by the competitive Taiwanese property market, many marketing strategies are consistently being implemented across real estate industries. Most notably, these strategies include: advertising, public relations, sales promotion, web marketing, strategic alliances, and open house, among others. The marketing plan contains the marketing objectives, identified target markets, financial strategies, and details of the marketing mix strategies. Many property marketers today are seeking competitive advantages through cost efficiencies. As most of Taiwanese property firms strive to compete in the most efficient manner possible, effective management of the marketing function is becoming increasingly important. The effectiveness of marketing managers in increasing revenues can significantly influence the success or failure of their individual firm.

Growth and increased competition in property industry has been accompanied by the need for a clearer understanding of property marketing. When shrinking in sales and profitability and increased competition for consumer’s time, money and services, property firms are under increasing pressure to better understand marketing strategies to satisfy consumer’s needs. Marketing is a central activity of modern organisations, usually thought of in business terms and often associated with profits. Organisations

must identify their markets, attract and convert the required resources into appropriate services, and communicate them to consumers.

1.7.Organisation of the Thesis

The study consists of eight chapters. Chapter One discusses the research background, the rationale for the research, main research questions, research objectives, research scope, property market context and the organisation of thesis. The chapter provides an overview of the rationale and importance to study marketing environment, strategy and performance in the property market context.

Chapter Two examines the background literature for the study by reviewing previous conceptual and empirical research in the definition and dimensions of market, marketing environment, marketing strategy and marketing performance. This chapter provides an overview of the specific variables of interest in the research and existing marketing strategy model. Finally, the chapter examines the existing model shortcomings.

Chapter Three contains discussions about the different schools, research theoretical background, research framework, model construct approach, variables selection criteria, measurement issues, research variables definition. The chapter is divided into two parts. The first part illustrates the industrial organization, resource based view and PIMS paradigms that were used in building up an OESP framework and process model for developing research model for examining the relationship between the marketing environment, marketing strategy and marketing performance. In the second part of Chapter Three, this part provides the research hypotheses for the empirical investigation in this study.

Chapter Four reviews research methodology employed in the study. It shifts the focus from the conceptual domain of the research to the operational domain in order to test research hypotheses that were formulated in the previous chapter. The chapter specifies research methodologies of mail survey, unit of analysis, sample framing, key informants selection, questionnaire design, questionnaire pre-test, data collection and

processing. The chapter also provides an overview of statistical analysis methods employed in the study and details the scaling reliability and validity, principal component analysis, pooling regression and multiple regression approach, sample characteristics and response bias relevant to the study.

Chapter Five presents missing value analysis, descriptive statistics, principal component analysis and reliability in the study. The chapter concludes by formulating three final estimated equations regarding the network relationship of marketing environment, strategy and performance.

The empirical results and findings are presented in Chapter Six. The discussion first centres around the statistical results that are related to testing the hypotheses. Then, the discussion of Chapter Seven moves to interpretation of findings and implications.

Finally, a summary and conclusion is presented in Chapter Eight. In the chapter, contribution for knowledge, research limitations and future research directions is also presented.

Chapter 2

Literature Review

2.1. Introduction

The research begins a review of existing literature about the scope of property market boundaries, marketing environment, marketing strategies, marketing performance and relevant marketing strategy models. Accordingly, general concepts of marketing environment, strategy and performance used in the property marketing business are described in the Chapter.

The Chapter consists of four sections: (1) discussion of the definition of property market, (2) a review of marketing environment, strategy and performance dimensions, (3) a summary of existing marketing strategy models, (4) a justification of existing marketing strategy models shortcomings. The purpose of reviewing literatures is to present a summary of relevant literature upon which the conceptual model is based.

2.2. The Definition of the Property Market

Currently, it is recognised that market definition is a basic foundation for the design and modification of marketing strategies, the analysis of competition and the evaluation of performance (Buzzell, 1999). The study begins with Oxford English Dictionary definition of market. The term "market" is defined as a specific place at which exchanges were made (Oxford English Dictionary 1971). A market is simply a group of people who share a similar need. Historically, markets are places where buyers and sellers met. From business perspective, most business people use the term to refer to different ways of grouping customers in a marketplace.

Whatever its geographic scope, defining a market requires the specification of which products and services are to be included. Day, Shocker, and Srivastava (1979) define a product market as follows:

The set of products judged to be substitutes within those usage segments in which similar patterns of benefits are sought and the customers for whom such usage are relevant. (p.10)

This implies that a product market is a group of physical products perceived to be substitutes by a group of customers for specific occasions. However, some literatures define the boundaries of their market from demand side, supply side and socio-cognitive perspectives. An example of demand-side perspective to identify the market boundaries is customer choice set and cross-elasticity demand (Day, Shocker, and Srivastava, 1979; Ratneshwar and Shocker, 1991). Porter (1980) indicates that market boundaries are determined by external environment and customer needs from the strategic group approaches. In the sociocognitive perspectives, Rosa et al (1999) suggests that product markets are defined as constructed knowledge structures that shared among producers and consumers. Therefore, knowledge sharing enables consumers and producers to interact in the market, so product markets become coherent as a result of consumers and producers make sense of each other's behaviours. Combining the demand-side and supply side perspective, Porac and Rosa (1996) demonstrate that competitor perspective is seen as:

“ Similar firms that seek similar resources on the demand side of market, and consider ‘ similarity’ to be an objective property of the market space” (P. 367)

There is increasing consensus that the determination of market boundaries is not based on objective criteria such as traditional supply-side technology and consumer need (Day and Nedungadi, 1994) in the property market, but a result of the background knowledge that firms acquire by interacting other firms (Varadarajan and Jarachandran, 1999). The view of market definition suggests that boundaries of market exist within the minds of competitors (Porac and Rosa, 1996).

From the competitors perspectives, the study will select similar competitors (property investment, brokerage and advertising companies) allocate similar marketing resources on the demand side market to examine the dynamic contingency

relationship in the similar firms. In most previous studies, the survey of marketing environment, strategy and performance is limited across industry or firms or both. The research examines how and what extent the marketing environment and marketing strategies influence the market performance across competitors. In Taiwan these competitors for consumer property market include construction investment companies, brokerage companies and advertising companies.

Defining a market requires the specification of which product or services are to be included (Buzzell, 1999; Bowen and Ford, 2002). In an effort to understand the nature of property marketing services, differences between services and goods characteristics are examined. A clear understanding of the nature of services is helpful for a property marketing service firm to attain strategic management insights. The fact that the service industry has unique feature requires these firms to solve different kinds of managerial problems from those of manufacturing firms (Bowen and Ford, 2002). In fact, the identification of unique features of services has contributed to the establishment of the legitimacy of the service research (Fisk et al, 1993). In an attempt to distinguish between services and goods, Zeithaml et al (1985) have developed such various criteria as intangibility, simultaneity, perishability, heterogeneity, transferability, demand fluctuation, customer participation, decentralised facilities near customers and labour intensity.

Intangibility refers to the characteristics that services cannot be seen, felt, tasted or touched (Berry, 1980; Lovelock, 1983, Zeithaml et al, 1985, Bowen and Ford, 2002) as well as having difficulty in understanding the nature of what is being offered by potential customers (Greenley and Matcham, 1983). This is certainly applicable to property marketing business, as potential customers do not have access to the benefits offered until they actually sign the contract.

Simultaneity means that services are produced and consumed at the same time (Zeithaml et al, 1985). Perishability means that services cannot be saved and inventoried since they are consumed as soon as they are produced (Bessom and Jackson, 1975; Thomas, 1978; Lovelock, 1983). The characteristics are particularly

applicable to property industry. Residential and commercial property are not sold out or let out mean that revenue and interest (opportunity cost) is lost.

Heterogeneity denotes that the performance of services is difficult to standardise and have high potential for variability in quality (Berry, 1980; Lovelock, 1981; Zeithaml et al., 1985). This is particularly prevalent in the property marketing service. The property product in the market could vary in quality and price across time and region. Furthermore, transferability indicates that services have more common features among them than goods.

Demand fluctuation refers that services cannot be stored to meet short-term increases in demand, it can be very difficult for companies to adjust to such a short –run situation (Greenley and Matcham, 1983). The remaining features, consumer participation, decentralised facilities near customers, and labour intensity are related with service delivery process. In addition, Zeithaml et al (1985) classify service businesses by the degree of labour intensity and the degree of interaction and customisation which can be applicable to property marketing business.

Although there are differences between product and service, marketers did not need necessarily use different marketing strategies in the construction investment, brokerage, advertising companies. The only difference is what different industries supply varying degree of service with the physical goods associated with them(Greenley and Matcham,1983; Bowen and Ford, 2002). Markers can be successful by using similar marketing strategy for service industry to those that have been used for manufacturing sector.

Based on the above-mentioned service classification scheme, the property marketing service can be classified into relatively high labour-intensity, high customer contact and low customisation service. Furthermore, marketing is a function of management in property service industry as in any other industry such as selling its services and its reputation of a company. In the property marketing service industry, marketing strategy has one key function: finding out what consumers need or want, organising the resources of the firm to fulfil these needs or wants, while determining suitable

policies and programmes so that both buyer gains and the seller profits from the transaction.

2.3. Marketing Environment Framework

Marketing and strategy researchers have long been interested in explaining differences in firm performance. Utilising the traditional “SWOT” (strengths, weakness, opportunities, and threats) analysis framework, researchers have suggested that firms that achieve superior performance through effective strategies are those that exploit strengths and opportunities, while neutralising threats and overcoming their weakness (Hofer and Schendel, 1985). There are both internal and external components to this environmental framework (Banerjee, 2002). To examine opportunities and threats available to a firm focuses on the external environment, while analysing its strengths and weaknesses focuses on internal environment (Barney, 1991; Porter, 1981; Banerjee et al, 2003).

Marketing environment reflect, factors external to the business unit (opportunities available) and factors internal to the business (ability to exploit opportunities). These dimensions represent key aspects of both the external and internal environment for strategic marketing decisions. It is generally suggested that internal and external environment impact organizational objectives and programmes at the business level rather than the corporate or product/brand levels (Burke, 1984).

2.3.1. Definition and Scope

Any organisations are not closed systems. Every organisation has to face some environmental aspects, which have an influence, or a potential influence, on the organisation and its operation, success, or failure. An organisation should take into account environment factors before developing or implementing marketing strategies. Environment are variables over which a firm or SBU(strategic business unit) has little or no control. However, environment variables did influence marketing strategies and performance. In traditional economic literature environment is an exogenous variables in firm performance, the environmental management perspective in

marketing argues that a company can move beyond fitting strategy to the environment by shaping various elements of the environment (Zeithaml and Zeithaml, 1984; Clark et al, 1994). They posit that a company can adapt a firm's marketing strategies to environmental conditions in such way which will produce a better performance from the environment. Higher levels of fit lead to higher levels of performance (Hofer, 1983; Hambrick, 1983a).

Strategy identifies the function of an organisation by detailing its interactions with the environment, incorporates some areas of agreement found in previous strategy definitions. First, a basic premise of thinking about strategy concerns the inseparability of organisation and environment (Biggadike, 1981; Bracker, 1980; Chaffee, 1985; Hofer and Schendel, 1985; Summer et al., 1990). Second, strategy is related to important environment issues (Bracker, 1980; Chaffee, 1985).

Strategy research has focused largely on factors outside the firm such as market condition and competition (Porter, 1980, 1985). Industrial organisation theory foresees the firm's position in the market and its strategy being based upon five market forces (Porter, 1980). These five market forces are threat of new entrants, rivalry within the industry, buyer power, supplier power and threat of substitution. The above forces are said to determine industry profitability. Porter (1980) postulated that a firm might pursue superior performance by employing the five market forces to select an attractive industry, or to select a strong competitive position within an industry.

In the strategy literature the environment of an organization can be distinguished into two levels: the general and the industry environments (Digman, 1986) or task environment (Castrogiovanni, 2002). The general environmental factors could be divided into the political and regulatory, social, economic and technological environment. This is a categorization of factors outside an organization which will have some kind of influences on the strategy and performance of an organization. However, each of these factors may not be equally dominant and important to every organization. In some situations, an environmental factor may have a more dominant influence than others on the organization. To be more accurate in analysing the

immediate environmental factors that surround an organization, and which could have a more immediate impact on the organization, one may look at the industry environment (Digman, 1986). The industry environment consists of those factors within a specific industry boundary which have an immediate impact on the industry participants.

In the marketing function, the marketing programmes and product market strategies implementation are likely to encounter different level of the environmental pressure. Achrol, Reve, and Stern (1983) draw from Aldrich's (1979) discussion and propose that many environmental factors exist, but that only the important characteristics should be emphasised to enhance research productivity. They also identify environmental uncertainty as the most important environmental descriptor. Specifically, Archrol and Stern (1988) suggest that uncertainty is the key organising concept in organisational behaviour theory.

The environment is multi-dimensional. There are different influence, industry and market characteristics which operate external force to the firms. For example, Hooley and Beracs (1997) lists technological, economic, social, legal and political domains of the environments from top Hungarian companies. Clark et al (1994) described 11 different dimensions such as threat level, dependency and domain consensus. Thus, each of environment domains may be characterised in multiple dimensions, so the study should identify some important environment variables that affect marketing strategies and performance in the property market and firms. For the study, the author will accept Dess and Beard's (1984) suggestion that the concept of munificence - which the environment provides favourable condition for growth and stability is used and the degree of which a given domain in the environment is supportive of the marketing programmes and product market strategy implementation. This implies that multiple dimension of marketing environment will be developed and tested in the empirical study.

Significant theoretical and empirical advances have been made in regard to research focusing on the external analysis aspects of strategy formulation. Much of this research has built on the work of industrial economists (such as Bain, 1951), and

strategy researchers (Porter, 1980, 1985; Buzzell and Gale, 1987), and previous studies has provided us with models which specify environmental conditions that are likely to be characterised by varying levels of opportunity and threats. Explaining the sources of performance differences among firms is a key theoretical and empirical issue in the field of strategic management. The industrial organisation theory argues that industry factors are the primary determinants of firm performance while the resource-based view argues that the firm factors drive competitive advantage (Hawawini et al, 2003).

The use of external-internal environmental framework in the marketing literature was initially proposed by Jaworski(1988), and subsequently developed and applied by a number of authors such as Gardner et al(2000), Cavusgil and Zou(1994) and Koh(1991). Jaworski(1988) describes the environment as the general context or situation surrounding the firm. Jaworski (1988) identifies the external environment (an abstraction of social, political, technological, and economic conditions) and the internal environment (referring to the firm itself) as two relevant constructs in the study of organisations.

In this study an appropriate model is one that facilitates a rigorous analysis of internal organisational strengths and weaknesses, as well as integrates the critical impact of external environmental factors. Specifically, while examining variance in firm performance, there is need to examine (1) the variance attributable to conditions in the industry in which firms operate and the observable/tangible competitive strategies such as product market strategies and the level of marketing programme implementation a firm employs, and (2) the factors external and internal to a firm.

2.3.2. External Environment Framework

The external environment has been defined as those uncontrollable variables that influence the operation of firms within the environment (Hatten et al., 1978). Hambrick (1983c), Hambrick and Lei (1985) and Jain (2000) agree that the external environment has a major impact on strategy formulation, and a firm's selection of its

strategy depends on how well it meets the demands of its external environment. A company should monitor those environmental forces that affect the business.

Porter (1979; 1980) extended the industrial organisation concept of market structure. To understand industry and market structure, Porter (1980) proposed considering five “competitive forces”: (1) the traditional one of barriers to entry ; (2) the rivalry among existing firms(such as market concentration); (3) the bargaining power of suppliers ; (4) the bargaining power of customers (5) the threat of substitute products. Porter (1979,1980) indicates that five forces determine the ultimate long run performance potential of a business. However, Porter (1980) states that the “strongest forces” are important considerations in determining an appropriate strategy, his theories do not specify exactly which strategies are most appropriate under which set of circumstances.

The nature of marketing strategy varies across industries because this is largely a varying in the nature of industries (Porter, 1980). Industry structure has been considered a key determinant of firm’s strategy and performance in a market (Porter, 1980). Therefore, the external environment is composed of the organisation’s factor markets (customers, suppliers, labours), its competitors, the nature of its product/service offering, and broader societal forces (legal, culture, economic, political and social).

Market structure models are derived from microeconomic theories such as perfect competition, monopolistic competition, oligopoly and monopoly. Market structure is determined by three dimensions: the number of firms, the homogeneity of products within the market, and the extent of barriers to entry (Lacy and Simon,1993). According to three dimensions of market structure, traditional property markets have been defined as oligopolies or monopolies with product competition. However, the growing number of property marketing businesses in the property market has made the application oligopoly and monopoly more and more questionable. Unlike the traditional property market in Taiwan, the property marketing service has a larger number of firms and lower barriers to entry that are characteristics of perfect competition. Perfect competition markets are those with many sellers, homogeneous

products, and low barriers to entry. In the perfect competition market, each firm assumes that the market price is independent of its own level of output. At higher prices, the firm sells nothing, and below the market price it faces the entire market demand curve.

2.3.3. Internal Environment Framework

The resource-based view of the firm emphasises a rigorous analysis of internal organisational strengths and weakness and linking these to external analysis of the firm (Barney, 1991). Firm specific factors are intangible and idiosyncratic to a firm are not only hard to perceive by competition, but also difficult to copy. It is non-imitable factors that are the major determinants of the sustainability of competitive advantage. Generally, marketing literature identify the internal into the design of the organisation and its resource profile. Therefore, organisation design has been reflection of strategy. In the property market, a firm focuses on market-focused resource profile.

Barney (1991) perceives Porter's view of strategy to be very extremely, dealing with primarily with the opportunities and threats with which a firm must contend. Barney (1991) contrasts this with an internal (resource) oriented approach to strategy, being somewhat more strength and weakness oriented. Porter's (1980) view is more externally oriented while that of Barney (1991) is more internally oriented. This discussion of the different views of strategy by arguing which strategy approach is best: one that is externally oriented (e.g. industrial organisation theory) or one that is internally oriented (e.g. resource-based theory) (Banerjee, 2002; Banerjee et al, 2003).

Aaker et al (1982) and Porter (1980) indicates that firms' capabilities and constraints influence their choice of marketing strategy and their ability to implement the chosen strategy. Furthermore, a company need to allocate its resource to sustain competitive advantage (Day and Wensley, 1988; Porter, 1985). Therefore, firm characteristics affect marketing strategy and performance. In term of embeddedness theory, any actions initiated by firms and the outcomes of the actions are determined by the environment context (Porac and Rosa, 1996).

In the study internal environment is reflected on market-focused resources availability. Market-focused resources are defined as those resources that can be create and maintain competitive advantage (Hooley et al, 2001) in the property market. Hooley et al (2001) conceptualise market-focused resources into three dimensions: (1) organisational culture, marketing assets and capabilities. Organisation culture, especially in market -orientation has been regarded as an important market-focus resource. When customers have many options in substitute goods or service to satisfy their needs, and have strong opinion about what their preference, a market orientation is more important than a product orientation.

The implementation of the marketing concept has been termed” market orientation.” Efforts as describing this implementation spawned a major research stream over the last decade (Jaworski and Kohli, 1993; Kohli and Jaworski, 1990; Sinkula, 1994; Slater and Narver, 1994; Slater and Narver, 1995; Pelham and Wilson, 1996; Deshpande and Farley, 1998; Han, Kim and Srivastava, 1998; Homburg and Pflesser, 2000; Matsuno and Mentzer, 2000; Harris and Ogbonna, 2001;Conduit and Mavondo, 2001; Hult and Ketchen, 2001; Grewal and Tansuhaj, 2001; Langerak, 2001; Cadogan et al, 2001; Subramanian and Gopalakrishna, 2001; Piercy et al, 2002; Rose and Shoham, 2002; Nobel and Kumar, 2002; Matsuno et al, 2002; Tse et al, 2003; Lui et al, 2003; Camelo-Ordaz et al, 2003; Dobni and Luffman, 2003; Frambach et al, 2003; Leskiewicz and Sandvick, 2003; Deshpande and Farley, 2004; Im and Workman, 2004). This stream of research has resulted in some insightful studies and a better understanding of the role of marketing in an organisation.

The pioneering effort began from Kohli and Jaworski’s (1990) work with conceptual framework including antecedents and consequences of the market orientation construct, however, no scale measurement was developed in their study. Narver and Slater’s (1990) study was the first empirical study that developed a valid measure of market orientation. Other marketing academicians have made contributions on the scale development of market orientation (Matsuno and Mentzer, 2000; Homburg and Pflesser, 2000; Lui et al, 2003; Camelo-Ordaz et al, 2003; Dobni and Luffman, 2003; Frambach et al, 2003; Leskiewicz and Sandvick, 2003; Deshpande and Farley, 2004).

This enhancement in scale development helps support market orientation as a operational concept, which can be implemented by marketing practitioners.

The empirical findings about the relationship between a firm's market orientation and its business performance seem robust across previous studies but with exceptions. Most researchers (Jaworski and Kohli, 1993; Slater and Narver, 1994; Matsuno and Mentzer, 2000; Hult and Ketchen, 2001; Nobel et al, 2002; Sandvik and Sandvik, 2003; Liu et al, 2003; Tse et al, 2003) found strong evidence of a positive association, whereas several researchers (Greenley, 1995a, 1995b; Pelham and Wilson, 1996; Deshpande et al, 1998; Han, Kim and Srivastava, 1998; Grewal and Tansuhaj,2001) found either a weak association or no association between a firm's market orientation and its performance. Facing such mixed results, Jaworski and Kohli(1993), Slater and Narver(1994), Deshpande and Farley(1998), Matsuno and Mentzer(2000), Subramanian and Gopalakrishna(2001), Harris and Ogbonna(2001), Matsuno, Mentzer and Ozsomer(2002), Im and Workman(2004) performed research to explore any moderating variables in the market orientation-performance link. For example, Matsuno and Mentzer(2000) investigated the moderating role of the strategy on the market orientation- business performance relationship and found the relationships are not monotonic across different strategy type.

Deshpande and Webster (1989) define organisational culture as “ the pattern of shared value and beliefs that help individuals understand organisational functioning and thus provide them norms for behaviour in the organisation”. Deshpande and Webster (1989) and Homburg and Pflesser(2000) also suggest that the implementation of the marketing concept, often referred to as having a market-orientation is the relevant criteria for marketing-based examinations of organisational culture. Although Deshpande and Webster (1989) identifies five orientations in the literature (1) market-orientation, (2) product-orientation, (3) sales-orientation, (4) product-orientation, (5) an erratic-orientation, in practice it is generally considered that a firm can follow only one philosophy at a time and then market orientation might be the best business philosophy to implement in the property market. Furthermore, based on the synthesis of the literature, Narver and Slater (1990) define market orientation in the following way: *Market orientation is the organisational culture that most effectively and*

efficiently creates the necessary behaviours for the creation of superior value for buyers and, thus, continuous superior performance for the business (p.21).

Adopting a market orientation is a potential resource for establishing a comparative advantage over the competitors (Hunt and Morgan, 1995). Hunt and Morgan (1995) suggests that market orientation would be regarded as intangible resources because it provided information that enables a firm produce a market offering that has value for some market segment or segments. Accordingly, Hunt and Morgan (1995) view market orientation as a difficult to imitate, unique and valuable resource. A company needs to invest huge resource and funding to obtain and use the information of customers and competitors for implementing market orientation. Generally, a market orientation can produce a comparative advantage if it is rare among competitors (Barney, 1991). If all competitors implement market orientation equally, then a comparative advantage accrues to none.

Resource-based theory supports the view that market orientation as an intangible resource and provides a competitive advantage for the firm (Hunt and Morgan, 1995; Barney, 1991). When managed as a strategic resource in certain business environments, the market orientation provide strong ground for a sustainable competitive advantage by raising barriers to entry and reducing threats of competitors, thereby increase a firm's overall performance (Hult and Ketchen, 2001). A consumer orientation enables an organisation to continuously learn about, and sufficiently understand, present and anticipated needs and of its consumers while a competitor orientation enables an organisation to continuously learn and monitor short-term strengths and weakness and long-term strategies and capabilities of major competitors (Deshpande and Farley, 2004). Therefore, the learning, monitor, understand and survey involve a large resources allocation, so the market-orientation is regarded as intangible resource.

The marketing concept is described by Kohli and Jaworski(1990) as a focus on the market, which includes competitors and customers. In their study of sixty U.S. managers, Kohli and Jaworski(1990) present antecedents, consequences, and moderators of market-orientation. Their research finds that market-orientation have positive effect on the performance. Environmental factors are suggested as

moderating the relationship between market-orientation and performance. They indicate that the larger the uncertainty in the environment, the more important a market-orientation.

A market-orientation is suggested to be a business philosophy composed of two dimensions: (1) customer orientation (2) competitor orientation (Kohli and Jaworski,1990; Kotler,1977; Narver and Slater,1990). In previous studies the operationalisation of market-orientation is largely based on the works of Narver and Slater (1990), Kohli and Jaworski(1990), and Kotler(1977). The marketing concept has been accepted as the optimal marketing management philosophy or the normative philosophy underlying modern marketing thought (Varadarajan and Jayachandran, 1999).

Some significant qualitative research findings is that the importance of committing tangible and intangible resources to strategy is indisputable in the marketing literature (Day, 1983) and in the management literature (Ramanujam, Venkatraman, and Camillus, 1986). However, there is little empirical research into the effect of resource commitment on firm performance and strategy. Resource commitment refers to the adequate level of people, time, and money allocated to the pursuit of the marketing strategy (Day, 1986; Ramanujam, Venkatraman and Camillus, 1986). Particularly, financial, human, physical, planning and other tangible resource may be the most obvious resources, but time also is raised the issue as a resource constraint (Menon et al., 1999).

In the study resource commitment refers to both the human and financial commitment made to support the strategic planning process. Staff members and top management were encouraged to take the time necessary in order for them to be a part of the strategic planning. Funding or financial support might be provided to support the strategic marketing planning and goals. Moreover, King and Cleland(1978) and Steiner(1979) emphasised that planning in an organisation cannot be successful unless adequate resources are committed to that activity. The resources may be physical-staff or office; or they may be intangible-the time spent by the CEO. Planning is not a costless activity and need to allocate resource. Resource commitment refers to the adequate level of people, time, and money allocated to the pursuit of the marketing

strategy (Day, 1986; Ramanujam, Venkatraman, and Camillus, 1986). Allocating appropriate levels of resource commitment will be related positively to firm performance.

A firm's commitment to marketing SBU is offered as a construct which incorporates the extent of planning, financial, human, physical and time resources that the firm allocates to the marketing implementation efforts (Cavusgil and Zou, 1994; Ramanujam, Venkatraman and Camillus, 1986), and the extent of top management commitment to marketing implementation efforts (Day, 1983), and the extent of staff involving in strategic planning for marketing programmes (Ramanujam, Venkatraman and Camillus, 1986).

The importance of property product sales lists to the SBU of property marketing business can not be overlooked because innovative, unique and differentiated product might increase sales, profits and competitive strength for most firms. Consistent with the conceptual and empirical work by Miller (1985a,1986,1988), the study considers two relevant varieties of differentiation: innovative differentiation and marketing differentiation. Innovative differentiation involves the degree to which a business introduces major new products and services and pursues new opportunities in the marketplace (Cooper and Kleinschmidt, 1991). Marketing differentiation, in contrast, concerns attempts to build customer perceptions of superior product quality, design, brand name or service. Rather than product innovation, marketing differentiation involves the degree to which unique and innovative product features are used to create a favourable image.

The product advantage dimensions reflect the extent to which a business attempts to create a unique or innovative product (or set of products) that is perceived by consumers as clearly superior product quality in value. This dimension reflects Miller's marketing differentiation theory. Marketing differentiation concerns to achieve the highest degree of positive customer-perceived product and service differentiation among a group of competitors. Differentiation encompasses a variety of conceptual and empirical frameworks found in the marketing literature. Differentiation also reflects the concept of positioning as presented by Aaker (1989) and Cohen(1986). Here, a product or set of products is positioned (in terms of

attributes, applications, users, etc.) in a favourable manner relative to products as perceived by current and prospective customers.

Product characteristics can be related to the positional competitive advantage (Day and Wensley, 1988) and affects the choice of marketing strategy (Cook, 1983a). In the study product characteristics are regarded as important internal environment factors. Relevant product characteristics that influence marketing strategy and performance include the availability of innovative product and product uniqueness in the property market. In the property market, it is a consensus that the higher the relative innovative product, the higher the performance when every thing is constant. In addition, innovative product refers to two main dimensions: (1) newness to the business (2) newness to the market (Lawton and Parasuraman, 1980; Olson, Walker, and Ruekert, 1995).

However, property products are not homogeneous. Each firm attempts to make consumers think that its product is different, unique or innovative from the products of its competitors to create some degree of financial performance. The primary incentive for sellers to differentiate is the reduced substitutability between products. With reduced substitutability between products, price-cutting does not result in a complete loss of market share. Product differentiation thus gives a firm a certain power within its own market that is called a monopolistically competitive market.

2.4. Marketing Strategy Framework

A key task is conceptualising a theoretical marketing strategy construct relates to specify its boundaries. The following strategy definitions are helpful to delineate the conceptual domain of the marketing strategy construct. Since the phenomenon of marketing strategy is believed to be very complex, the scope of the research has to be narrowed down in order to arrive at a manageable topic. In the thesis the proposed focus is on the content of realised marketing strategy pertaining to “ managers “. However, it seems more logical to study marketing strategy content before the marketing strategy-making process because the latter aims at describing how the former is arrived at. Furthermore, the focus is on realised marketing strategy rather

than intended marketing strategy because the phenomenon of realised strategy occurs in all level of organisations, while some may not have intended strategies.

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2.4.1. Definition and Scope

One of the first business authors to focus on organisation was Andrews (1971). Strategy is defined as “ *the way in which firm, reacting to its environment, develops its principal resources and makes its main efforts in pursuit of its purpose*” (Andrew, 1971, p.29). Furthermore, Andrews (1971,p.28) defined strategy in the economic and business realm as “*...the pattern of major objectives, purposes, or goals and essential policies and plans for achieving those goals, stated in such as to define what business the company is in or is to be in and; the kind of company it is or it to be.*” In a more general context, Andrews' definition suggests that strategy identifies the present function and the intended future function of an organisation.

A summary of several business writers' definitions of strategy is presented in Table 2.1. Table 2.1 suggests following commonalities in strategy definitions:

- (1) Strategy consists of patterns of decisions in an organisation.
- (2) These patterns reveal the function of an organisation by detailing its interactions with the environment.

Table 2.1. The Definition of Strategy

Contributor	Definition
Chandler (1962)	Strategy is the determination of the basic long-term goals of an enterprise and the adoption of courses of action and the allocation of resources necessary to carry out these goals.
Ansoff (1965)	Strategy is the common thread among an organisation's activities and product/markets that defines the essential nature of the business that the organisation is in and plans to be in the future.
Steiner and Miner (1977)	Strategy is the forging of company missions, setting objectives for the organisation in light of external and external forces, formulating specific policies and strategies to achieve objectives, and ensuring their proper implementation so that the basic purposes and objectives of the organisation will be achieved.
Hofer and Schendal (1985)	Strategy is the fundamental pattern of present and planned resource deployments and environmental interactions that indicates how the organisation will achieve its objective.
Quinn (1981)	Strategy is integrated actions in the pursuit of sustainable competitive advantage.
Kerin, Mahajan and Varadarajan (1989)	Strategy is the means of an organisation and the means are used to achieve its objectives.
Summer et al (1990)	Strategy is a firm's set of decisions and objectives regarding the range of businesses the firm chooses to operate and the businesses competitive approaches.
Barney (1991)	Strategy is a pattern of resource allocation that enables firms to maintain on improve their performance".
Varadarajan	and Strategy is the decisions and action which enable a

Jayachandran(1999) business in a firm's business portfolio to achieve and sustain a competition advantage and to improve organisation performance

The commonalities of definitions are a broader version of Bracker's (1980) common characteristics, and each is present in Andrew's (1971) strategy definition. Mintzberg (1978,p.18) expresses that " strategy... is to the organisation what personality is to the individual." Conceptualising strategy as patterns of decisions incorporates the unifying and integrative nature of the concept accepted in both business practice and in the marketing literature (Varadarajan and Jayachandran, 1999). Indeed, Andrews (1980) indicates that the essence of strategy is the unity, coherence, and internal consistency of an organisation's decisions, while Mintzberg (1978) explicitly defines strategy as patterns in a stream of actions.

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Strategy can be defined as the fundamental pattern of the present and planned resource deployments and environmental interactions that indicate how the organisations will achieve its objectives (Hofer and Schendel, 1985). Strategy is regarded as the decision and action which enable a business in a firm's business portfolio to achieve and sustain a competition advantage and to improve organisation performance (Varadarajan and Jayachandran, 1999). Further, Barney (1996) defined strategy as: a pattern of resource allocation that enables firms to maintain on improve their performance"(p.27).

2.4.2. Strategy Process and Content

Chafee (1985) and Fahey and Christensen (1986) indicate that strategy research includes examining both the content and the processes of the strategy by which strategy is developed. Strategy content focuses on " what was decided " and process addresses " how decisions were reached" in organisations (Varadarajan and Jayachandran, 1999). Ideally, a good deal of research examines both fundamentally content and process questions. Quinn (1981) had questioned the nature of the content research, suggesting that it is too webbed to the rational model of organisations and not sensitive enough to political aspects of organisation life. The position taken here, similar to that of Fahey and Christensen (1986), is that both content and process research present viable alternatives.

Strategy content provides the direction and framework for the aligning of organisational resources, systems, processes (Andrews, 1988; Galbraith and Nathanson, 1978) in the strategy literature. The researchers providing support for the general model of strategy used in this study defined strategy in terms of content (Chaffee, 1985; Venkatraman and Ramanujam, 1986) in the strategy literature. In summary, strategy content primarily focuses upon the outcome of strategic decisions(Manu and Sriram, 1996).

However, organisational strategy, conceptualised as patterns of decisions, is a content construct. This study focuses on a derivative construct and is thus confined to strategy content research. The strategy conceptualising links organisational strategy to our historical and everyday understanding of the concept. The basic idea is simple: strategy is concerned with actions of choice. Strategy research includes both which the pattern of decisions are made (the content of strategy) and the processes by which decisions are made(the process of developing strategy), but this research focuses on strategy content.

2.4.3. Realised and Intended Strategies

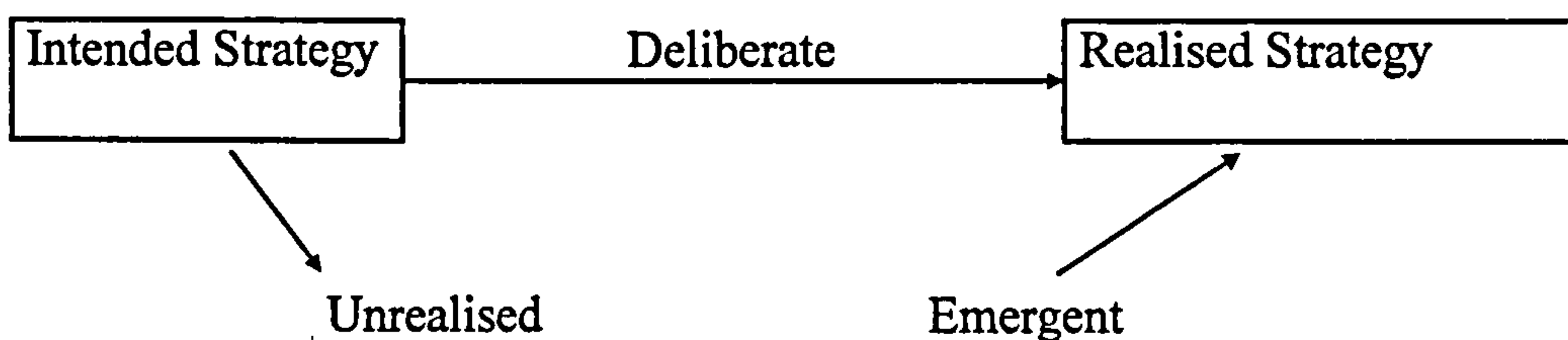
Mintzberg and Waters (1985b) specifically identify three generic types of strategy: (1) intended, (2) unrealised, and (3) realised, which they suggest can be described as either deliberate or emergent. More importantly, the definition presented in Table 2.1.

suggests that an organisation's strategy combining consciously intended patterns of decisions(deliberate strategy) with emerging patterns of decisions which develop in the absence of conscious intention(emergent strategy). The unified strategy concept, termed " realised strategy" (Mintzberg, 1978; Mintzberg and Waters,1985a,1985b), is concerned with both deliberate and emergent patterns of decisions in an organisation.

Mintzberg(1978) pointed out that exclusively deliberate strategy and exclusively emergent strategy is unlikely. For strategy to be truly deliberate, all of an organisation's decision patterns would have to be consciously intended. For example, patterns of decisions that determine an organisation's goals and the means utilised to achieve these goals would be the result of deliberate managerial design. A emergent strategy, on the other hand, would require consistent patterns of decisions without any hint of managerial intent in developing overall patterns.

Mintzberg and Waters (1985b) distinguish between intention and realisation concept. An intended strategy is described as one that is planned. A realised strategy is described as one which occurs or is implemented. They suggest that a realised strategy can be the result of intentions (called deliberate) or simply emerge (called emergent). Mintzberg and Waters' strategy distinctions is summarised in Figure 2-1.

Figure 2.1. Mintzberg and Waters's Strategy Distinctions



The study focuses on realised strategies, regardless whether they are deliberate or emergent. In other words, the interest of the current study lies with what the firm is actually doing, or perceives itself to be doing, rather than what is originally planned or perceives itself to be important. Realised strategies are the concern of the current study.

2.4.4. Strategic Level

Within the strategic management literature, the level of analysis has generally be at the firm level (Barney,1991; Wernerfelt,1984) or industry level (Caves,1980; Porter,1980; Scherer,1980). Furthermore, the strategic scope of a firm is reviewed in previous strategic and marketing research. The distinct aspects of organisational strategy are identified by Ginsberg and Venkatraman(1985) : (1) corporate -level strategy (2) business-level or product/market strategy, and (3) functional-level strategy(4) business unit level strategy.

There are many conceptualisations of strategy, strategic planning and strategic management (Hofer and Schendel, 1985; Chaffee, 1985). A common theme to most of these conceptualisations is a hierarchy of strategic decision-making. Strategic decisions are made at many levels in an organisation from the chief executive officer to the product sales representative (Weitz and Wensley, 1992). Jain (2000) defines the strategic decision-making hierarchy in terms of a three level of taxonomy: corporate, business unit, and product. At each level, strategy focuses on a unique set of decisions concerning goals (ends) and means to achieve desired goals. Like an organisation's ends and means, strategy levels can be considered underlying dimensions of the strategy concept, and derivative constructs can be conceptualised which focus on a specific level.

Corporate -level strategy is described as that which determines the business in which a firm compete and how resources are allocated between the different product/markets (Walker and Ruekert, 1987). At the corporate level, decision-makers choose what business areas in which the firm will operate and coordinate the activities of several strategic business units (Grant, 1995). The overriding policies of each of these individual business units represent the next type of strategic decisions. Functional-level strategy is said to guide the specific departmental units of a firm in day-to-day activities (Ginsberg and Venkatraman, 1985). Therefore, the main issue of corporate strategy is to decide what sets of business a firm should be in. At the business unit level, strategy focuses on how to compete in a chosen industry. Functional strategy is

composed of sets of choices for efficient resource deployment. In general, functional strategy is defined as long-term plans for how marketing, manufacturing, research and development, and accounting to support the desired business unit strategy and to supplement each other.

A key corporate decision task concerns the formation of strategic business units. As firms develop, they often operate in many diverse businesses simultaneously. In general, corporate strategists segment their operations into several strategic business units(SBUs). A SBU is a self-contained business composed of product lines having identifiable independence from other lines in terms of competition, prices and demand (Jain, 2000). The way corporate strategists define the SBU that provides direction for business-level strategists in terms of customers to be served and products to be offered. Business level strategies seek to create competitive advantage by offering one or a number of different product lines. Strategic decisions made in the management of each of these product lines represent the third level of the hierarchy. Here strategic decisions are made in the identification of a number of product-markets to be served through the development of a product or a product for each.

Under the umbrella of a single corporate strategy, each strategic business unit develops a strategy unique to their competitive environment. Day (1984) defines business strategy as “ integrated actions in the pursuit of sustainable competitive advantage.” According to Day (1984), business strategy includes a strategic thrust and supporting operating strategies. The strategic thrust is conceptualised as having two components: an investment strategy and a source of competitive advantage. Accordingly, business strategy deals with the ways in which a single-business firm competes within a particular industry or market (Bowman and Helfat, 2001).

The study involves an investigation at the strategic business unit (SBU) level. An SBU was defined as an organisational unit with a defined business strategy and manager with sales and profit responsibility (Aaker, 1991a). SBU were chosen because they represent organisational units with an independent defined marketing strategy and sales and profitability objectives.

2.4.5. Strategic Change

Researchers addressing strategic change from a content perspective conceptualise strategic change as a realignment of product/market domains and allocations among the domains (Ansoff, 1986), alterations of the pattern of competitive dimensions (Smith and Grimm, 1987), and movement from one generic strategy to another generic strategy, for example, prospector to defender (Golden and Zajac, 2001).

Strategic change is conceptually separate from internal organisational changes that may follow with implementation. Implicit in this orientation and supported by empirical research (Smith and Grimm, 1987; Golden and Zajac, 2001), is that strategic change can be placed within a defined period of time. In a review of empirical studies on strategic change, Smith and Grimm (1987) support investigating strategic change in terms of the way strategy is defined. Moreover, Bergh and Fairbank (2002) recommend that strategists might conceive change as how strategies become different over time and what effects such differences might have for performance. If strategy is defined in terms of content, then change can logically be inferred as either a change in magnitude or pattern of the strategic dimensions. When past studies have tested the performance effects of the absolute and relative intensity of marketing resource deployment, the effect of the consistency of marketing intensity and investment on performance has not been researched adequately.

2.4.6. The Conceptual Domain of Marketing Strategies

Definitions of marketing strategy content construct, based on similar definitions presented in Table 2.2. In this study several reasons can be presented for focusing on business level marketing strategy, a specific content construct in the property market. First, the appropriateness of the business level for strategy research is reflected in the development of the PIMS programme, and in various attempts to develop "generic" categorisation of business level strategy (Buzzell, Gale, and Sultan, 1975; Miles and Snow, 1978; Porter, 1980). Second, most of the contingency variables which might influence marketing strategy (such as market attractiveness and market orientation)

are primarily relevant at the business level (Day, 1984). Third, the conceptual marketing strategy literature generally views marketing strategy, like other functional area strategies, in the context of business level strategy (Cunningham and Robertson, 1983; Jain, 2000; Schendal, 1985). Marketing input to the SBU definition task has advocated a customer-centred approach (Day, 1984). Based on the business unit's choice of marketing investment strategy and source of competitive advantage, marketing strategies for each of the functional areas of the business unit are derived and integrated.

Table 2.2. Marketing Strategy Constructs

Process Construct	Unit of analysis	Content Construct
Strategic Marketing	Corporate Level	Corporate Level Marketing Strategy
Strategic Marketing	Business Level	Business Level Marketing strategy
Strategic Management	Product/Brand Level	Brand Level Marketing Strategy

Business level marketing strategy only partially determines the business unit's goals and means. However, following the suggestion of Schendel(1985) , it is the combination of all functional level strategies(manufacturing, finance, human resource, marketing, etc.) which determine a business's goal and the means utilised to achieve those goals. Thus, in the property market business level marketing strategy focuses on only the marketing-related aspects of a business unit's overall function and is primarily concerned with only certain elements of the environment. Boxer and Wensley(1986) suggest that these elements are the business's customers, channels and competitors.

Some strategy and marketing authors prefer to separate strategies from goals, or means from ends (Ansoff, 1986; Hofer and Schendel, 1985; Mintzberg and Waters, 1985a; Venkatraman, 1989), while others prefer to treat strategy as a comprehensive concept encompassing both goals (ends) and means (Andrews, 1971; Steiner and Miner, 1977). Venkatraman (1989) restricts the conceptual domain of his strategic

orientation of business enterprises construct to focus on only the means adopted to achieve goals. The comprehensive approach to the strategy concept adopted in this chapter provides a broad scope or domain for the construct. This domain may be narrowed or restricted by examining goals and means as distinct aspects or dimensions of the strategy concept.

Though the most widely accepted business strategy research paradigm (Hofer and Schendel, 1985), this study's conceptualisation of strategy encompasses both goals and means and does not separate the two. As Andrews (1988) indicates that patterns in an organisation's goals and the policies designed to achieve those goals are the essence of strategy. In other words, "*what you are doing... is never meaningful unless you can say or imply what you are doing it for*" (Andrews, 1988,p.30).

The basic marketing strategy construct, like the business policy models from which it is adapted, is concerned with both the content of marketing strategy and the process of marketing strategy development(Wind and Robertson,1983). Theory and research in the marketing strategy considers marketing strategy as process or content (Varadarajan and Jayachandran,1999). The process of marketing strategy making refers to how the decision is made and reflects the impact of values, norms, formal and informal systems on the strategic decision. The content of strategy refers to the specifics of the strategy choice or decision in terms of goals, scope, competitive dimensions or actions ((Varadarajan and Jayachandran,1999). Most marketing strategy research now employs a " generic" marketing strategy construct that attempts to reflect both the process of developing marketing strategy (strategy process) and the output of the process (strategy content) at all organisational levels. Wind and Robertson(1983) suggest that this approach results in a multitude of conflicting measures for a poorly defined underlying variables termed " marketing strategy".

Based on the conceptualisation of organisation strategy presented above, a formal definition of the business level marketing strategy construct in the property market can be developed by incorporating the two reasons. The first reason found in practically each marketing strategy is that an organisation's strategy consists of pattern of decisions. Thus, business level marketing strategy refers to integrative patterns of

marketing related decisions. It is not limited to any single decision context, but relates to an overall strategic posture that combines both deliberate and emerging patterns of decisions. A second is that these strategy variables should be important and deals with the interactions between an organisation and its environment. Marketing strategy is therefore linked to both environment elements and performance in a theoretical network.

Interest in marketing strategy has increased tremendously in the past few years and marketing scholars have focused greater attention on the theoretical development of marketing strategy area. This effort has produced a number of important conceptual discussions and empirical studies concerning various aspects of marketing strategy (Anderson and Gerbing, 1982; Burke, 1984; Day and Wensley, 1983, 1988; Kotabe, 1990; Phillips et al, 1983; Varadarajan, 1986; Wind and Robertson, 1983). Wind and Robertson (1983) have suggested that this emerging literature has potential to contribute more to the marketing discipline than has any area of study since the mid-1960s.

Another premise guiding this study is that marketing strategy constructs are multi-dimensional constructs. In other words, a business unit's marketing strategy cannot be examined adequately using any single dimension. This argument is supported in the marketing literature that businesses' strategic marketing decisions vary along many dimensions (Day, 1984; Greenley, 1989a; Jain, 2000; Wind and Robertson, 1983). Neither marketing strategy process nor marketing strategy content can be examined adequately by focusing on any single dimension. This argument is supported by a prevailing view in the business policy and strategy literature indicating that a firm's alignment with its environment and internal environment are characterised by patterns of decisions in multiple areas (Venkatraman, 1989; Venkatraman and Camillus, 1984). Within the marketing literature Day (1984) and Morgan and Strong (2003) also suggest that marketing strategy encompasses many categories or types of decisions.

A review of marketing and business policy and strategy literature indicates that a variety of dimensions characterising marketing strategy at the business unit level of an

organization has been proposed and employed in research settings. While Buzzell, Gale, and Sultan (1975) develop their typology of build, hold, and harvest strategies based on a business unit's allocation of resources to improve relative market share and competitive position, other dimensions have been stressed in different contexts. McDaniel and Kolari(1987) and Mckee, Varadarajan, and Pride(1989), adopting the Miles and Snow(1978) strategy typology, suggest that adaptability(organizational changes in products or markets to maintain environmental alignment) is a key marketing strategy dimension. Further, Walker and Ruekert (1987) propose a hybrid typology which combines the adaptability dimension of Miles and Snow (1978) framework with Porter's(1980) cost leadership and differentiation strategies.

It is important to precisely delineate the domain covered by the marketing strategy issues within a given study. In the study marketing strategy focuses on how a business should deploy marketing resources at its disposal to facilitate the achievement and maintenance of competitive positional advantages in the marketplace (Varadarajan and Yadav, 2002). However, while researchers may tend to view business level marketing strategy in multi-dimensional terms, a commonly accepted list of dimension is presently not available. This lack of consensus is generally due to wide disagreement over the domain of the construct as well as differences in suggested definitions.

A primary concern is to identify strategy dimensions from the marketing and policy literature consistent with the conceptual domain and definition of the marketing strategy construct. Five major reasons based on the earlier conceptualization, guide specification of the construct dimensions. First, each dimension relates to strategy content and not to the process of developing strategy. Second, each dimension reflects an pattern of decisions. Third, each dimension must reflect an important and dynamic pattern of decisions. It also suggests that each variable must be a potential source of a pattern of decisions which cannot be readily imitated by competitors without substantial costs, significant elapsed time, and uncertainty concerning outcome (McGee and Thomas, 1986). Fourth, each dimension must be concerned with crucial marketing-related interactions between a business and its environment. Boxer and Wensley (1986) suggest that these interactions are between a business and

its customers, channels, and competitors. Fifth, marketing strategy in the business level, the focus of the study is conceptualised as a multi-dimension. In the study this marketing strategy content construct is defined as the patterns of marketing-related decisions at the business level in an organisation. Study outputs are sets of measures for key dimensions of this construct and findings concern dynamic relationships among marketing environment, strategy and performance dimensions.

Based on the five requirements presented above, and on a review of various conceptualization and empirical use of dimensions argued to be related to strategic marketing behaviour, two key dimensions including product-market strategy and marketing programme decisions are identified in the real estate and marketing literatures briefly discussed below. Although one cannot convincingly argue that these two dimensions cover all the characteristics of marketing strategy, it is argued that they represent crucial areas and serve as an adequate starting point for this research.

Based on the above statement, since the degree of product-market strategies and marketing programmes decision reflects the course of action pursued by the property firms in response to their business environment and refers to specific pattern of resource allocation by the property firms in its quest for improving market performance. Furthermore, marketing strategy refers to how a business chooses to deploy marketing resources at its disposal to achieve competitive positional advantages in the marketplace (Ailawadi et al, 2001;Varadrajana and Yadav, 2002; Slotegraff et al, 2003). The distinct of marketing strategy construct is the selection of some target markets, the choice of a competitive position and the development of effective marketing mix to reach and serve the chosen customers. In general, product market strategy is regarded as a objective-orientation marketing strategy while marketing programme decision is regarded as an action orientation strategy in the study.

2.4.7. Marketing Programme Components

In some marketing literature, marketing strategy is considered to have three components -programme, process and planning. Marketing programme refers to the marketing mix elements of product, price, place, promotion and distribution (Jain, 1989). Marketing process refers to the formulation, implementation and evaluation procedures for marketing planning, budgeting, research and sales force management (Piercy, 1988; Sashittal and Jassawalla, 2001; Dobin and Luffman, 2000; Nobel and Nokwa, 1999). Similarly, planning refers to make plans for marketing strategy content and formulation process in the marketing activities in a organisation for sustaining competitive advantage(Claycomb et al, 2000; Phillips et al, 2000).

The term “ programme” refers to various aspects of the marketing mix. In the international marketing literature, the term” programme” comprises various facets of marketing mix, which can be classified as product design, product positioning, brand name, packaging, retail price, basic advertising message, creative expression, sales promotion, media allocation, sales force management, role of middleman, type of retail outlets, and consumer service (Jain, 1989; Quelch and Hoff, 1986; Wind and Douglas, 1986). From strategic planning perspective, marketing programme decisions are regarded as action-orientation strategies.

Marketing strategy implementation has been defined to mean the process that turns marketing plans into action and ensures that such as action are executed in a manner that accomplishes the plan’s stated objectives (Bonoma, 1985; Kotler,1995). On the other words, marketing strategies are the means by a firm responds to the business environment to meet the objective of a firm. Thus, the study considers marketing programmes implementation and product market strategies adoption as a strategy issue. A strategy is only as good as its implementation. Marketing programmes developed by a firm or SBU must be implemented to generate results.

Marketing managers are principally concerned with the allocation of scare marketing resources such as sales force, advertising and promotion, for the purpose of improving the market and profit performance of their products or brands (Dekimpe and Hanssens, 1999). A successful firm would have a marketing programme that approximates an optimal strategy. Although then rising costs of these marketing

programmes in the property market for sustaining competitive advantage, little research effort has been devoted to measuring and explaining the relative and absolute performance of various marketing mix elements in the competitive environment.

The marketing programme decision studies might be entirely new concept, but the issue has been discussed earlier in the real estate literature. For example, Richins et al (1987) examined marketing programme and strategy concepts as they apply to real estate brokerage firms, reported an empirical investigation of marketing strategies of firms in a local market, determined whether strategic orientation exists in the real estate brokerage firms and their effectiveness of marketing mix elements. The research supports the existence of three distinct strategic groups of marketing strategies and the research results show significant differences in the marketing mix efforts and market share among the three strategic groups.

Richins et al's (1991) literature has a few explanatory limitations from employing continuous data. Some continuous data might be difficult to collect and access in some marketing programme studies. The research collect continuous data such as service level (employees/sales), square inches of display ads, column inches of classified ads, number of open houses, geographic dispersion(straight-line distance form agency office to customers). Therefore, the study cannot provide a useful foundation for follow-up studies because data available and accessible issues are critical.

In the property market marketing programme consists of advertising, public relations, relative price, relative quality, sales force training, the number of distribution, sales programme, strategic alliance, web advertising, open house, the amount of sales force training, sales force size, sales forces expenses and discount pricing elements. Although one cannot convincingly argue that these dimension cover all the characteristics of marketing strategy in the property market, it is argued that they represent crucial areas and serve as an adequate starting point for this research. The following paragraphs will discuss the context of marketing programmes in the property marketing business. The review does not include literature on the marketing strategy of the property marketing business because past research on property

marketing strategy studies are scanty. However, general aspects of marketing programme used in the property market are described in the section.

Advertising

In the marketing literature advertising is regarded as an important marketing communication strategy. Advertising is particularly appropriate for creating awareness and interest, and for reaching a broad market (Slater and Olson, 2001). Advertising strategies are especially sensitive to competitive considerations because of the direct and negative impact that a competitor's advertising can have on a company's market share and sales (Erickson,1995) and simultaneously informs and persuades consumers(Banerjee and Bandyopadhyay,2003). In general, a firm wants to maximise its profits in its use of advertising(Zhou et al, 2003).

Frazer, Sheehan and Patti(2002) indicates that there are least three alternative views of advertising strategy in the literature. The first uses the advertising strategy for encompassing many different types of decisions in the advertising planning process (Shimp, 2000). A second view of advertising strategy, called creative or message strategy, is that it is more related to the defining or constraining factors of the message itself in the strategic planning process (Jewler and Drewniany,2001). A third alternative view is that strategy is about very specific messages choices by using slogans, colour, font size, graphic design, scene transitions, music and sound effects and celebrity endorsers(Moffitt,1999). Since the research interest here was examining the network effect of marketing environment, strategy and performance, the third view, focusing on marketing communication expenditure, was chosen.

Public Relations

Gruning(1993) wrote that public relation is the management of communication between an organisation and its publics. In other words, public relation is an organisational effort to establish and maintain mutual understanding between organisations and the public (such as current and potential customers). Gruning and Gruning(1998) also recommends that public relation involves in using communication

techniques as its principal tools to attract general public. Cutlip et al (1985) suggested that public relation is a management function of marketing communication. In the property market, the responsibility of public relation managers and marketing managers is to use mass media programme for communicating with current and potential customers. The purpose of implementing media plans is to promote company image and attract potential customers.

Relative Price and Quality

Relative Product quality is a market niche strategy employed by smaller business against competitors (Phillips, Chang and Buzzell,1983). In general, higher quality product enables the business to charge premium prices, which generates superior sales margins but also loses large scale market penetration(Porter,1980). Marketing literature suggests that price has been viewed as one of the most common used signals of perceived product quality. Furthermore, higher advertising and promotion costs might be necessary to convey a higher quality and price position to customers(Farris and Reibstein,1979). PIMS collected data on the quality of each business unit's products and services, relative to those of its competitors. Relative quality measure is a judgmental assessment by manager or planning staff (Buzzell, 2004). The measure has been criticised because it is subjective.

“Positioning” refers to design the product to fit a given place in the consumer's mind (Kotler, 1995). From the property marketing perspective, the purpose of implementing product positioning is to attract strong residents such as high or medium income group or specific consumer group. In the property market product positioning was classified as positioning by price/quality including high price/quality, medium price/quality and low price/quality product. Particularly, among high quality apartment developers and sellers, resident mix was strongly stressed. However, academic research is lacking in this area. There is no such thing as a theory of positioning in academic literature. But even in the absence if such a theory, practitioners implemented the strategy.

Pricing Strategy

According to Graham (1989), an imbalance in the marketing literature exists in that a disproportionate amount of research has focused on the buyers' perceptions and reactions to price. Consumer behaviourists have addressed at length such issues as price awareness, price as a proxy to quality, asymmetry of price information, price elasticity within markets, and price information processing among consumers. Comprehensive reviews of this literature are provided by Nagle (1987) among others. Many researchers indicate that, contrary to the assumptions of economists, buyers are not perfectly rational and do not have perfect information when purchasing products.

The average consumer takes into consideration a wide variety of factors in every purchased decision, and over the decades researchers have focused extensively on these decision making processes, as well as the emotional and psychological variables that are involved in those decisions, not only in the marketing literature, but also in psychological literature. Of all the marketing decision variables it is perhaps pricing variable which has been the most ignored by researchers (Graham, 1989). The effectiveness of a price cut in increasing demand is critically related to competitors' reaction to the price change (Sudhir, 2001).

Based on the above review, pricing was identified as a neglected area of existing marketing strategy models. Marketing commission rates do not vary across firms. Most of sales transaction involved commission rate of 5%, the second most prevalent was 4% in Taiwan. While little variance exists in the commission pricing structure, variance is found between listed (asking) price and actual selling price. The term is defined as price dealing (degree of discount pricing) was used as the principal measure of pricing strategy followed by Richins et al's (1987) suggestion.

Sales Promotion Programme

Promotion are often defined as marketing communications activities which do not include advertising, public relations or "special offers" (Peattie and Peattie, 1994; Peattie, Peattie and Emafo, 1997). The growth of sales promotion in the property market because some firms need to shorten planning time horizons (Peattie and Peattie, 1994) and have immediate sales effect (Foekens, Leeflang and Wittink, 1999).

Because price-based promotions are difficult and possibly dangerous to use for property marketing business, coupons are the dominant form of sales promotion. Promotions are more important in changing the timing rather than the level of purchasing because customers tend to buy earlier (Doyle and Saunders, 1985).

The term "sales promotion" has been used to represent at least three different concepts: (1) the entire marketing mix, (2) marketing communications (Anderson, 1982), (3) a catch-all for all communication instruments that do not fit in the advertising, personal selling or public relation subcategories (Van Waterschoot and Van den Bulte, 1992). The key issue of researching sales promotion is the lack of a generally accepted positive definition, which makes it difficult to develop a research framework in the sales promotion. Sales promotion is an integral part of the marketing mix programme for many consumer products through the world (Huff and Alden, 1998). Marketing managers may use price-oriented promotion programmes such as coupons, rebates, and price discounts or use non-price promotion programmes including sweepstakes, frequent user clubs, and premiums add excitement and value to increase market share and sales (Aaker, 1991b).

Sales promotion is an integral part of the marketing mix programme for many consumer products through the world (Huff and Alden, 1998). Marketing managers may use price-oriented promotion programmes such as coupons, rebates, and price discounts or use non-price promotion programmes including sweepstakes, frequent user clubs, and premiums add excitement and value to increase market share and sales (Aaker, 1991b). Generally, sales promotion programmes provide utilitarian benefits such as monetary savings, added value, increased quality, and convenience, as well as hedonic benefits such as entertainment, exploration, and self-expression to consumers (Chandon et al, 1997) in the property market.

Web /Internet Marketing

The internet is quickly becoming the tool which customers first look to products and services. As Frazier (1999) observed that the use of multiple channels of distribution is now becoming the rule rather than the exception. The property firm is no exception. The Web also appears to be an attractive medium or channel to support commercial activities and electronic commerce (Wei et al, 2001; Menon and Soman, 2002). According to Hoffman and Novak (1996), the Web has “ the ability to facilitate global sharing of information and resources, and has the potential to provide an efficient channel for advertising, marketing, and even direct distribution of certain goods and information services”. When firms add Internet channels to their existing channels, they hope to increase their performance.

The advantage of using internet marketing might increase firm's penetration levels, decrease their distribution costs, and increase consumer price sensitivity (Geyskens, Gielens and Dekimpe, 2002). It is becoming increasingly more important that property firms remain competitive by offering and listing their properties on the internet or WWW. Recent literature has suggested that information technologies are creating marketing paradigm (McKenna, 1991, 1995; Hoffman and Novak, 1996, 2000). The internet has the capability to support this business more completely than traditional communication media by facilitating communication between and customers (Hoffman and Novak, 1996).

Web-based marketing entails using internet to provide information and to communicate transactions(Sharma and Sheth, 2004). The research specifically examines the potential value of implementing an Internet strategy into an organisational marketing programme and how the development of the strategy might create competitive advantage and improve financial performance for the organisation. Recent technological innovations have resulted in new on-line applications that allow homebuyers to take virtual tours of lists properties, to obtain neighbourhood and quality of life data, to determine affordable price ranges and comparison shop for loans. In the property market the growing use of internet marketing might reduce information and transaction costs, speed transactions, and ultimately lower commissions by reducing the demand for sales force.

This is no broadly definition of internet/web marketing. Lipoff and Jeus(1996,p.45) provided a good starting points when they defined electronic commerce as “ business that is conducted electronically by internet or private network in combination with some amount of human interaction and paper-based process.” This definition implies that electronic commerce is not restricted to transactions that are entirely conducted electronically, but can also involve some marketing communication. In the current trend the internet continues to grow with more consumers looking for property lists in the property market. The growth of the internet has provided more opportunities to communication with consumers. In sum, internet marketing is now another medium that has to fit into integrated marketing compaign.

The Number of Distribution Branches

The most common distribution decision is whether to use a selective or an intensive distribution (Slater and Olson, 2001). In the property served market the branches should be managed as the revenue-producing centre rather than the high cost transaction. Similar to banking services, the service delivery system was assessed by the five criteria including the customer convenience, the precision, the efficient cost structure, the adaptability and the market penetration (Harker and Hunter,1995). In the property market distribution-scope strategy is reflected in the branch intensity programme. The number of branch variable was critical relating to whether a firm expand new branches for taking advantage of marketing opportunities or whether marketing efforts concentrated on well-understand existing branch.

Strategic Alliances

Establishing strategic alliances is a critical strategy for most contemporary firms (Kale, Dyer and Singh, 2002). There are many types of alliances including jointed ventures, equity stakes, non-equity funding, licensing agreements, marketing agreement, and research development agreements (Contractor and Lorange,1988). Different alliance types have been argued to vary in terms of many factors. Strategic

alliances can also be classified according to the function that they perform. The most common types of alliances include the following:

1. A joint product venture is a separate entity created by two or more firms to produce a product,
2. A joint research venture is a separate entity created by two or more firms to conduct a research,
3. A technology alliance involves the sharing of technology,
4. A joint marketing agreement is an co-operative agreement to jointly promote or sell partners' products, and
5. A distribution agreement occurs when firms share distribution systems (co-alliance marketing).

In defining strategic alliances, it is helpful to distinguish between alliances and mergers. Mergers units separate businesses into single decision-making entities; on the other hand, while alliances combine some of the resources of different firms, the firms, themselves, remain separate entities with the ability to make decisions independently. Mergers are designed to be permanent, while alliances are typically of limited duration. When firms establish alliances, their primary objective is to enhance their competitiveness by combining their resources with the resources of other firms. Marketing alliances are flourishing in the property and other service industry, but there is no one single theoretical framework which is able to provide a comprehensive and sufficient explanation to the concept (Vadarajan and Jayachandra, 1999).

A strategic alliance is a relationship between two or more firms that involves the sharing of resources: capital, technology, experience, distribution networks, etc. Strategic alliance involves co-operative activities that go beyond ordinary arms-length transactions, but fall short of mergers. A joint venture is a separate entity owned by two or more firms (Chen and Chen, 2002). As such, joint ventures make up a subset of strategic alliances. Thus, strategic alliances are becoming an important component

of corporations' marketing strategy. Like mergers, strategic alliances can be classified according to the operational relationship that exists among their partners.

In this study the research scope is delimited to the marketing agreement. Strategic alliances became ubiquitous in the 1990s. In contrast to arguments that strategic alliances are best used on a temporary basis and for non-core activities (Porter, 1990), recent thinking suggests that strategic alliances can be a source of competitive advantage (Vadarajan and Jayachandran, 1999; Ireland, Hitt and Vaidyanath, 2002). By bringing together complementary resources owned by different firms, it is likely to create competitive advantage. This suggests a network-centric view from which to explain performance. There has been comparably less research in the area. Recent research suggests that firms build larger alliance networks (Baum and Calabrese, 2000) enjoy higher performance. Park, Mezias and Song (2004) found that marketing alliances generated significantly greater firm value than technology alliances.

The research focuses on examining marketing agreement programme in the scope of strategic alliances including co-marketing, horizontal advertising and vertical advertising alliance. A co-marketing alliance is a lateral relationship among firms (or individuals) intends to amplify or build user awareness of benefits that they offer (Bucklin and Sengupta, 1993; Venkatesh et al,2000). The advantage of co-marketing is to attract considerable consumer attention, generate high expectations and improve marketing performance. Such marketing alliances also help marketers expand into new market by tapping their partner's customer base (Sherman, 1992). Co-marketing alliance is a type of advertising alliance operated by a group of competitors.

Strategic alliance is a manifestation of inter-organisational cooperative strategies (Achrol, 1991 and Varadarajan and Cunningham, 1995). Strategic alliance is a form of interorganisational cooperation entailing the pooling of skills and resources by the alliance partners, to achieve one or more common goals (Varadarajan and Jayachandran, 1999). The interorganisational cooperation is classified as horizontal and vertical alliance. The horizontal alliances are classified as interorganizational cooperative relationships can exist either between two firms whose primary economic

commitment is to the same value chain activities (Varadarajan and Jayachandran, 1999). A horizontal alliance is a co-operative relationship among firms competing at the same supply level in the same industry. Whereas, vertical alliance is defined that between two firms whose primary economic commitments are to adjacent stages of the value chain.(with its part suppliers). A vertical alliance is a partnership among firms along different levels of the supply chain of the same industry.

In the property market, marketing and sales agreements dominate the strategic alliances landscape, and these are especially critical for several businesses. Property industries have high levels of strategic alliance in the 21 century. Environmental changes made it increasingly difficult for a single firm to remain competitive advantage. Firms entered multiple alliances to gain market share and avoid technological lockout. Marketing alliances allowed firms to expand shares across geographical and industrial boundaries.

Sales Force Management

In the marketing literature strategic planning has critical issues to implement an organisation training programme (sales force training)(Cavusgil and Zou, 1994), reward its employees (sales force compensation expenses)(Coughlan and Subrata, 1989; Sarin and Mahajan, 2001) and allocate sales force size (Fogg and Rokus, 1973; Lilien and Weinstein, 1984). Strategic planning requires that sales force size allocation and compensation systems hold firm performance as the ultimate criteria of success (Coughlan and Subrata, 1989). Sales force sizing and compensation systems must evolve over time and become more direct participants in the strategic planning process(Laforge et al,1989). Sales force size and effort are closely related aspects of property marketing business.

Theoreticians from the marketing literature suggest that compensation has the greatest potential for facilitating a firm's strategic goal of improved productivity and greater financial performance (Sarin and Mahajan, 2001). Coughlan and Subrata(1989) recommended that compensation systems hold a pre-eminent position with

organisational decision makers because its direct impact on financial statements and performance. Compared to compensation policies, mathematical estimates of the value of other marketing programmes are often regarded as untrustworthy by many management leaders (Zoltners and Sinha, 1983). An essential task of strategy formulation is for firms to allocate resource, including sales force resources, in such a manner that the organisation develops and maintains a differential advantage over other firms (Porter, 1980). Both sales force compensation and size allocation exist suggesting that an emphasis on these practices will have a greater impact on firm performance in the property market.

Few marketing literature examined the sales force training issues. The training strategy literature suggests that an adequate human resource skill base is the mandatory starting point for all organisations when pursuing an business strategy (Hollingshead and Carnevale, 1990; Osterman, 1995). In the property market strategic human resource development involves matching the organisation's current training efforts to strategic needs of the future. Sales force management promotes business interests for it enhances a training systems connection to an organisation's long term objectives (Buller, Napier and McEvory, 1991). Among specific practices mentioned as contributing to improved firm performance are compensation and extensive training (Osterman, 1994; Huselid, 1995). A strategy perspective suggests that similar organisations may follow different strategic plans whose overall effectiveness will depend on the overall objectives and particular environment circumstances of the organisation (Osterman, 1994).

The sales force with its close customer contact, is in a position to take a lead role in the collection of market information and the creation of valuable customer relationships (Pullig et al, 2002). Furthermore, although their importance is increasingly decreased, sales force still are expected to take a critical role in delivering property services to their customers because customers still choose the nearest branches and contact salespersons or agencies to search for property. Together challenges from both within-and external-industry competitors have forced property firms to reassess the importance of the sales force intensity. They have represented

strategic integration between operations and marketing choices as delivering the right products to the right markets at the right time at the right price.

Open house

An open house is defined in the Handbook of Real Estate Terms as :

“ A marketing technique commonly used by real estate brokers to show residential property by having it available during particular hours ...During the open house, the broker or ...representative at the house ... is available to show the property and answer...inquiries...” (Tosh, 1992, P.350).

Although common to residential property, open house is also utilised on some commercial properties. Open house has growth over the past five years since open houses are perceived an effective way of marketing element. Cyr et al (1996) suggests that “open house appeal to our natural curiosity”. Open house is considered a mean of getting people who may, and those who may not, have considered buying the type of property on offer, through another property. However, not all properties is suitable for marketing by open house (Wright,1999). The implementing open house may not include properties where security may be problematic, or where uniqueness or high value may attract large numbers of lookers.

2.4.8. Product-Market Strategy

In the property market another important marketing strategy dimension is product-market strategy which might include target market segmentation, coverage of target market and product sales breadth. Although one cannot convincingly argue that these dimension cover all the characteristics of marketing strategy in the property market, it is argued that they represent crucial areas and serve as an adequate starting point for this research. The following paragraphs will discuss the context of product-market strategies in the property marketing business.

Target Market Segmentation

Consumer heterogeneity is fundamental to the marketing concept, involving segmentation, targeting, and positioning (Kamakura, Kim and Lee, 1996). Market segmentation, as a management philosophy, is the progeny of microeconomic theory and the marketing concept (Day, Shocker and Srivastava, 1979; Webster, 1991). The recognition of heterogeneity in the tastes and preferences of different buyers led to the development of the theory that adaptation of the product to the demand side of the market would create competitive advantage (Dickson and Ginter, 1987). Through choice of target segments, competition may be minimised (Beik and Buzby, 1973). In an industrial context, segmentation identifies the scope of the business in terms of products, technology, and the respective competition in the segment.

Market targeting implies major commitments to satisfying the needs of particular customer groups through the development of specific capabilities (Slater and Olson, 2001). Although academics stress the need to identify the most suitable and statistically valid segmentation schemes, the priority of the practitioner is to identify segments on which an effective marketing programme can be developed (Dibb and Simkin, 1994). Clear separation of individual markets rarely exists, and as competitive pressures increase, strategies for effective market segmentation of products for sale in property markets remain elusive. Property marketers have reluctance to develop and implement niche marketing strategies for several reasons. There is high possibility to concentrate effort on a few market segments because of the fear of losing sales volume, and a tendency to focus on sales volume rather than profitability. Also, academic literature saw a tendency to place too much emphasis on segmentation techniques rather than on the development of strategies for competing successfully in those segments.

Coverage of Target Market Segmentation

Market segmentation is susceptible to a simple definition- heterogeneity in demand functions exists so that market demand can be disaggregated into segments with distinct demand functions (Dickson and Ginter, 1987). Or, more simply, based on the geographic scope it is the process of dividing the total market into a number, or homogeneous sub-markets, termed market segments (Danneels, 1995). In the real

estate industry context, segmentation identifies the scope of the business in terms of products, technology, and the respective competition in the segment. The identified market segments serve as a mirror for appraising the supplying firm's capabilities or strengths and weaknesses in meeting the segments' present and future requirements (Hlavacek and Reddy, 1986). Therefore, market segmentation is the process by which potential customers are identified by common use, interest, geographic location and perception. Coverage of target market was measured by those property firms that the firm looked to broad geographic area for sustaining competitive advantage or whether it concentrated on well-understand geographic market.

Product Sales breadth

Once a firm decides to go beyond offering a single product in the property market, it has first to decide how to extend its product line. Specially, there are two types of product line extensions: horizontal and vertical. A horizontal extension is the addition of new variety of the product (new flavour, colour etc) at the same level of quality in the property market. Horizontal extension has the same price and quality but vary in other attributes. A vertical product extension takes place when the company adds a product variety of different quality to the current product line. Vertical extensions typically are aimed at extracting as much as consumer surplus as possible by price discriminating according to consumer preference for quality. There has been extensive theoretical and empirical work documenting the effects of vertical differentiation of products (Moorthy,1984; Horsky and Nelson,1992; Randall and Ulrich,1998). In the marketing literature, horizontal extensions are not so well investigated because of their relative complexity. While it is clear that everybody would prefer a higher quality property to a lower quality one, it is not clear what the preference ranking among apartment or high-rise residential property. The research will try to shed some light on the decisions pertaining to vertically differentiated product lines.

Another decision a manager faces is what size of assortment to offer. Marketing more variety is costly. On the other hand, with a larger assortment the likelihood of matching the preferences of heterogeneous consumers is higher in the property

market, and hence potential sales increases. If consumers desire more variety, then offering a broader product line may decrease their need to switch to other brands (Klemperer,1995) and other firms. Recently, studies have pointed out that there are downsides to small assortments, because narrowing the product line may make it more difficult for consumers to make a selection and thus result in no purchase(Iyengar and Lepper,2000). Product variety is beneficial in the property market, because it increases the likelihood of a match between the ideal points of an individual consumer and the property offerings. Another reason for consumers' preference for larger assortments is that the choice set seems more representative of the entire set of possible options(Greenleaf and Lehmann,1995).

Given a certain product-line length, the marketing management has to determine the composition of the product line. The question here is what degree of differentiation to aim for. For example, a firm can allocate broader products compared to major competitors by focusing on narrow segment of the market or by targeting several segments with narrower products (Slater and Olson, 2001; Homburg et al, 2002). In the real estate literature, Sriram and Anikeeff (1991) tests the Miles and Snow typology model to examine the different product market strategies among development companies (property investment companies) to explain the difference of performance. The research classifies firms into four strategy types-defender (sell a narrow range of products in a narrowly defined market), analyser type A (sell a narrow range of products to a broad market), analyser type B (sell a broad range of products to a narrow market) and prospector (sell a broad range of products to a broad range of products to a broad spectrum of markets). The research concludes that there is no significant difference in average performance among the product-market strategy categories. However, recent studies have not advanced towards developing and testing product -market strategies.

Market segmentation in the real estate practice, managers made efforts to focus on satisfying every consumer need by targeting smaller segments of the population. This resulted in an overwhelming product variety in the market place. Because of the expectations of increasing sales and profits from product sales breadth, marketing managers are often reluctant to cut their product lines. However, the opinions in the

academic community about the risks and benefits of broad product sales lines are required empirical evidence. For improving marketing performance in the property market, it is a debatable issue whether or not the firm market new product or market the existing product. The product extension includes product and service extension. The product type includes office, retail, industrial, hotel and residential. Although most property firms market residential to consumers, service extension can attract more potential consumers to make sales and improve firm's performance. For example, warrant and mortgage assistance programme can attract potential consumers for enquiry. The key issue is Whether or not it would consider product expansion in the face uncertain profit or performance or whether or not it concentrated on well-understand products for maintaining competitive advantage.

2.5. Marketing Performance

Performance is usually the final dependent variable in the strategic management literature. Since "performance improvement is at the heart of strategic management", the ultimate aim of marketing or strategic management models is to explain organisation performance (Venkatraman and Ramanujam, 1986). The assessment of business performance or organisational performance has been the subject of extensive empirical investigation for some time now and review of the literature revealed that the results of these investigations are not conclusive. Although the importance of the performance concept is widely recognised through its extensive use as a dependent variable in empirical models, its treatment in research settings is perhaps one of the important issues research face (Venkatraman and Ramanujam, 1986).

2.5.1. The Definition and Scope

There is disagreement as to what criteria and indicators of performance should be employed and what characteristics of organisations or other variables are relevant to the study of performance (Dess and Robinson, 1984). A difficulty in empirical research is the unresolved issue of how to measure business performance, with a continuing debate over the applicability and reliability of various organisations and

social measures (Gray and Matear, 1998). Future research that incorporates organisational performance should address the selection of a conceptual framework from which to define organisation performance and the identification of accurate, available measures that operationalise it (Dess and Robinson, 1984).

There is no uniform definition of performance in the literature. The scope of business performance measurement in strategy research is examined by Venkatraman and Ramanjam (1986). Venkatraman and Ramanjam (1986) identify organisational performance as a broad construct which includes operational performance (market share), financial performance (ROA, ROI) and other firm performance indicators. Performance can be studied at two categories: (1) financial performance with economic objective, (2) non-financial performance with strategic objective. Financial performance includes sales growth, revenue growth and profitability, whereas non-financial performance includes market share, production innovation and technological efficiency, organisation learning, and awareness of the product and firm (Venkatraman and Ramanujam, 1986). However, Venkatraman and Ramanujam (1986) also indicates that most strategies focus on business performance at the financial and non-financial level performance because of the difficulty in explaining and demonstrating organisational effectiveness. Venkatraman and Ramanjam (1986) suggest that whenever possible measures of both financial performance and operational performance should be used as indicators of firm performance.

2.5.2 Performance Domains: Efficiency, Adaptability, Effectiveness and Satisfaction

Ruekert, Walker, and Roering (1985) suggest three possible performance domains (regardless of whether perceptual or objective indicators): (1) effectiveness, (2) efficiency, and (3) adaptiveness. Effectiveness is described as the degree to which organisational goals are met. Efficiency is defined as the relationship between a firm's outputs and inputs, possibly indicated by profitability. Adaptiveness is referred to reflect the ability of the firm to change in order to meet opportunities and threats (Ruekert, Walker, and Roering, 1985; Clark, 2000).

Efficiency represents the comparison of outputs (performance) from marketing to inputs (such as marketing expenditure) of marketing with the goal of maximising the inputs relative to the outputs (Bonoma and Clark, 1988; Morgan, Clark and Gooner, 2002; Sheth and Sisodia, 2002). Efficiency is called marketing productivity, this measurement examines how best to allocate marketing activities and assets to produce the best performance. Similarly, efficiency is defined as “the outcome of a business programmes in relation to the resources employed (Walker and Ruekert, 1987, p.19). Finally, efficiency perspective suggests that marketing resources may have negative association with performance because fewer resources should be better (Bonoma and Clark, 1988).

Effectiveness is increasingly employed to measure marketing performance in some marketing and strategy literature. The effectiveness notion posits that any measure of performance should incorporate the objectives of the decision makers (Bonoma and Clark, 1988; Sheth and Sisodia, 1995). Furthermore, effectiveness is defined as a goal attainment of view of a organisation (Lewin and Minton, 1986), so this implies that the performance of organisation meets or exceeds the organisation goals are seen as effectiveness. Specifically, effectiveness is consistent with organisation performance relative to aspiration or expectation level (Lant, 1992). The purpose of implementing strategy is to achieve some set of objectives in a company when effectiveness provides an alternative measure to evaluate the performance of company's objectives. In some previous studies effectiveness has diverse and similar definition. Effectiveness is defined as a comparison of programme results to expectation for results and is used to formulate the concept of managerial performance (Jawsorski, 1988). In final, Armstrong and Collopy (1996) indicates that effectiveness is defined as success compared to competitors, which is certainly a goal framework in the marketing management literature.

The adaptability of marketing has been an measurement of marketing performance assessment. Most previous studies posit that the environment is a determinant factor of performance. Drazen and Van de Ven (1985) utilize a contingency theory perspective in their review of strategic research and suggest that organisational performance depends on the “fit” (or interaction) between variables under study.

From adaptability perspective, success of a company arises when a company's strategy fits the environment (Lambkin and Day, 1989) and a company strategy fit the structure-conduct-performance (SCP) framework in the industrial organisation theory (Porter, 1981). The adaptability indicator was used on Walker and Ruekert's (1987) research as one of their three main constructs of performance.

Another performance measure is satisfaction. As Oliver(1980) states that satisfaction judgements are common across a wide variety of domains, it seems that managers should also decide how satisfaction on the performance in their firms or business units. The satisfaction approach is adapted from surveying the consumer to compare their experience in consuming a product with their expectations and satisfaction judgement(Clark,2000). However, satisfaction will not be employed to measure market performance based on two reasons. First, satisfaction is seldom used to measure market performance for a firm, industry or SBU in practice. Second, satisfaction judgement is a function of disconfirmation of expectations, and this disconfirmation judgement is driven by various aspects of the management experience(Clark, 2000).

Hofer(1983) indicates that different researches have used different performance measures. There is no uniform opinion about appropriate performance measure because different fields of study have different research questions and ultimate purpose(Hofer,1983). Selection of appropriate performance measures is a debatable issue. It seems that there is no one correct performance measure for every purpose. Different research question should lead to different performance measures. Walker and Ruekert(1987) states that"*....they involve substantial tradeoffs; good performance on one dimension often means sacrificing performance on other...*" (p.19). Walker and Ruekert(1987) also note a temporal characteristic in the three performance dimensions, with efficiency being short term and effectiveness and adaptability being more long term in nature. However, due to the broad and often conflicting indicators used for measuring business performance, it is important to precisely delineate the domain covered by the performance variables within a given study.

2.6. Marketing Strategy Model Review

These above three dimensions including marketing environment, strategy and performance have generated many studies, empirical and conceptual approach, which can enrich the understanding about the relationship among marketing strategy, performance and environment. A few studies have focused on the contingency relationship of all three variables simultaneously. Most of empirical studies for the strategy-performance relationship have been made progress focused on company performance explanation in the marketing literature (Mckee et al,1989; Buzzell and Gale, 1987; Hambrick and Lai, 1985; Phillips, Chang and Buzzell, 1983; Day and Wensley, 1983 McGuinness and Little, 1981). These studies have established strong indications and support that marketing environment and strategy have some consistent patterns of relationship which may influence operational performance. The existing marketing strategy models are shown in the Table 2.3. Although numerous empirical studies have been performed in the marketing strategy models, only those having implications for the thesis were considered.

Table 2.3. Existing Marketing Strategy Research Results

Author	Zou and Cavusgil , 2002
Environment construct	Global environment
Marketing strategy construct	4P standardisation, Coordination, Concentration and Integration
Performance Construct	Strategic and financial performance
Other construct	nil
Theoretical background	IO and RBV
Sample frame	Global industry
Sample size	434 BUs
Response rate	33.6%
Research Methodology	Mail survey, CFA, elliptical reweighted least square(ERLS)
Research findings	<ol style="list-style-type: none"> 1. The international experience, global orientation and external globalising conditions have significant effect on global marketing strategy. 2. Global marketing strategy significant effect on strategic and financial performance.

Author	Morgan, Kaleka and Katsikeas, 2004
Environment construct	External (competitive intensity) and internal (capabilities and resource available) environment
Marketing strategy construct	Cost leadership and differentiation
Performance Construct	Export performance (economic, distributor and end user)
Other construct	Positional advantage
Theoretical background	SCP and RBV
Sample frame	Manufacturing firms from Dun and Bradstreet database
Sample size	601
Response rate	48%
Research Methodology	Mail survey, CFA, structural model estimation
Research findings	<p>1. Resource and capabilities affect export venture competitive strategy choices and positional advantages, which in turn affect export venture performance.</p> <p>2. The competitive intensity of the export marketplace does not have a direct effect on export venture positional advantages or performance.</p> <p>3. Competitive intensity moderates the relationship between export venture competitive strategy choices and the positional advantages.</p>

Author	Leonidou, Katsikeas and Samiee (2002)
Environment construct	Task environment, macroenvironment, organizational factors and managerial characteristics
Marketing strategy construct	Export targeting, export marketing strategy
Performance Construct	Economic and Non-economic
Other construct	Nil
Theoretical background	Contingency theory
Sample frame	Manufacturing firms
Sample size	690
Response rate	31 %
Research Methodology	ANOVA
Research findings	<p>1. Many marketing strategy variables demonstrate positive effects on export performance, the relationship is not always significant.</p> <p>2. Time of study, geographic focus and product type had a limited impact on the effect of marketing strategy elements on export performance.</p>

Author	Gardner et al, 2000
Environment construct	Market and industry environment
Marketing strategy construct	Assessment of the firm's marketing decision
Performance Construct	Market share, ROI
Other construct	Producer and consumer technology variable
Theoretical background	Contingency theory
Sample frame	Australian high technology companies
Sample size	350
Response rate	9 %
Research Methodology	Mail survey, factor analysis, regression
Research findings	<ol style="list-style-type: none"> 1. The marketing mix of high technology is different. 2. The market and industry environment characteristics that marketers have to contend with in relation to high versus low technology products differ in significant ways. 3. Price, channel and sales force elements are important predictors of market performance in the industry.

Author	Manu and Sriram,1996
Environment construct	Industry and market environment
Marketing strategy construct	Marketing strategy attribute, product-market scope
Performance Construct	ROI, cash flow on investment, cash flow on revenue, relative market share, change in market share
Other construct	Innovation orientation
Theoretical background	Strategic typologies
Sample frame	PIMS
Sample size	350 industrial business
Response rate	NIL, secondary data
Research Methodology	Cluster analysis, ANOVA
Research findings	<ol style="list-style-type: none"> 1. The research suggests a need to examine the type of innovation and the type of performance outcome. 2. A major implication in term of performance is that great care must be taken in adapting an innovation posture.

Author	Koh, 1991
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Environment construct	Organisational characteristics
Marketing strategy construct	4'P export marketing strategy
Performance construct	Profitability
Other construct	NIL
Theoretical background	Structure-strategy-performance(SSP) framework
Sample frame	US exporting firms, SIC3523,353,381,384
Sample size	950
Response rate	24.5%
Research Methodology	Mail survey, Chi-square analysis, t-test
Research findings	<ol style="list-style-type: none"> 1. Export performance is related to export channel strategy, which in turn, is related to the educational background in the international business of the principal export executive. 2. Export performance is related to pricing and channel strategy, which in turn, is related to the firm's export policy.

Author	Cavusgil and Zou, 1994
Environment construct	Internal forces - firm and product characteristics External forces - Industry and export market characteristics
Marketing strategy construct	4'P adaption and Standardisation
Performance construct	Strategic objectives, successful/unsuccessful, sales growth, profitability
Other construct	none
Theoretical background	SCP framework
Sample frame	Companies with export ventures (unit of analysis is export venture rather than firm or industry) in US Midwest state
Sample size	202 export venture cases(79 firms,16 industry)
Response rate	NIL (interview)
Research Methodology	Personal interview, EFA(explanatory factor analysis), path analysis
Research findings	<ol style="list-style-type: none"> 1. Firm competence and management commitment have a direct impact on export performance. 2. Export marketing strategy is influenced by internal and external forces.

Author	Shipp and Lamb, 1996
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Environment construct	11 environment variables
Marketing strategy construct	8 marketing mix variables
Performance construct	Relative market share
Other construct	NIL
Theoretical background	SCP framework
Sample frame	PIMS(cross industry and firm)
Sample size	2744 business unit
Research Methodology	Chow test
Research findings	Industry imports and industry concentration have a significant impact on the relationship between marketing mix and SBU performance, while product life cycle and business type do not significantly effect the relationship.

Author	McKee et al, 1989
Environment construct	Market Volatility
Marketing strategy construct	Marketing tactics
Performance construct	ROE, ROA, percentage change in market share
Other construct	Organisation strategy type
Theoretical background	Contingency theory
Sample frame	Banking industry
Sample size	560 banks
Response rate	59%
Research Methodology	ANOVA, Regression analysis
Research findings	<ol style="list-style-type: none"> 1. In volatile markets, analyser organisations are found to outperform other organisation strategy types. 2. In more volatile markets, the strategy-performance alignment is less clearly determined by the market environment.

Author	Appiah-Adu, 1991
Environment construct	External environment
Marketing strategy construct	Generic marketing strategy
Performance construct	ROI, sales growth
Other construct	Market orientation

Theoretical background	Marketing orientation concept
Sample frame	Managing directors of manufacturing and service firms
Sample size	200
Response rate	37%
Research Methodology	Regression analysis
Research findings	The results indicate that market orientation does not appear to have a direct impact on sales growth or ROI, the competitive environment does influence the market orientation-performance link.

Author	Kotabe and Okoroafo,1991
Environment construct	Market condition
Marketing strategy construct	Firm strategy
Performance construct	Firm performance
Other construct	Firm market position
Theoretical background	SCP framework
Sample framework	US and Japanese Manufacturing firms
Sample size	882
Response rate	Japanese firms :23.2%, U.S. firms : 41.9%
Research Methodology	T-test, Chi-square
Research findings	The research finds that most of PIMS principals found in the US are perceived by Japanese executives to apply in Japan. Japanese executives are found to perceive a firms' market position to be the most important influence on firm performance.

Author	Barrett et al, 2000
Environment construct	Corporate entrepreneurship
Marketing strategy construct	Marketing mix factors
Performance construct	Market share
Other construct	NIL
Theoretical background	Contingency theory
Sample frame	Tennessee Association of Business in the US
Sample size	750
Response rate	19%
Research Methodology	Mail survey, multiple regression

Research findings	<ol style="list-style-type: none"> 1. The research shows that individual marketing mix factors do moderate this entrepreneurship-business performance relationship. 2. Corporate entrepreneurship -business performance correlation is strong with medium size firm and even stronger with large firms.
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Author	Pelham and Wilson, 1996
Environment construct	Market structure, firm structure
Marketing strategy construct	Firm strategy
Performance construct	Market share, ROI
Other construct	Market orientation
Theoretical background	SCP framework
Sample frame	PIMS
Sample size	353
Response rate	NIL
Research Methodology	Regression analysis
Research findings	Weak causal relationships between, environment, small firm structure, small firm strategy and performance.

2.7. Model Shortcoming in Existing Studies

Several factors have contributed to this shortcoming including variations in level of analysis (such as corporate strategy versus strategic business unit strategy, industrial versus firm level), the dynamic nature of the relationship, limitations in statistical capabilities, moderator variables issues , the synthesis of different schools and the relationship of consistency.

(1) Variation in level of analysis

In the marketing literature variations in the level of analysis of the environment-strategy-performance model are prevalent in the literature. Zeithmal, Varadarajan and Zeithmal(1988) noted that selection of contingency variable levels appears to be " an arbitrary decision." An ancillary issue is the frequent usage of the same terminology

to depict different phenomena. More specifically, Porter's (1980) industrial organisation economics interpretation of the interdependence of market structure, strategy and performance aggregates on an industry level. In Porter's (1980) contributions, environment and strategy play key roles in shaping the performance of an industry. The industry level of analysis is consistent with that used by one of the earliest theorists, Bain (1956). However, another early theorist, business historian Chandler (1962) relates environment and strategy to firm level performance. In addition to these two divergent examples of variance in level of analysis, further differences exist among the marketing and strategy literature. At the firm and industry level of analysis, wide variation exists in the number of variables utilised to characterise environment, strategy and performance.

(2) Dynamic relationship

In empirical tests, cross-sectional studies examining marketing environment-strategy-performance have had mixed results. Mintzberg (1978), Miller and Droge (1986), and Miller (1988) have suggested that the mixed results of environment-strategy-performance research due to the neglect of the mediating role of strategy. However, an important shortcoming is the inconsistency in distinguishing relationships of each element is the fluid or recursive relationship. Environments are constantly evolving as government regulations, competitive forces, technological advancement, and socio-political elements interact with the strategic capabilities of firms. Most marketing strategy research establishes reactive and unidirectional relationship among a firm's environment, strategy and performance in which each construct is conceptualised as the casual antecedent of the following element. That is, a shift in the environment is premised to be followed by a change in strategy, and finally producing favourable performance. Additionally, researchers have theorised bi-directional relationships among environment, strategy and performance (Scherer, 1996; Farjoun, 2002),but empirical researches of bi-directionality are lacking. Marketers need substantial evidence that a theory provides. Theory affords a solid foundation for basing decisions, whereas an untested concept merely offers prescriptive decision rules as a basis for evaluation (Hunt, 1983).

Nevertheless, Farjoun(2002) seminal study of the multidivisional or multilevel firms relied on in-depth analyses to establish directionally. Specially, Farjoun (2002) suggests that meticulous longitudinal methods are especially appropriate for examining the dynamic organisation-environment-strategy-performance (OESP) framework. However, this dynamic empirical analysis has not been prevalent in the literature in recent history. Cross-sectional studies have often been employed or secondary data bases have been utilised (such as PIMS and Canadian Financial Post Survey of Industrials) which lack the reliability data obtained. Furthermore, employment of these methods has exacerbated contention over the directionality of the environment-strategy-performance relationship by obscuring the nature of these relationships.

(3) Statistical capabilities

In general, failure to address directionality issues in previous research framework and model has been due to research limitations in statistical capability. Previous empirical tests of the model generally embrace interdependent multivariate techniques or utilise a causal inference model to test components of environment-strategy-performance model. In the marketing and strategy literature, most researches establish unidirectional relationship between environment, strategy and performance, but they fail to support their conceptualisations of bi-directional relationship. However, a limitation of their work is the usage of cross-sectional data to test a longitudinally dynamic relationship. As most authors state "...it is important to stress that our data are cross-section and do not allow any strict casual inferences. Thus, the research limitation is tentative and need further research by longitudinal analysis."

In addition, structural models make the interdependent of decisions explicit and therefore force the researchers to confront the endogeneity problem. Endogeneity arises because marketing variables not only affect marketing performance, but performance also affects managerial variables. For example, advertising presumably increases the quantity sold, but advertising budgets are often set as a percentage of sales. Similarly, prices are often set in response to observed sales performance, but

prices have a major impact on sales. Therefore, the endogeneity of marketing strategy variables is crucial to obtain unbiased parameter estimates.

(4) Moderator variables

A moderator is a variable that systematically modifies either the form and strength of the relationship between a predictor variable and a criterion variable (Sharma, 1981). Although several marketing researchers agree that the concept of a moderator variable is important, there is some confusion about what a moderator variable specifically is and how it operates to influence the classic validation model (Sharma et al, 1981). This confusion has potentially made the comparability of marketing strategy-performance results across studies difficult. Furthermore, it is unclear that the literature has sufficiently determined whether or not marketing environment conditions moderate the market strategy-performance relationship. The possibility of a moderating effect is consistent with a long tradition of support for the theory that the environment moderates the effectiveness of a particular marketing strategy and is contingent on the dynamics of the market (Slater and Narver, 1994).

Perhaps more than most disciplines of scientific inquiry, marketing is context dependent (Sheth and Sisodia, 1999) and the level of an organisation's marketing strategy is also likely to be context dependent. A context that may play a significant role in the marketing strategy-performance relationship is the marketing environment. However, the previous model has provided mixed empirical results for market environment conditions, or contingencies, that have a moderating effect on the marketing strategy-performance relationship.

(5) The synthesis of different schools

Basically, IO economics and RBV are complementary by nature, which the former is identified as external marketing environment, and the latter adopting an internal focus. Hence, when looking at the strategic responses of organisations both internal and

external factors should be accounted for. Douglas and Ryman (2003) argue that IO and RBV theories are the cornerstones of future research in strategic management, few studies have accomplished the integration of the two. Future research needs to develop an integrative and comprehensive model by analysing different schools of thought.

(6) Limitation of research design

Since the strategy-performance sequence is essentially dynamic, and different firms and industries are likely to be at different points in a cross-sectional study. Cross-section research design has methodologies limitation so that it cannot explore the dynamic dimension of marketing environment, strategy and performance. Ramasway et al (1993) utilise the PIMS database to test environment-strategy-performance relationship. However, since the database captures limited structure variables, no adequate inference can be made from these studies regarding environment-strategy-performance framework. The Strategic Planning Institute's PIMS programme has analysed the pooled business experiences of over 2400 corporations to determine the effectiveness of marketing strategies. Research indicates that widespread corporate use of portfolio and PIMS analysis reveal several empirical questions concerning the validity of other conclusions(Jacobson and Aaker,1985; Cravens,1987).

(7) The consistency of relationship

While past studies have tested the performance effects of absolute and relative intensity of marketing strategies and environment, the importance of the consistency has not been researched adequately. Accordingly, a firm is persistent in developing and renewing marketing programmes and product-market strategies when the firm devotes its resources to a particular marketing strategies intensely and consistently for some period of time. An intense resource deployment strategy is identified when a firm invests a higher portion of its financial resource, relative to its size or the industry average, into a certain functional area. A consistent intense resource deployment

strategy is not identified when a firm makes intense investments for a certain period of time in previous empirical studies.

The marketing models that were employed econometric method were popular in the past, but their major limitation is that they provide universal simple solutions to complex issues in the marketing and strategy literature. Based on the shortcoming, it might use appropriate research methodology for simultaneously estimating the measurement and theoretical models and encompass a large number of variables in the proposed model.

In sum, because of limitation of research methodology and statistical capabilities, the dynamic process of marketing environment, strategies and performance over time remains an unsolved issue. It is acknowledged that the study hopes to prove a very useful foundation for follow-up studies such as to develop and test dynamic models of property marketing or other service marketing, and to refine the measures of the model.

2.8. Summary

The chapter has reviewed the dimensions of marketing environment , strategy and performance which is relevant to property market and provided a review of some empirical studies on marketing strategy models. It is important to precisely delineate the domain covered by marketing environment, marketing strategy and marketing performance dimensions within a given study. Thus, some research framework has been developed for this study including internal and external environment, product market strategy and marketing programme decision, financial performance. For the previous marketing strategy model review, due to the complex and multi-dimensional nature of the property marketing environment, it is important to expand the domain of the environment and marketing strategies variables to include a wider range of facets of the issues confronted by property firms. In final, although there was a strong argument for a multivariate contingency approach, considering marketing environment, strategy and performance, there is still a lack of empirical study for examining consistency and durability relationship among these three theoretical

research constructs. The next chapter discusses the proposed organisation-environment-strategy-performance (OESP) framework, the model of property marketing, and the variables selection and measurement.

Chapter 3

Conceptual Model and Research Hypotheses

3.1 Introduction

The purpose of this chapter is to introduce the theoretical background for the conceptual model, presenting a summary of relevant theories including classical industrial organisation (IO) theory, the revisionist/Chicago theory, the new industrial organisation (IO) theory, the business policy school/The PIMS paradigm, the Austrian economics school, the resource based view(RBV) theory, organic perspective on strategy. The common theme of these theories is attempted to explain variance in firm or strategic business unit performance and highlights the network relationships among marketing environment, marketing strategy and marketing performance. Another purpose of this chapter is to develop a conceptual model based on the relevant literature. The proposed research model concentrates on the network relationship of marketing environment, strategy and performance. After defining the different constructs in the model, a set of hypothesised relationships among constructs is proposed. The selection, definition and measurement of research variables are also discussed.

3.2 Classical Industrial Organisation Theory

The school largely draws on the research work of Mason(1939) and Bain(1951,1956). The Bain-Mason paradigm suggests that industry structure influences firm conduct(or strategy), which in turn influences performance. Popularly known as the structure-conduct-performance(S-C-P) paradigm, this stream of research was motivated by public policy considerations. The term industry structure in this framework refers to the characteristics of an industry. The term firm conduct refers to specific firm actions in an industry including pricing behaviour, product/service strategy, research/development(R&D), and investment in plant and equipment. The term performance refers to the aggregate performance of individual firms or industry. The

SCP framework postulates that the economic performance of individual firm is a function of the conduct of the firms which in turn is a function of the industry's structural characteristics(Mason,1939; Bain,1956).

Industry structure was defined as the relatively stable economic and technical dimensions of an industry that provided the context in which competition occurred (Bain,1972). The primary elements of industry structure that were identified as important in this stream of research were barriers to entry, industry concentration, product differentiation and the overall elasticity of demand (Bain,1968). Conduct or strategy was the firm's choice of decision variables such as advertising and promotion strategy to be adopted. Performance was defined broadly and with a micro economists' focus on social efficiency of production factors. In this conceptualisation performance embodies the major goals: the distribution of income should be equitable. This implies that producers do not secure rewards far in excess of what is needed to call forth the amounts of service supplied.

In the classical IO school, structure was the model construct of primary importance. Although initially conceptualised to be of secondary importance, conduct was consistently ignored in some empirical studies. Teece(1988) provides additional reasons as to why conduct(strategy) was ignored by the classical IO school: (1) a stronger concern for consumer welfare and public policy than individual firm performance, and (2) an emphasis on formal quantitative modelling of firm conduct that required simplification of managerial attributes or behaviours.

3.3 New Industrial Organisation Theory

Strategic groups have been defined as a set of firms that compete within an industry on the basis of similar combinations of business scope (such as target market segments; types of goods/services offered; and geographic reach) and resource commitments(Cool and Schendel,1987). A key assumption of classical IO economics is the homogeneity of firms within an industry. However, some researchers have questioned this assumption. Demsetz(1973) raised questions regarding the validity of such an assumption. Acknowledging the questionable

assumption of traditional IO research, more recent efforts have attempted to identify strategic groups of firms rather than the industry.

One of the most influential approaches that emerged from these accumulated studies is that superior performance is a function of gaining and sustaining competitive advantage(Porter,1980,1985; Wernerfelt,1984; Barney,1991). The term competitive advantage is a relative concept that refers to the ability of a firm to outperform its rivals on some performance criteria. Gaining and sustaining of competitive advantage enables a firm to attain above industry average performance(Porter,1980, 1985; Barney,1991) which is measured by different indicators depending on a company's goals. The research on resources of competitive advantage is primarily driven by two perspectives which heavily borrow concepts from the field of economics. The first one is grounded in the earlier works of Bain(1959) and Mason(1938) in the area of industrial economics and mostly developed by Porter(1980,1985). It is termed the industrial organisation view of competitive advantage.

Many new IO studies (Caves,1980; Porter, 1979; Scherer, 1970) have focused mainly on the influence of the business environment on performance. The main research interest is to examine the difference in performance of groups of organisations, given that each group is facing a different business environment. Scherer (1970) indicates that organisations facing a different industry structure and market concentration will exhibit different performances. In comparison, traditional IO strategic group research focused on examining homogeneity across industries and used the industry as unit of analysis(Porter,1979), while new IO research efforts have admitted the presence of heterogeneity within strategic groups and have focused on specific industries or the firm as the unit of analysis.

IO researchers in the strategic management field focused on models that could help firms in achieving above normal profits by circumventing competition(Barney,1986; Reed and DeFillippi,1990). A well diffused representative work is the five forces model(Porter,1980). The framework's function was to explain the profits and consisted of several explanatory variables including the bargaining power of suppliers

and buyers, competition from rivals and entrants and indirect competition from substitutes. Additionally, a market where both the suppliers and the buyers had low bargaining power, and the threat of both direct and indirect competition was low was considered “market attractiveness”. Market-deterrent approach (Teece, Pisano and Schuen,1997) or more commonly as product-market approach, the basic premise underlying this approach was that the market and industry conditions impose certain pressures to which an organisation must respond. Firms that successfully adapt these industry conditions would survive and grow. Firms that do not adapt to these environmental conditions would fail.

Increasingly, other strategy researchers developed a wide variety of descriptions of firm strategic behaviour including: (1) typologies (Buzzel, Gale, Sultan, 1975), (2) taxonomies(Hambrick, 1993a),(3) generic strategies(Porter, 1980) and (4) strategic groups(Cool and Schendel,1987). However, in spite of the rigor of these efforts, an obvious research limitation was that a business’ profitability could not be explained by product-market factors alone, and a significant portion of the variance in performance remained unexplained (White, 1980; Cool and Schendel, 1988; Dierickx and Cool, 1989).

3.4. The Revisionist/Chicago School

Economists from the Chicago (revisionist) school of industrial organisation(Stigler, 1968; Demsetz,1973) were not satisfied with SCP paradigm developed at Harvard school, and by its related strict anti-trust legislation(Conner,1991). By introducing the assumptions that information is costly and perfect information does not exist in the markets, they suggest that effective collusion cannot persist over time, because of the existence of monitoring costs and incentives to cheat (Stigler,1961). Therefore, firm superior performance cannot be explained (in the long-term) by effective collusion, but by a firm’s efficiency differentials in production or distribution. In other words, superior performance can be explained by the presence of rents to specialised high quality resources(Peteraf,1993; Rumelt et al,1991). A very important implication of this theory is the notion of the existence of non-homogeneous inputs or factors. This will give theoretical justification for the observation of firm heterogeneity.

The Chicago school posits that the key driver of performance is the efficiency of a firm. However, the proponents of the school do not view the relationship between concentration and profits as plausible (Demsetz,1973; McGee,1988). According to the efficiency / revisionist paradigm, here occurs continual reallocation of resources to the high values opportunity (McGee, 1988). Industry equilibrium may or may not occur depending on the ability of the new entrants to replicate what incumbents have achieved and replicated their cost structures. Thus, the Chicago school posits that incumbent firms can lower their costs, increase their size and gain above normal profits through superior innovativeness or managerial skills(Demsetz,1973).

3.5. The Strategic Management School and PIMS Paradigm

The strategy-performance link is based on strategic management field and PIMS principle. The PIMS approach is employed to explain performance variance by sharing marketing experience at the business unit level in terms of market structure, marketing strategies pursuit by the business unit(Buzzel and Gale, 1987). Many strategic management studies(Hambrick,1983a) have centred on discussions about the relationship between strategy and performance. The strategic management literature has also examined the linkages between performance and a variety of strategic variables. Considering the environment to influence the firm's conduct, and ultimately the organisation performance- both directly, and indirectly through conduct- is consistent with the marketing strategy models in the marketing literature (such as Kotler et al,1998).

The Profit Impact of Marketing Strategy (PIMS) paradigm is a cross fertilisation of management practice, industrial organisation economics, strategic management and strategic marketing. The PIMS programme initiated in 1972, was originated as an internal project at General Electric (GE) and was used for many years as a tool for corporate and business planning (Buzzell, 2004). The PIMS programme is now housed at the Strategic Planning Institute, a non-profit business research organisation. The PIMS database contains historical information on market structure conditions, competitive strategy and financial performance of nearly three thousand strategic

business units(SBUs) drawn from more than four hundred and fifty corporations representing a broad spectrum of industrial environments, for periods ranging from two to twelve years(Buzzell and Gale,1987).

Business or competitive strategy attempts to address the question” how should we compete in the market? “ According to Porter(1987), corporations do not compete, while business units do. Competitive strategy attempts to address how a business unit should operate in its unique environment, deal with specific customers and competitors, and allocate resources of functional areas in order to position itself to achieve superior performance(Varadarajan and Ramanujam,1990). Consistent with Porter’s (1987) viewpoint, the PIMS paradigm primarily focuses at the business unit level. A business unit is defined as an entity that has its own mission, produces and markets a well defined set of related products and services, serves a clearly defined set of customers in a reasonably self contained geographic area and competes with a well defined set of competitors.

On the other hand, PIMS researchers had focussed on tangible factors and argued that modelling the linkages among observed strategic factors provide reasonable approximations of business performance. Jacobson(1990) made effort to control for unobservable factors in a serial correlation model with return on investments as the dependent variable. Moreover, Jacobson and Aaker(1985) finds that not controlling for unobservable variables has several consequences :

- (1) Since unobservable variables are correlated to both dependent and the independent variables, the estimates of the independent variables are biased.
- (2) In some cases they even reverse the sign of the estimated coefficients. For example, when unobservable variables are not controlled, marketing expenditures have an adverse impact on return on investment(ROI).
- (3) The explanatory power of the ROI model which does not control for unobservable variables is highly overstated.
- (4) The influence of unobservable factors is so pervasive as to invalidate many of the conclusion dawn from studies not controlling for unobservable variables.
- (5) Unobservable variables not only influence performance directly, but they also influence strategic choices.

The initial goal of the PIMS programme was to identify “ strategic principals” or “ law of the market place” with regard to profit levels, impact of strategic actions, and impact of changes in the business environment (Kerin, Mahajan, and Varadarajan,1990; Buzzell and Gale,1987). Previous research methodology adopted to achieve this goal is to analyse the market conditions, competitive position, competitive strategy and financial performance of SBUs that form a part of the programme. Since the PIMS paradigm focuses on the impact of market conditions, competitive strategy, competitive position on SBU performance, there is a need to expand on these variables. Market conditions are similar to industry structure as examined in the traditional industrial organisation literature. Competitive strategy and position are dealt in greater detail in this PIMS paradigm.

3.6. The Austrian Economics School

The Austrian school of economics shares a great deal of commonality in philosophy with the efficiency and the newly emerging resource based schools of thought. In marketing, Alderson, Jacobson, and Dickson have been influenced by the Austrian Economics School in their research works. The Austrian school has certain interesting aspects that have a great deal of relevance to performance models and represent an important alternative to traditional industrial organisation economics. Porter’s strategic objective for a business unit is to position itself where it can best defend itself against competitive forces (Porter,1980). To the Austrian economists, competition is best understood as a dynamic discovery process in which entrepreneurs compete to identify profit opportunities. In order to exploit these existing profit opportunities, entrepreneurs utilise a variety of strategies, such as product differentiation, advertising, price cutting, scale economies and other marketing expenditures which are perceived by traditional industrial organisation economists as anti-competitive(Kirzner,1973).

The key focus of the Austrian economics school is the emphasis on unobservable and intangible factors as determinants of business performance. The school proponents emphasised the lack of intangible and unobservable factors as negating available

information. Itami(1987) suggests that the category of intangible factors including accumulated consumer information, brand name, reputation, and management skills are examples of factors which could influence business performance, and then these could influence strategies adopted by firms(Jacobson,1990). Jacobson's(1988,1990) empirical study has been largely affected by the Austrian school of economics. In a variety of empirical efforts, Jacobson(1990) has emphasised the importance of controlling for unobservable variables in profitability models.

The Austrian school of economics serves as interesting and theoretical addition to strategy literature. The school that focuses on unobservable variables is particularly important to modelling the effect of performance. They believe that the direction of causality implied in the SCP paradigm is wrong. Key to the Austrian economics is the emphasis on unobservable factors in contrast to the focus on tangible factors in the other strategy research. The perspective is stressed further in the examination of the resourced view of the firm.

3.7. Resource Based View Theory

The resource-based view of the firm has its origins in the work of Penrose(1959) and Nelson and Winter(1982), and has been more extensively developed by Barney(1986b;1991), Dierickx and Cool(1989), Mahoney and Pandian(1992), Peteraf(1993) and Wernerfelt(1984). This perspective conceptualises organisations as collections of 'sticky' and 'difficult-to-imitate' resources or competencies (Teece et al,1992). These resources may be tangible, such as specific product designs or particular product techniques, or intangible, such as brand equity, knowledge of particular market or unique management practices. Possession of these resources is argued to be a necessary condition for creating and sustaining competitive advantage. The resource based view further argues that firm resources must be valuable, inimitable and non-substitutable in order to contribute to competitive advantage(Barney,1991; Peteraf,1993). Therefore, resources can continue to generate sustained rents to the degree that they are specific to the firm and require significant adjustment costs in the new environments in which they are applied.

The resource-based view (RBV) of the firm for interpreting business environment regards the organisational resources, skills and competencies to have a greater impact on firm performance than industry factors(Barney, 1991 ; Wernerfelt, 1984). Differential resources, especially those that are intangible in nature, are considered to be the main drivers of competitive advantages (Barney, 1986b). Accordingly, superior firm performance is regarded as dependent on the four Rs of organisational resources, routines, replication and rent (Barney, 1991; Wernerfelt, 1984, 1995; Winter, 1995). Because of its managerial focus, the resource-based view researchers assumed that firm factors are more critical determinants of performance than industry factors- is becoming popular and increasingly reflected in the marketing literature.

The focus of the resource based perspective is on the costly-to-copy attributes of a firm as sources of economic rents and as the fundamental drivers of performance and competitive advantage (Rumelt,1984,1987; Barney,1986b). According to this perspective, a firm's ability to attain to competitive market position depends on its ability to gain and defend advantageous positions in underlying resources important to production and distribution (Conner,1991). Barney (1991) indicates four essential requirements for a resource to be a source of sustainable competitive advantage: (1) resource must be valuable,(2) resource must be rare among a firm's current and potential competitors, (3) resource must be imperfectly imitable, and (4) resource must not be strategically equivalent substitute for this resource.

Firm resources are considered valuable when they enable a firm to implement strategies that improve its efficiency and effectiveness. However, if valuable resources are possessed by a large number of present and potential competitors, it cannot be source of sustained competitive advantage. In other words, unless the resource is rare, it is unlikely to be a source of competitive advantage. Resource should be imperfectly imitable (Barney,1986a,1986b). The final requirement for a firm resource to be source of sustainable competitive advantage is for the resource to be non-substitutable. In the presence of substitutable resources, however, a single firm cannot implement a strategy that rival firms cannot replicate. Substitutability can take two forms: (1) even if a firm cannot exactly duplicate a competitor's resource, a firm can substitute a similar resource that enables it to implement the same

strategies, and (2) firms can use very different resources as strategic substitutes(Barney,1991).

Peteraf(1993) argued that these four requirements are necessary but not sufficient conditions for achieving sustainable competitive advantage. The price paid for the resource fills in the sufficient condition. If the market is competitive for the resource, its price will increase until it is equal to the present value of the future rent stream(Barney,2001b). Consistent with the resource based view, the thesis stresses the importance of firm specific intangibles(resources and compencies) as determinants of performance. The thesis views the examination of intangible resource and compencies as determinants of business performance. Porter(1991), Collis(1991) and Amit and Schoemaker(1993) indicate that the resource based view is complimentary rather than an alternative to the role of industry structure and competitive strategy as determinants of firm performance. Conner(1991) and Mahoney and Pandian(1992) suggest that the resource based stream of research has the ability to coalesce extant literature on industry structure and competitive strategy with literature that emphasises idiosyncratic firm specific assets and skills.

The resource based view of the firm had its intellectual beginnings in the early strategy work on distinctive competencies, Penrose's (1959) theory of the firm. Hofer and Schendel(1985) defined distinctive competencies as the unique competitive position that a firm achieves through resource deployment. In the few empirical efforts on distinctive competencies, Snow and Hrebiniak(1980) identified functional areas of a firm that were also areas of competencies. Hitt and Ireland(1985) listed fifty-five distinctive competence activities within functional areas. The empirical efforts on distinctive competencies can be classified into the following: (1) the source of competency is always internal to a firm, and (2) competency is produced by the way a firm makes use of its internal skills and resources relative to competition (Reed and DeFillippi,1990). Penrose(1959) suggested that "*it is the heterogeneity ...of productive services available or potential from its resources that gives each firm its unique character*"(p.75). This implied that firms achieve superior performance not only because they have better resources, but also due to distinctive competence to make better use of these resources.

The resource based view begins with two assumptions: (1) the resources need to conceive, choose, and implement strategies which are heterogeneously distributed across a set of competing firms, and (2) these firms differences are stable over time(Barney,1991b). Barney(2001a) states the research objectives of the resource based view to be “ a model that facilitates the rigorous analysis of internal organisational strengths and weaknesses and ties this internal analysis with an external analysis”(p.5). The resource based view perceives firm resources to include all assets, capabilities, organisational processes, firm attributes, information, knowledge, etc., controlled by a firm that enable it to conceive of and implement strategies that improve its efficiency and effectiveness(Barney,1991). Other resource based theorists distinguish between resources and capabilities(Grant,1991), types of capabilities(Lodo, Boyd and Wright,1992), and dynamic capabilities(Teece, Pisano and Shuen,1997).

3.8. Organic Perspective on Strategy

Finally, Farjoun (2002) argues that previous “ mechanistic “ perspective based on disciplinary-based theories has provided a unified view, but a narrow and increasingly less pertinent one while the advent of organic perspective should develop evolutionary and process models. The progressions marked on epistemological shift from mechanistic to organic assumptions: from discrete to incessant time, from directional to interactive flow, and from differentiated to integrated constructs and models(Farjoun, 2002). The research intends to test a marketing strategy model of organic perspective and emphasise the feedback effect of marketing strategy and performance. The difference of static and process models were identified by Farjoun (2002) in the Table 3.1.

Table 3-1 The Organisation-Environment-Strategy-Performance(OESP)Framework
Key distinctive features of the mechanistic and organic model

Previous research		The research	
Static model		Process model	
Mechanistic Perspective		Organic Perspective	
Model	Linkage	Model	Linkage
SCP	E-S-P	OESP	O-E-S-P
SSP	S-O-P	SCP (new linkage)	S-E, P-E, P-S
RBV	O-S-P	RBV(new linkage)	S-O, P-O
		Management of internal change	S-O, O-S
		Self-influences (optional)	O-O, S-S, E-E, P-P

Resource : Farjoun, 2002, p.573

O: Organisation (resources)

E: Environment

S: Strategy

P: Performance

Distinctive Features: (Farjoun, 2002)

1. Broader, multi-level and dynamic constructs
2. Extension of process models (how questions)
3. Emphasis on history or self-loops
4. Highlighting relatively unexplored dyadic relationship (such as performance-environment, strategy, organisation, strategy-environment)
5. Accommodating interactions

In theory and practice, the structure-conduct-performance(SCP) relationships are not strictly casual in one direction; there are also feedback loops - from performance to conduct, and to industry structure(environment)(Scherer,1996; Farjoun,2002).

However, in existing SCP framework studies for easing of modelling, the relationships are assumed to be unidirectional, from structure, to conduct, and finally to performance. Although the direction of relationships is based on existing theory, it is equally plausible that “performance influences strategy” or “performance influences environment” in organisations. Hence, the path linkages in the model do not strictly imply causality in the specific directions(Farjoun,2002). The question of construct sequence is an important one that should be addressed in the research.

3.9. Summary and Critique of Different Theories

In economics, the classical industrial organisation(IO) literature has long theorised about the structure-conduct-performance(SCP) relationship. The IO model postulates that an industry’s structure determines the conduct(strategy) of the firms in that industry and, together these determine industry performance. As IO researchers are primarily concerned with industrial and market structure(external environment), the body of research has traditionally ignored internal environment and conduct(strategy). Strategy (conduct) has simply been considered a reflection of structure.

Similar to the expectation of structural economists that there would be an industry membership-performance relationship, the basic hypothesis of the new IO research was there would be a strategic group membership-performance relationship. Research on the strategic groups suggested that there would be some firms competing on the same dimensions and each firm competing on an unique set of dimensions of strategic group in an industry based on a particular set of dimensions. In the other words, firms within a strategic group are assumed to be relatively homogenous, while those across strategic groups are relatively heterogenous. In other words, strategic group research is based on assumptions similar to those of traditional industrial organisation economics, albeit at a different and lower level of aggregation.

The PIMS paradigm views SBU performance as a function of three sets of variables: (1) The structure of the market in which an SBU operates, (2) The competitive position of the SBU in the market and (3) The competitive strategies pursued by the

SBU. The PIMS paradigm posits that market structure, competitive position and strategy will have main and interactive effects on SBU performance. Traditional IO economics research for a variety of reasons focused at the industry level, while the PIMS paradigm focused at the firm/business unit level in the business strategy and marketing literature.

While the Austrian economists' school view the market condition to be dynamic and disequilibrium state, IO strategy researchers tend to view the market in static terms. According to the Austrian economists' viewpoint, since the market is in a constant state of flux, some firms are able to exploit market imperfections to realise above normal returns for their resources. Hence, a search for empirical regularities through econometric modelling is not useful. The Austrian school of economics serves as interesting and theoretical addition to strategy literature. Particularly, unobservable variables are particularly important to modelling of performance. They believe that the direction of causality implied in the SCP paradigm is wrong.

The above different schools in the strategy and marketing literature do share a common goal for explaining organisational performance. Contrary to the propositions of the neoclassical theory of perfect competition, empirical evidence suggests that firms earn differential returns (Rumelt, 1991). Some firms outperform others, and sometimes this occurs for a long time period of time. These firms are considered here as superior performers, or in other words, as being able to achieve superior performance. A firm's superior performance is its relatively higher performance when compared to the competitors in the industry. Subsequent to the failure of the neoclassical theory of perfect competition in explaining superior performance, the determinants of superior performance has been influenced by different theoretical streams which are briefly discussed in the Table 3.2.

Table 3.2. Theoretical Reference for the Explanations of Firm Performance

Theoretical Approach	Key Determinants	Dependent Variable
Resource-Based View Austrian Economics	Firm-specific resource and other intangible factors	Firm performance

Traditional Industrial Organisation Approach Porter 5-Forces Framework	Attractive industry structure	Firm performance
PIMS Paradigm	Conduct	Firm performance

Much of the earlier theoretical work focusing on internal firm-specific factors and distinctive competencies as key determinants of firm success(Drucker,1954), was rapidly forgotten by strategic researchers, who influenced by the Harvard industrial organisation tradition(such as Bain,1951,1956; Caves and Porter,1977), turned to industry structure and market attractiveness for explaining the key determinants of performance(Porter,1980,1981). To cope with these changing and more dynamic competitive conditions, new theories of firm superior performance have emerged from the work of marketing, strategy, organisation theory in the last ten years. The new perspectives including resource-based view of the firm, competence-based competition, and evolutionary theory, all share a focus on the firm's rare, valuable, and difficult-to-imitate resources (eg. intangible assets, organisational capabilities) as the key determinants of superior performance (Wernerfelt,1984; Day and Wensley,1988; Barney,1991; Dickson,1992; Bharadwaj, Fathy and Varadarajan,1993; Hunt and Morgan,1995,1996; Dickson,1996;Hill and Deeds,1996). Marketing researchers, in particular, have highlighted the role of firm-specific, unobservable, and intangible resources (market orientation cultures, product nature and resource commitment) as key generators of competitive advantage and firm success(Kohli and Jaworski,1990; Deshpande, Farley, and Webster,1993; Hunt and Morgan,1995).

The organic perspective on strategy provides two important views for the further model development. First, the traditional SCP framework postulates the flows running from industry and market structure to conduct and performance. However, there might be also important feedback effects that had not explored. Second, IO economics and RBV are complementary by nature, with the former adopting an external focus and the latter adopting an internal focus. Here, when looking at the responses of organisations to property marketing context both internal and external

factors should be accounted for. An approach that integrates both main streams of literatures provides an opportunity to fill in the gap.

3.10. Proposed Research Framework and Model

Most previous studies applied and extended structure-conduct-performance (SCP) framework to develop some marketing models and explore the linkage of marketing environment, strategy and performance (Cavusgil and Zou, 1994; Lusch and Laczniak, 1989, Hooley et al, 1992). Basically, the SCP framework was extended from industrial organisation (IO) and the resource-based view (RBV) in some marketing strategies research (Porter, 1981; Scherer, 1996; Barney, 1991; Erickson et al, 1992; Clark, 2000). Since the above theory on the effect of firm and industry factors on performance are inconclusive, it is important to incorporate both the firm-level and the industry-level variables, those are, the environmental variables in the proposed model that aim to explain market performance in the property market.

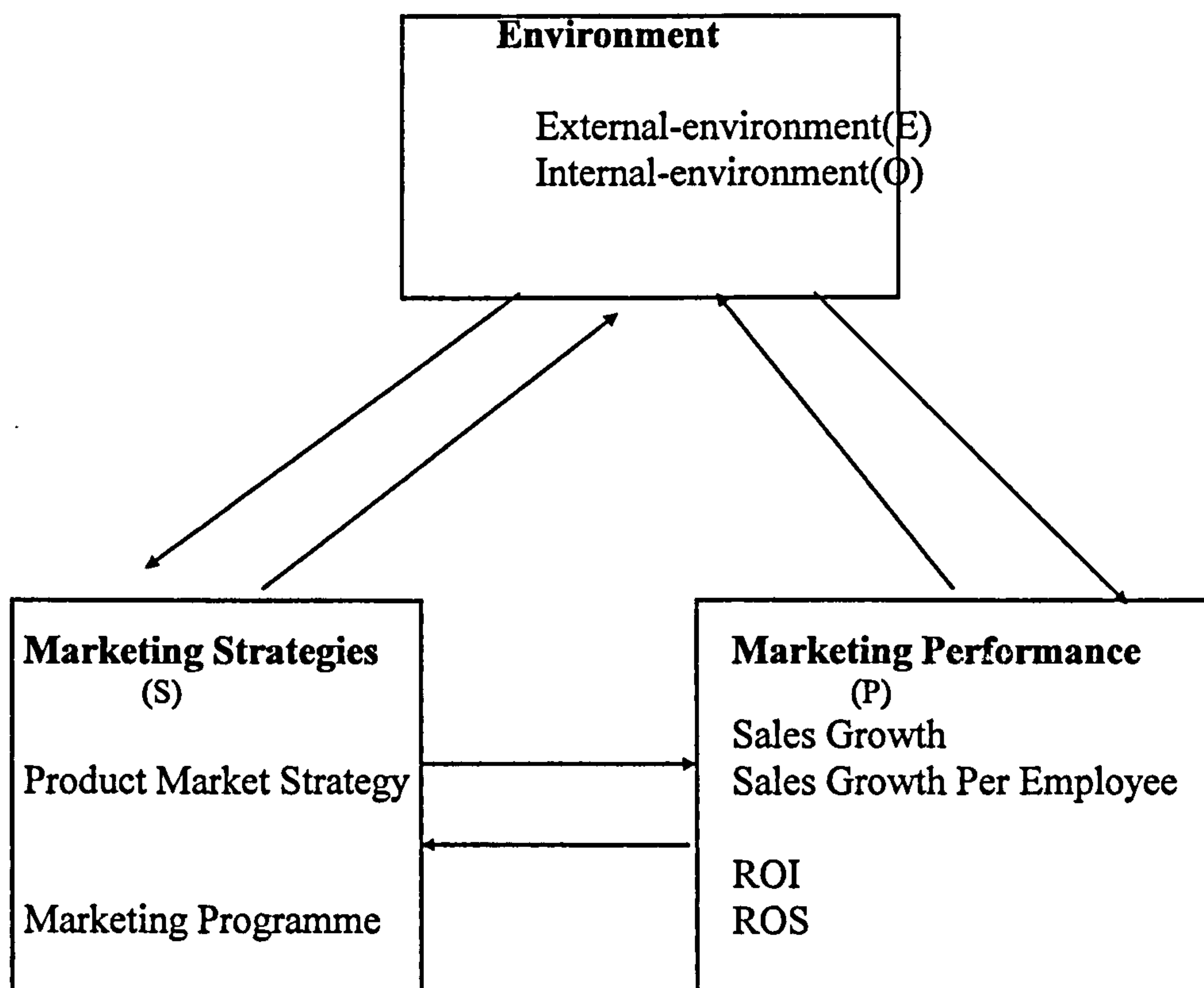
With the substantive stream of marketing strategy research, a basic marketing strategy paradigm or model, combining concepts from the business policy and strategy literature (Child, 1972; Hofer, 1975), the industrial organisation economics (Scherer, 1980), resource based view (Wernerfelt, 1984; Barney, 1991) and PIMS paradigm (Buzzell and Gale, 1987), has emerged. The combination of several theoretical paradigms shaped the way the extended model of property marketing was constructed. First was the classic "structure-conduct-performance" paradigm. Structure refers the environmental characteristics which is either internal or external. Business performance is posited as a derivative of the interaction between the firm and external and internal environments in which it operates (Vernon and Nourse, 1973).

In the research the proposed organisation-environment-strategy-performance (OESP) is extended from structure-conduct-performance (SCP) framework. According to the industrial organisation (IO) theory, the business environment, which is industrial structure, influences the conduct of firms within an industry, which in turn impacts on the performance of the industry (Scherer, 1996). Thus, the IO theory regards the

performance of firms to be largely determined by the industry structure within the firms operate. In the IO-based view, the industry factors are considered to have a greater influence on firm performance than the organisational factors because imitation leads to homogeneity (Caves, 1980).

A conceptual model grounded in the theoretical and philosophical underpinnings is presented in Figure 3.1. The model incorporate the three main dimensions of marketing strategy research- marketing environment, strategy and performance. The conceptualisation approaches an integrative model, but it is not comprehensive model since it does not incorporate all variables can explain the variance of performance. However, the model captures a key dimension of marketing strategy framework.

Figure 3.1. Proposed Model in the Research: Organisation-Environment-Strategy- Performance(OESP) framework



Organisation-Environment- Strategy- Performance(OESP) framework

(Adapted from Structure-Conduct-Outcome (SCP) framework)

The path from the external environment to the marketing performance represents the industrial organisation (IO) theory that regards external environmental factors as the main determinants of firm performance. Many industry organisation studies have focused mainly on the influence of the business environment on performance (Caves, 1980; Porter, 1976 and 1979; Scherer, 1970). On the other hand, the path from internal environment to performance reflects the resource-based view that considers the internal organisation factors as the main influence on firm performance. Similarly, the path from marketing strategies to performance reflects PIMS paradigm that considers marketing strategy factors as the main effect on performance. Combining the industrial theory (IO), the resource-based views (RBV) and the PIMS paradigm, the study proposes an extended organisation -environment-strategy-performance (OESP) framework (Farjoun, 2002) depicted in the Figure 3.1.

Empirical studies on the effect of firm- and industry-level variables on firm performance have produced mixed results. Mauri and Michaels' (1998), Rumelt's (1991), Eriksen and Knudsen's (2003) and Spanos, Zaralis and Lioukas's (2004) research results show that firm effects are more important than the industry effects in explaining performance - support the resource-based view of the firm. In contrast, Schmalensee (1996) indicates that the industry effects to be more important than the firm effects in explaining performance. Finally, McGahan and Porter (1997), Spanos and Lioukas (2001) conclude that both the firm and industry factors have the same impact on performance. Spanos, Zaralis and Lioukas's (2004) findings show that industry effects are smaller in manufacturing than in service business in explaining performance. McGahan and Porter (1997) argue that earlier studies focused on manufacturing sector, previous research results are biased in favour of the firm effects, and that generalisation about the economy as a whole based on these studies may understate the importance of the industry effects. They also suggest that industry effects are more persistent over time, so it is important to include the industry factors when estimating the effect of firm factors on organisation performance. In summary, since the current empirical findings on the effect of firm and industry factors on

performance are inconclusive, it is important to incorporate both the firm-level and the industry-level variables.

In theory and practice, the relationships are not strictly casual in one direction; there are also feedback loops - from performance to conduct, and to industry structure(environment)(Scherer,1996; Farjoun,2002). However, their assertions lack of strong empirical evidence. Hence, this study is an attempt to research strategic marketing management of property product. If practitioners are to benefit from the work of marketing scholars, research must explain current process and develop a framework for managerial decision making and future research efforts(Leeflang and Wittink,2000). The study presents such a framework, one which addresses the dynamic relationship among marketing environment, strategy and performance by integrating IO, RSV and PIMS paradigm perspective. The usefulness of dynamic model remains greatly unexplored, despite general agreement regarding the critical nature of dynamic as a marketing strategy model.

The relationship among marketing environment, strategy and performance has been described in many disciplines, including industrial organisation(IO), resource based view(RBV) and PIMS paradigm in the marketing and strategy literature. Each theory has approached this relationship from a different perspective. The research proposes an organisation-environment-strategy-performance (OESP) conceptual framework which will be organised into a testable model based on theoretical consideration, linking the marketing environment, strategy and performance construct. The chapter also defines and discusses model construct and the selection, definition and operationalisation of variables in the study.

3.11.The Development of Research Hypotheses

In the following section, the performance effects of internal and external environment characteristics and marketing strategies are examined. Second, the effects of marketing environment, past performance on marketing strategy decision are assessed. Third, the feedback effects of past performance and external environment on internal marketing environment are investigated. Finally, the difference of performance and

the difference of marketing strategy adoption are assessed by capturing dummy variables.

3.11.1. Effects on Marketing Performance

All else equal, the higher profit potential of high-growth markets, high speculative buying and high supplier power should make these markets more attractive to property marketing businesses. More businesses might leave low- or no-growth markets to enter high-growth markets (assuming there are no significant barriers to entry). The corresponding effect would be that the combined market share of competing businesses in the high-growth markets would be dispersed over a larger number of competitors(Szymanski, Bharadwaj and Varadarajan,1993). Consequently, It was expect to find an inverse relationship between market attractiveness and sales.

Whereas operating in high-attractiveness markets may be inconsistent with having high sales. The net effect of these cost reductions, rising profit margins, and rising sales that often characterize high-growth markets seems to be increased profits (Buzzell and Gale 1987). Market attractiveness can be characterised as more market growth rate, higher levels of demand per transaction and customers, higher degree of speculative buying and higher level of supplier power, as well as higher sales and profitability in the property market. The effects of market attractiveness seem to increase profits and sales(Buzzell and Gale,1987). Markets experiencing high rates of growth can be characterised as having high gross profit margins, high marketing costs, rising productivity, increased investment to keep pace with growth(Aaker and Day,1986; Gatignon, Weitz and Bansal,1990). Sales and profits tend to be higher in a market with high market attractiveness and be lower in declining markets, and the research hypothesis is to formulated as:

H1a: Market attractiveness positively affects business unit performance.

The greater the technological change in a market, the more diverse will be the opportunities to create value for buyers (Narver and Slater,1990). However, technological change pressure may be substantial and in the short term may produce negative profits and sales. Narver and Slater(1990) also hypothesise a negative relationship between short term technological change and profitability. Therefore, the research hypothesis will be formulated as:

H1b: Technological change positively affects business unit performance.

Organisations including firms or SBUs in an industry with high competitive concentration tend to be less profitable than those in industries with low concentration(Scherer,1970). The competition within an industry may also influence the performance of an organisation(White and Hammermesh,1981; Barney,1986). Research evidence shows that firms with low experience of competition were found to performance better. Scherer(1970) reviewed industrial organisations in concentration and profitability, and with one exception, all of the studies indicated a positive link between industry concentration and performance. Furthermore, with many competitors in the marketplace, competitive prices are driven down to equilibrium prices. With low price competition and fewer competitors can dictate competitive conditions and performance better.

The structure-conduct/strategy-performance (SCP/SSP) paradigm, for example, posits that industry structure variables (e.g., concentration) influence a business's conduct (strategy) and eventually impact on its financial performance (Bain 1951; 1956). Embedded in this SCP/SSP perspective is the view that businesses attempt to control the output in the market through the exercise of monopoly power or colluding with other businesses to drive up prices and profit. Barriers to entry, a prime determinant of the boundaries and rules of the competitive arena, influence the strategic options available, and influence how well the business units performance(Burke,1984). Though the question of whether the association between competitive intensity and profitability is attributable to the exercise of market power by incumbent businesses or efficiency differences among businesses (Demetz 1973; Gale and Branch 1982;

Ravenscraft 1983; Smirlock, Gilligan, and Marshall 1984) is a point of controversy, both viewpoints imply a negative relationship between competitive intensity and profits. Therefore, a negative relationship between competitive intensity and organisational performance is proposed. Therefore, the following hypothesis is proposed:

H1c: Competitive intensity negatively affects business unit performance.

In marketing, a major stream of research has studied the effect of market orientation on firm performance(Kohli and Jaworski,1990; Narver and Slater,1990). Market orientation(MO) has been defined as the implementation of the marketing concept philosophy(Houston,1986), and can be considered a culture orientation(Slater and Narver,1995). In general, the MO literature has found that a market-oriented culture can be an important determinant of business performance and market-oriented firms can better satisfy customers and perform at higher levels of business performance than others(Jaworski and Kohli,1990; Greenley, 1995a,1995b).

The market orientation explanation suggests that firms with a better understanding of what the customer's wants and needs and what the competitor's strength and weakness are more successful. Narver and Slater(1990) argue that " the desire to create superior value for customers and attain strategic competitive advantage drives business to create and maintain the culture that will produce the necessary behaviours. The view is consistent with Fiol(1991), who indicates that organisational culture can be a source of sustainable competitive advantage and superior performance, when it provides a basis for value-creating activities and is scarce among different competitors(Barney,1986b). Similarly, Kohli and Jaworski(1990) indicate that market orientation provides a unifying focus for the efforts and projects of individuals and departments within an organisation, thereby leading to superior performance.

Barney(1986b) and Fiol(1991) discuss performance outcomes of organisational culture with a theoretical orientation. Barney (1986) argues that only a valuable, rare, and imperfectly imitable culture of a firm can be a source of sustained competitive advantage. Their research results indicate that firms with a strong

culture that emphasises customer orientation and competitor orientation have higher long-term performance. With respect to the specific domain of market orientation, several empirical studies reveal positive and significant correlation links between market orientation and different performance measures (Jaworski and Kohli,1993; Narver and Slater,1990; Slater and Narver,1994; Matsuno and Mentzer, 2000; Sandvik and Sandvik, 2003; Tse et al, 2003; Lui et al, 2003).

Organisations that are market orientated generate a number of benefits for their customers, which could lead to increase sales and higher profits. Specifically, a market-oriented organisation is better able to respond to customers' current and future needs and better satisfy customers by creating superior value for them(Kohli and Jaworski,1990; Narver and Slater,1990). Additionally, a market orientated organisation is able to respond to competitive actions, examines competitors' strengths and weaknesses and shares competitors' information(Webster,1990; Narver and Slater,1990). Then, the following hypothesis is proposed:

H1d: Market orientation positively affects business unit performance.

The importance of innovative and unique products offering to the existing property marketing organisations can not be overlooked as innovative and unique products offering increased sales, profits and competitive strength for most SBUs. Firms have more innovative products will outperform their competitors (Demsetz, 1973). There is support for a positive and direct effect on performance by product advantage (Gatignon and Xuereb,1997). Therefore, a positive relationship between product advantage and performance within all type of property firms is expected. The hypothesis is formulated as follows:

H1e: Product advantage positively affects business unit performance.

Input-based competencies refer to the availability of resources for pursuing strategic actions. Firms commit more resources to internalised resources, those owned by the firms, or resources widely available on the open market, as well as the attractiveness to other firms of providing resources that are valuable and imitable(Barney, 1991;

Wernerfelt,1984). The resource based view within an internal environment focus emphasised the role of resource commitment as sources of competitive advantage and superior performance.

In this study a firm's resource commitment to marketing is offered as a construct which incorporate the amount of planning, financial and human resources that the firm allocates to the marketing activity(Cavusgil and Zou,1994), adequate level of people, time, and money allocated to the pursuit of the marketing strategy(Day,1986; Ramanujam, Venkatraman and Camillus,1986) and the amount of exercising considerable efforts(Porter et al, 1974) to support the firm's marketing objectives. There is little empirical research into the effect of resource commitment on firm performance (Menon et al,1999)in the marketing literature. However, the research assumes that allocating high levels of resources will be related positively to marketing performance. The hypothesis is formulated as follows:

H1f: Resource commitment positively affects business unit performance.

Marketing for a broader product and market with corresponding low volume of sales for each item in the product line results in higher units costs, mainly through increases in overhead and labour costs (Hayes and Wheelwright,1984). In the property market the increased expenses can result from: (1) increase in the complexity of operations(Lubben,1988), (2) more diverse process flows(Banker, Datar and Kekre,1988; Karmarkar,1987), (3) increases in the monitoring of operations, (4) more resources required for scheduling, coordination and control (Kekre and Sreenivasan,1990). All these factors would have a negative effect on profits.

The net effect of offering a broad line of products on sales is expected to be positive for several reasons. A broad product line can reduce the chances of market share erosion from consumers' variety-seeking behaviour(Szymanski, Bharadwaj and Varadarajan,1993). A broad product line can also minimize market share erosion by acting as an entry barrier such as closing alternative product forms (Johnson and Kaplan,1987), and it may be preferred by buyers whose needs change with time by

lowering their purchase risks and transaction costs because they would be familiar with the general characteristics of the business and its offerings(Szymanski, Bharadwaj and Varadarajan,1993).

However, a broader product and market scope strategies could have a positive effect on profit and sales if there is excess capability in the system or the possibility of economies of scope exist. For example, the firm may be able to share marketing programmes to reduce the costs of marketing the new products in the line, as well as reducing the costs of selling each of the existing products in that line. Accordingly, the modularization benefits of producing a broad line could allow the business to achieve product differentiation while using common parts across products in the line to help reduce costs (Hayes, Wheelwright, and Clark 1988). Therefore, the research formulated the following hypothesis.

H1g: The level of product market scope strategies positively affects business unit performance.

Higher product quality could require the use of more expensive component and increased sales force spending to support higher levels of customer service(Phillips, Chang and Buzzell,1983). Higher product quality could necessitate higher advertising and promotion expenditure to convey a quality position to customers(Farris and Reibstein,1979; Phillips, Chang and Buzzell,1983). When higher product quality is defined as superior more expensive features, high quality products could be more expensive to market. Unless the increased costs can be passed onto customers, profit margins might be squeezed and quality and profit would be inversely related(Szymanski, Bharadwaj and Varadarajan,1993).

However, consumers may be willing to pay a premium for better quality goods and services (Buzzell and Gale 1987). A strategy of higher quality might lower consumer sensitivity to price, thereby making it possible to charge higher prices without harming sales(Buzzell and Gale,1987). Higher product quality could also protect the business from competitive forces(such as bargaining power of buyers) that

reduce price-cost margins, superior product quality could also reduce service costs(such as warranty and liability costs)(Gavin,1988). Furthermore, PIMS data base studies indicates that the relative quality of the products or services is the most important factors affecting SBU performance in the long run(Kerin, Mahajan and Varadarajan,1990). It has been suggested that higher quality product leads to stronger customer loyalty, more repeat purchases, less vulnerability from price wars and ability to command premium prices without reducing costs(Kerin, Mahajan and Varadarajan,1990). These factors may generate higher profits for the business.

A positive relationship of relative price and performance can exist when product quality cannot be assessed a priori(Monroe and Krisnan,1984). However, the demand curve is decreasing and businesses are operating in the inelastic portion of their demand curves, marginal revenues are negative and total revenues would be declining with relative price increase (Henderson and Quandt,1980). Therefore, the research hypothesis will be developed as follows:

H_{1h}: The level of product positioning positively affects business unit performance.

Economic theory suggests that consumers are rational and reasonably informed, there is positive association between high level of discount pricing strategy and sales. Therefore, reducing prices can increase sales. The rationale for pricing strategies such as penetration pricing, discount pricing and experience curve pricing can be regarded as grounded in the perceived inverse relationship between price and quantity demand. The possibility of there being a positive relationship between price and sales when higher prices reflect greater prestige of ownership and/or superior quality cannot be completely overlooked (Monroe and Krishnan 1984).

Hence establishing the sign of the relationship between discount pricing strategy and sales is best left as an empirical issue. The sign of the relationship between discount pricing strategy and profit would depend on the shape of the demand curve (monotonically decreasing or monotonically increasing). When the demand curve is monotonically decreasing, the relationship between price and profit would also

depend on the point along the demand curve at which the business is operating(Szymanski, Bharadwaj and Varadarajan,1993). In the inelastic portion of a monotonically decreasing demand curve, total revenues decline with increases in price, whereas in the elastic portion of the demand curve, total revenues more than offset the lost sales from charging higher prices up to the point where the elasticity of demand equals one (Henderson and Quandt 1980).

H1i: The level of discount pricing positively affects business unit performance.

All else equal, expenditures on advertising, sales promotion (Assmus, Farley, and Lehmann 1984; Tellis et al,2000), and the sales force (Anderson,1987) are conducive to increased sales and profits in the previous marketing models. Expenditures on these marketing communication elements can increase customer awareness, facilitate the formation of positive attitudes and behavioural intentions among prospective consumers, and ultimately increase sales for the business(Szymanski, Bharadwaj and Varadarajan,1993). The research adopted the perspective that, through alliances, strategic resources may extend beyond and boundaries of the firm. This suggests a network-centric view from which to explain performance. There has been comparably less research in the area. Recent research suggests that firms build larger alliane networks(Baum and Calabrese,2000) enjoy higher performance.

The impact of increased marketing communication expenditures on profit, however, is less clear. The sign of the effect would depend on whether the change in sales more than offsets, exactly offsets, or less than offsets the change in expenditures. All else equal, the lower the expenditure incurred in realizing a dollar of sales, the higher a business's profits would be(Szymanski, Bharadwaj and Varadarajan,1993). However, marketing communication expenditures and profits would not demonstrate a positive relationship with profits when the increased sales from spending more on communication elements just offsets or fails to offset the reduction in profit margins that occur when the business spends more. The nature of the underlying relationship is further confounded by the degree to which the scale economies associated with increased expenditures on marketing communications and the scope economies that

result from sharing marketing costs with other businesses in the firm's portfolio are captured by the respective business unit(Szymanski, Bharadwaj and Varadarajan,1993).

In sum, performance is determined by the co-alignment between marketing strategy and environment factors of the firm. Generally, it is general consensus that marketing investments or marketing efforts have positive impact on the marketing performance. However, a few studies that explored marketing strategy -performance relationship have produced mix results. Surprisingly, some studies find that selected marketing strategy decisions have a negative influence on the performance whereas other marketing strategy decision have a positive influence on the performance. Relevant research have been done in the international marketing, marketing and management literature (Claycomb et al, 2000; Szymanski et al,1993; Morgan et al, 2000;Wang and Kelvin, 2000; Amine and Cavusgil, 2000; Fraser and Hite, 1990; Speed and Smith, 1991). This lead to the following hypothesis:

H1j: The level of marketing communication programme expenditures and intensity positively affects business unit performance.

3.11.2. Effects on Marketing Strategy

In this section, the research develops a set of hypotheses regarding the antecedents and feedback effects of marketing mix strategy decision. Dess and Beard(1984) indicated that the industry is an appropriate level to consider such actions and characteristics using three dimensions: munificence, dynamism, and complexity. Because less favourable operating environments have been argued to constrain the potential range of actions that firms can take(Hrebiniak and Joyce,1985), it is clear that environmental conditions play an important role in shaping a firm's management decision what action to take. Therefore, strategy selection are set through consideration both the external market environment and the internal market-focused resources available to the organisation(Hooley et al,2001). Most contingency

literature suggests that the environment influences organisational strategy(Porter,1980).

The degree of marketing strategy decision is contingent on the characteristics of environment factors (Narver and Slater, 1990; Jaworski and Kohli, 1993; Slater and Narver, 1994; Atuathene-Gima, 1995). It is posited that the degree of marketing strategies decision is influenced negatively or positively by external and internal organisation environment forces. Conduct/strategy, in effect, is viewed as merely reflecting the industry environment in which a business operates (Varadarajan and Yadav,2002). A compete firm knows the environment, market demand and the degree of competition and is more likely to align the marketing strategy to property market. Hatten at al.(1978) stated that organisations within the same industry have different resource capabilities, which will lead them to make marketing strategies decision. Competition increases the likelihood of high level of marketing programmes decision. The competitive conditions which a firm faces will determine the firm's strategic opportunities(Caves,1980; Porter,1981).

In the property industry barriers to entry for potential new firms might be rather low. Munificent environments present growth opportunities(Castrogiovanni,1991; Dess and Beard,1984). In highly munificent environments (high demand potential and low competitive intensity), there is no need to compete because there are plenty of resources for any existing competitors. Only when resources become scarce do firms need to compete aggressively with one another to obtain the resources need to survive. However, it is unlikely that such freedom from competition would exist in such a sector. Ansoff(1986) suggested that market growth in munificent environments enables firms to either strengthen their position in a given market or to expand their scope of operations. Therefore, a set of hypotheses are tested :

H2a: Market attractiveness positively affects (1) product-market scope strategy (2) product positioning (3) discount pricing strategy (4) marketing communication programme decision.

In more rapidly changing markets, especially where technology changing, higher quality product positions might be adopted(Hooley et al,1992) and lower marketing communication expenditures might be spent. It is clear that technological boom is still in its infancy since 1996 in Taiwan property market. However, it is not clear how effects technological advance might impact on marketing strategies and performance. Therefore, a set of hypotheses are developed:

H2b: Technical change pressure positively affects (1) product-market scope strategy (2) product positioning (3) discount pricing strategy (4) marketing communication programme decision.

High levels of competitive intensity afford the customer a multitude of choices and compel businesses to find means of differentiating their products (Menon et al,1999) and of increasing marketing communication expenditures. Under low competitive intensity environment an organisation will be less likely to be motivated to increase marketing intensity. The magnitude of competitive intensity in an industry has a direct bearing on development of an organisation's strategy.

In the study competition in the property market is defined as a concept that covers three dimensions: (1) number of competitors (2) price competitiveness (3) competitive concentration. Any manager who is committed to developing a suitable marketing strategy needs to identify the key competitors(Clark and Montgomery, 1999; Day and Wensley, 1988) and make an analysis of prices(Cavusgil and Zou, 1994) and the extent of competitive concentration in the served market. Marketing managers have to pay attention to the impact of competition on marketing decision and strategies implementation(Weitz, 1985). Companies under more competitive environments might be under constant pressure to increase marketing communication expenditure and product-market scope.

Competition increases the likelihood of high level of marketing communication expenditures. The competitive conditions facing a firm will determine the firm's strategic opportunities (Caves,1980; Porter,1981). During the periods of low market concentration, expansion of scope might also include substitutors through expansion

into new markets and products. This action has been linked to an increase in perceived entry barriers and resulting performance. Other things being equal, high entry barriers should be associated with strategic thrusts of build and hold(Burke,1984).

As emphasised by Weitz(1985), marketing managers have to pay great attention to the impact of competition on marketing decisions. A direct comparison with other competitors will allow managers to assess their own firm's competitive advantage(Day, 1984; Day and Wensley,1988) and to use a reference for developing competitive marketing strategies to the served markets. The more intense the competition in the property market, the more the company will tend to make marketing elements spending. Hence, this lead us to test the following set of hypotheses:

H2c: Competitive intensity positively affects (1) product-market scope strategy (2) product positioning (3) discount pricing strategy (4) marketing communication programme decision.

There is a long history of research in marketing and economics on the competitive strategy implications of the characteristics of a product(Varadarajan and Yadav,2002). The marketing management literature, innovation and new products provides valuable insights into the linkage between product characteristics and marketing strategy. Seminal works highlighting the differences between tangible and intangible product attributes(Levitt,1981) provides valuable insights into the linkage between product characteristics and marketing strategies. However, how the product advantage affect the marketing strategy decision need further empirical evidence. A set of hypotheses are developed as follows:

H2d: The level of product advantage positively affects 1) product-market scope strategy (2) product positioning (3) discount pricing strategy (4) marketing communication programme decision.

A firm which is closely focused on delivering value to its customers is likely to make decisions in a different way (Doyle and Hooley,1992). The culture of an organisation affect strategic decision(Webster,1992). Deshpande and Webster(1989) defines as market orientation as a distinct organisational culture and put the customer in the centre of the firm's thinking about strategy and operation. The degree of orientation to different stakeholders in the business is likely to affect strategy choice and implementation(Greenley and Foxall,1997,1998).

In general, market orientation and strategic orientation are closely linked. Miles and Snow(1978) and Porter(1980,1985) strategic typologies has concluded that organisations with high market orientations tend to be more strategically proactive than their competitors with low market orientations(Walker and Ruekert,1987; McDaniel and Kolari,1987; Mckee, Varadarajan and Pride,1989). Slater and Zwirlein(1992) examined these associations by testing the relationships of market orientation and specific marketing strategy elements by surveying the forest industry and concluded that market orientation is related to differentiation strategies, focus strategies and market information strategies. Thus, market orientation appears to provide a strong explanation for marketing strategy. A set of hypotheses are developed as follows:

H2e: Market orientation positively affects 1) product-market scope strategy (2) product positioning (3) discount pricing strategy (4) marketing communication programme decision.

Lado et al.(1997) suggest that retaining a balance among investments in resources from each of these resources will enable the firm to be more flexible and able to maintain competitive strategies. More resource commitment might be particularly geared toward increase the input of marketing resources. Therefore, it is expected that more resource commitment will enable the strategic action. Smith and Alcorn(1991) operationalised organisational slack as both unabsorbed and absorbed slack. Absorbed slack is an indicator of the amount resource committed to specific activities (such as marketing activities), while unabsorbed slack is an indicator of firm liquidity and resources that can be transferred quickly to other uses. Given that

resource commitment represents those resources invested in ongoing marketing activities, it is possible that firms with high levels of resource commitment may increase deploying marketing resources in an effort to compete with rivals.

Research suggests that the less resource committed managers tend to be less participative(Angle and Perry,1981). On the other hand, because of their devotion to the organisation, highly committed managers are more willing to accept the organisation's solicitations for extra work as well as more demanding activities(Randall,1987). Consequently, managerial commitment facilitates organisational adaptation to the contingencies (Angle and Perry,1981). The more resource committed firms usually allocate more human and financial resources to marketing activity. Some extra resources enable companies to improve the depth of planning procedure that will allow managers to make more marketing spending to the property marketing business. By applying this rationale to the study, the following hypotheses are proposed :

H2f: Resource commitment positively affects 1) product-market scope strategy (2) product positioning (3) discount pricing strategy (4) marketing communication programme decision.

Past performance of the firm has been identified as both a source for strategic action and as a barrier to strategic action (Miller and Chen,1994,1996). Miller and Chen(1996) argued that strong performance in the prior period makes a firm's management complacent and unlikely to initiate any actions, while poor performance in the prior period may provide organisational learning that enable top management to recognise the usefulness of marketing deployment strategies recently undertaken. Good performance will enable management staff to recognise to replicate appropriate settings(Cohen and Bacdayan,1994; Smith and Zeithaml,1996). However, because of the need for good performance firms to deploy more marketing resources as a means of increasing sales growth and profitability, it is logical to expect that past performance might be positively related to marketing resource deployment strategies.

Little empirical research has examined performance as an independent variable in marketing and strategy literature. However, firms are under pressure to react to past performance results. If a poor performance firm or SBU is under considerable pressure to change marketing strategies and programmes, managers from some poor performance firms will tend to be more critical about the previous actions (Fredrickson, 1985; Moss et al, 2003). The performance and environment pressure will encourage them to rethink their strategies and develop more comprehensive and rational strategic decisions than managers faced with a better performance (Mintzberg, Raisinghani, Theoret, 1996). Poor performance firm might put pressures on marketing managers and make them more likely to search widely information and conduct an in-depth analysis of the surrounding environments (Audia, Locke and Smith, 2000; Ashford et al, 2003). By contrast, the literature suggests that a good performance will make effortless strategic or marketing decision (Bourgeois, 1980).

Similarly, it is hypothesised that the degree of product-market and marketing programme decision may be affected positively by prior performance. In the marketing literature firm's capabilities, constraints and budgets profoundly influence the choice of marketing programmes and ability to implement the chosen strategy (Porter, 1980). Internal and external environment pose both opportunities and threats (Porter, 1985). Marketing programmes should be implemented or invested in such a way to fit the environment (Hofer, 1985; Zeithaml, 1984) as well as scanning the performance. Although this phenomenon has been discussed to some extent by strategy theorists, no empirical research has examined performance as an independent variable which affect marketing mix decision. A set of hypotheses is developed into the following statement:

H2g: Past performance positively affects 1) product-market scope strategy (2) product positioning (3) discount pricing strategy (4) marketing communication programme decision.

3.11.3. Effects on Internal Environment

Based on the above argument, the relationships are not strictly casual from environment to performance in one direction; there may be feedback loops (Leeflang and Wittink, 2000)- from marketing performance and strategies to environment. Most previous study for ease of modelling, the relationships are assumed to be unidirectional, from environment to strategy and finally to performance. Additionally, since the strategy-structure sequence(Day and Montgomery, 1994) and the learning sequence are essentially reciprocal and changing over time, the question is “ which come first ?”. The question cannot be answered in previous studies.

The IO SCP framework and resource based theory posit non-recursive, that is, reciprocal, feedback effects from performance to strategy and to the environment. The theories postulate that managers not only react to the environment pressures but also engage in actively managing and changing it to sustain their advantage. However, such non-recursive relationships could be tested due to the cross-sectional nature of the data. In fact, environment uncertain is hard to manage and influence. Although statistical technique can be employed to measure feedback effect on environment, the study should examine the feedback loop carefully. Based on the face validity and reliability, the study assumed that only internal firm organisation environment including market orientation and resource commitment is influenced by the external environment and prior performance.

Market orientation is conceptualised as a long-term business philosophy of meeting the needs of current and future customers and developing loyal customers over time. Adopting a market orientation is a potential resource for establishing a comparative advantage over major competitors (Hunt and Morgan,1995). Bennett and Cooper(1981) and Houston(1986) suggest that the importance of market orientation varies the environment context. Shrivasta(1985) suggest that culture shapes strategy. Although neither Jaworski and Kohli(1993) nor Slater and Narver(1994) found significant moderating influences of environmental characteristics on the market orientation-performance link, there is still the possibility that market environment may significantly affect the level of market orientation(Pelham and Wilson,1996).

The environment context of an organisation is likely to influence its level of market

orientation (Jaworski and Kohli,1993). Appiah-Adu(1998) suggests that a firm has good performance with minimal market-oriented efforts in transition economies characterised by strong demand and market growth. On the other hand, if the market demand potential is weak, customers are expected to emphasise value and firms must monitor and respond to customer needs and competitor actions to be competitive(Okoroafo and Kotabe,1993). Therefore, the testable hypothesis is as follows :

H3a: Market attractiveness negatively affects the level of market orientation.

A market orientation is a means to develop competitive advantage, because it enables an organisation to understand customer needs and offer products and services that meet those needs (Jaworski and Kohli,1993). In general, organisations use technological orientation as an alternative means to market orientation to build sustainable competitive advantage (Kohli and Jaworski,1990). However, Jaworski and Kohli(1993) suggest that organisations with high technical change rate may be able to obtain a competitive advantage through technological or product innovation, thereby diminishing the importance of a market orientation. By contrast, organisations that work with stable technological environment or stable customers' preferences must rely on market orientation to a greater extent (Bennett and Cooper,1981; Houston,1986; Kaldor,1971; Tauber,1974). The discussion suggests that :

H3b: Technical change negatively affects the level of market orientation.

Organisations in more competitive environments may be expected to be more market –oriented(Lusch and Laczniak,1987). As competitive intensity increases, so does a firm's need to be market orientated(Houston,1986). Therefore, in highly competitive environments, greater emphasis on market orientation is required for improving performance(Kohli and Jaworski,1990). Greater competition leads to a variety of choices for customers and a firm must identify customers' changing preferences and respond accordingly (Appiah-Adu,1998). However, under high

competitive environment, customers have many alternative options to satisfy their needs and wants and an organisation with less market oriented is likely to lose customers to competition. The implication is that the benefits offered by a market orientation are greater for firms operating in a highly competitive environment (Appiah-Adu,1998). Lusch and Iaczniak (1987) suggest that organisations in more competitive environments may be influenced to be more responsive to the changing needs of the marketplace, and to be more market orientated. Similarly, firms in highly competitive environments focus more on understanding competitors, which is a key aspect of market orientation. The formal testable hypothesis is:

H3c: Competitive intensity positively affects the level of market orientation.

It is clear that performance also is meant to have feedback on the environment in the sense that the average and varied performance of the firms in the last period shape the next period's business environment(Dickson, Farris and Verbeke,2001). The performance outcomes will affect both the resource base of the firm and the environment in which it operates(Hooley et al,2001). A performance superior to competitors is likely to result in enhanced market orientation culture. However, The feedback loops presented in the model need further conceptual and empirical research(Hooley et al, 2001). Therefore , the hypothesis is tested as follows :

H3d: Past performance positively affects the level of market orientation.

High attractiveness markets are often characterized by relatively higher gross profit margins, higher marketing costs and product prices (that rise at a rate below costs), rising productivity, increased investment to keep pace with growth, low or negative cash flow, more new customers, higher levels of demand per customer, and a higher probability that the product will meet some customers' needs(Szymanski, Bharadwaj and Varadarajan,1993). When market was monitored as more growth rate, SBU might have higher level of demand and higher level of supplier power. SBU with high market attractiveness tends to allocate adequate level of people, time, and money and exercise considerable efforts to marketing activities. The research assumes that

market attractiveness will affect resource commitment positively. Therefore, the testable hypothesis is developed as follows :

H4a: Market attractiveness positively affects the level of resource commitment.

Managers of SBUs operating in less competitive environments tend to feel less threatened and more confident (Dutton, 1993). This situation is likely to make the firm operate as a closed system and lose its ability to react and identify to the various issues that may arise from the environment. In the Taiwan property market, firms operating in highly competitive environments are under pressure to be committed to marketing activity. The existing need to monitor the environment and differentiate the offerings across markets makes the firms more resource committed to their marketing operations. This leads us to the following hypothesis :

H4b: Competitive intensity positively affects the level of resource commitment.

A firm's commitment to marketing is expected to increase when managers have achieved past performance goals. In the exporting literature, export commitment is a function of resource availability (Cavusgil and Nevin, 1981). When the export operations perform well, the various internal groups (such as top management, employees from other departments and shareholders), investors and credit institutions are more likely to support the exporting activity within the firm. Accordingly, the marketing managers of poor performance might have fewer resources available and less support from the top management, and consequently the SBUs might become less committed to the marketing activity. Past performance is likely to shape the degree of resource commitment to marketing programmes. To the best of our knowledge, no study in the marketing literature has empirically tested this relationship. Hence, it is important to examine whether past performance levels are of large, little or no consequence to the firm's resource commitment. This leads us to the following hypothesis:

H4c: The better the performance in the previous year, the more the firm's resource commitment is.

3.11.4. Related to Individual Differences Issues

Organisational size, company type and headquarters location may also affect how actively engaged a firm is in competitive action and determine the performance difference. Size confers institutional legitimacy on the organisation(Baum,1996) and may enable the firm to pursue a broader variety of strategies by other players. Along with greater legitimacy, size also confers greater resource allocation and potentially a larger playing field upon which to guard the firm's position. As a result, a larger firm may be expected to be more heavily involved in competitive strategies.

On the other hand, different company type and headquarters location have been found to become complacent with previously developed plans of action, and thereby focusing too narrowly on a limited scope of activities(Miller,1993). Furthermore, larger firms' complacency may also reduce their interest in new types of organisational learning, by reducing the grafting of new members with more market oriented culture. As a result, large organisations become caught up in the way that they have enacted activities in the past as a guide to future behaviour.

Recently, the practice of examining marketing performance and strategies across all environment(the homogeneity hypothesis) has been questionable. If the marketing environment or strategies are not homogeneous, then results from pooling data across company location, diverse industry representation and company size have questionable validity. Also, one must question whether the same marketing strategies are of equal appropriateness in different competitive environment. To examine this questions, the research try to identify different respondent characteristics and then examine the performance and strategies difference within and across the various marketing environment. . Thus, the specific research question is :

What differences exist in marketing managers' perceptions regarding marketing strategies and performance based on each of the following characteristics of the property firms:city in which company headquarters is located,company type

(construction investment, brokerage and advertising) and company size. The model depicted in Figure 3.2. is based on the above hypotheses and illustrates these marketing environmental, strategy and performance dimensions in a theoretical network.

Figure 3.2.

Effects on Performance

Performance Model

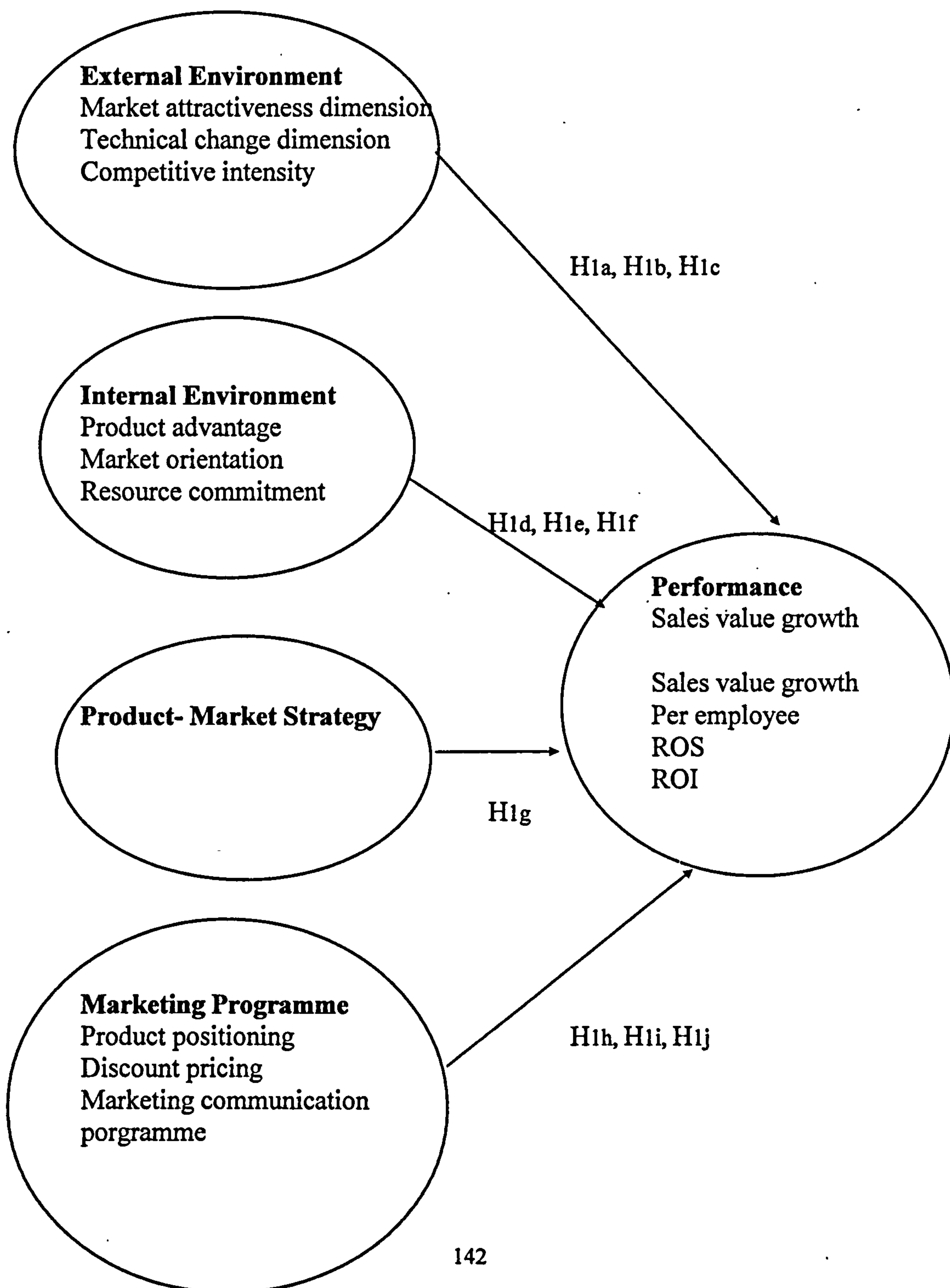


Figure 3.2. (Continued)

Marketing Strategy Model

Effects on Marketing Strategy

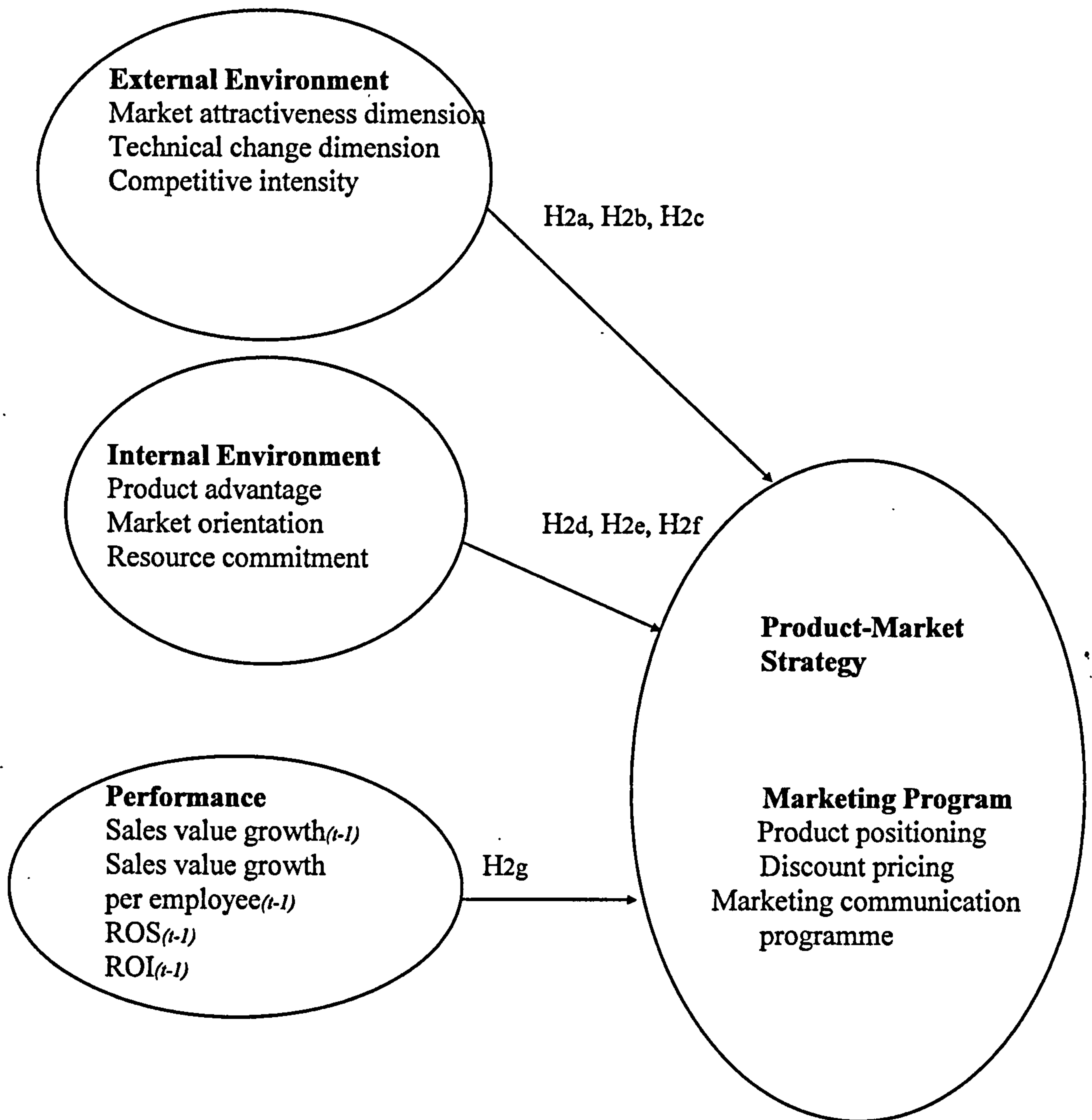
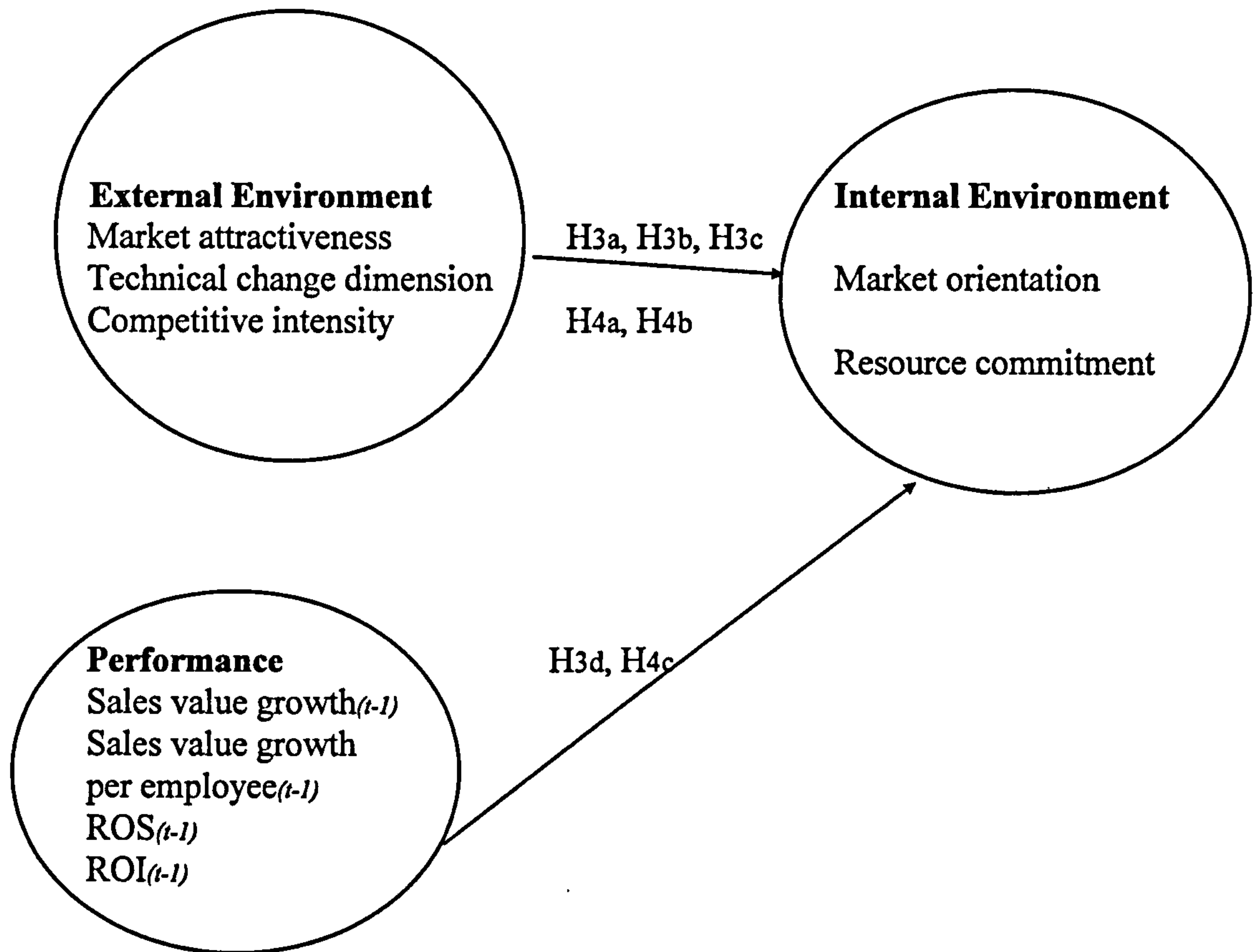


Figure 3.2. (Continued)

Market Orientation and Resource Commitment Model

Effects on Internal Environment



This section has developed hypotheses relating to the effect of marketing environment and strategies on marketing performance. Furthermore, hypotheses also were presented explaining the effect on marketing strategies of marketing environment and prior period of marketing performance. The final set of hypotheses related external environmental and prior performance to internal environmental variables.

3.12. Selection and Definition of the Research Variables

As discussed in the last section, the proposed model of property marketing has five main constructs. There are external environment, internal environment, product-market strategy, marketing programme and performance. The five constructs are rich and complex concepts embodying multiple facets of property marketing organisations and market. To adequately tap the broad domain of these constructs, a large number of items are used and selected to measure each construct. The section discusses the selection of research variables, the model constructs, and the multiple indicators used to measure these constructs.

Lusch and Laczniak(1989) suggest that researchers direct their efforts toward developing a thorough definition, specifying the domain, explicating the dimensionality, addressing measurement issues, and examining substantive relationships for each construct. The primary purpose of this research was to examine the relationships among three theoretical constructs: marketing environment, marketing strategy and marketing performance. The distinction between external, internal environmental and strategic variables is based on the degree of managerial control. External environmental variables are relatively uncontrollable, strategic variables are relatively controllable, and internal environment variables fall somewhere in between.

3.12. 1. Marketing Environment Variables

The environment variables will be identified on the basis of three criteria. First, the selection and classification of environment variables were based on both theoretical consideration and previous studies, which were reviewed by the former section. Second, these environment variables have been identified in the previous literature as potential influence on the marketing strategies and performance in the property firms. Third, all environment variables must have associated measures in the property marketing business.

The concept of the environment in the proposed organisation-environment-strategy-performance (OESP) framework is operationalised with two constructs : internal and external environment. Although the marketing literature offers several useful

frameworks and models to investigate the issues in marketing, the property marketing environment is best conceptualised in terms of external and internal organisation forces and pressures confronting by the SBUs. There are several reasons why the internal and external environment framework is a useful tool for studying the environmental issues and forces that impact on the marketing strategy and ultimately the performance of property firms.

First, marketing and strategy literature suggests that the external and internal forces influence the marketing strategy of marketing strategies implementation (Dwyer and Welsh, 1985; Cavusgil and Zou, 1994; Jaworski and Kohli, 1993; Pelham and Wilson, 1996; Mavondo, 1999). Second, it is a consensus that property marketing implementation and performance is sensitive to the external environment, but the performance impact of internal environment factors has little attention in previous studies. Third, based on the nature of property marketing activities it is possible to map the property firms and their suppliers, customers, competitors and distributors (local branches) on the external-internal environment framework. Finally, marketing managers has no control and little influence on the internal organisational environment in a property firm.

In sum, due to its ability to link the environmental and organisational factors within a single framework, the external-internal environment framework is a rich and flexible tool for studying the property marketing environment, and its impact on the marketing strategy and performance in these property firms. For this above reason, the business environment forces and pressures in the study are represented with external-internal forces dimensions.

3.12.2. Marketing Strategies Variables

The definition of a marketing strategy construct here is based on three guidelines. First, only those strategy constructs argued by researchers to be closely linked to the property marketing function of an organization are considered. Furthermore, marketing's strategic role at the corporate, business, and individual product (brand) levels is frequently delineated(Cunningham and Robertson,1983; Jain,2000; Wind

and Robertson,1983). Hence, the review focuses on only one” part” of overall organizational strategy. Broader perspectives, such as those of Miller (1985) and Miles and Snow(1978), are excluded from the review. Some studies grounded in these broad perspectives, but confined to only the marketing-related aspects of organizational strategy, are included (such as McDaniel and Kolari,1987).

The extent of marketing strategy construct review is further limited by two additional guidelines. The first guideline, in line with Varadarajan(1999) distinction between content and process strategic roles of marketing, limits consideration to only those constructs concerned with the content of marketing strategy. Content constructs, which deal with patterns of marketing-related decisions, are differentiated from process constructs, which deal with marketing’s decision structure in the process of strategy formulation and implementation. The second guideline is that within this domain of marketing strategy content research, only those constructs argued by researchers to reflect some underlying notion of strategy are treated as marketing strategy constructs. The decision rule for marketing strategy is adopted instead of imposing arbitrary criteria on other researchers as a means of either including or excluding their operationalisation.

Lack of clear definitions for marketing strategy constructs at each distinct organizational level is made more of a problem by the considerable overlap between strategic dimensions associated with each level. Decisions regarding marketing mix elements, for example, have been identified as key dimensions of marketing strategy at the corporate (Lusch and Laczniak,1989), business(Varadarajan,1985), and brand(Carpenter and Lehmann,1985) levels.

In the study marketing strategies variable group incorporates product market strategy, marketing programmes decision because these operational construct will influence the performance of a company in the real estate literature(Richins et al., 1987). To represent the marketing programmes decision and product-market strategy construct in the model in a way that is both theoretically and meaningfully useful, each marketing mix elements will be chosen in similar previous studies examining the relationship among marketing environment, marketing mix and performance.

3.12. 3. Market Performance Variables

Following the intensive literature review, marketing performance is reflected by the four financial indicators of sales growth, sales growth per employee, ROI and ROS. Because the broad and often conflicting indicators is used for measuring business performance, it is important to precisely delineate the domain covered by the performance variables within a given study. The market performance variables were chosen on the basis of previous studies and literature review. The rationale for the selection of these four performance indicators incorporated several factors.

First, the proposed solution to the performance measurement problem is the use of multiple performance measures to reflect different aspects. Significant research strongly suggests that business performance is a multidimensional construct (Venkatraman and Ramanujam, 1986), and it is clear that performance variables may have a multi-dimension view. Ambler and Kokkinaki(1997) have reviewed seven major academic journals which measure marketing success and found that an average of 1.40 measures per article. Similarly, Clark(2000) examines the managerial perceptions of marketing performance by surveying marketing vice-president and indicates that the mean number of perceived performance measures is 2.68. Combining the managerial and academic perspective, performance is seen as multi-dimensional. In conclusion, the study uses multiple performance variables and capture the theoretical concept adequately.

Second, some strategic marketing performance variables such as market share and unit or dollar sales are used to measure performance (Day and Wensley, 1988; Jacobson and Aaker, 1985), but a problem inherent in the measurement of objective and subjective market share is the accuracy of data due to the variety of sources from which the data is typically drawn and the variation in product-market definition. For example, if the sellers market their property to buyers directly, the property managers could not track the situation. Further, there is some significant and large differences in property price. The adoption of sales value market share or sales volume market share is a debatable issue and will result in measurement bias. Additionally, these

are some questions as to whether or not market share and firm performance are truly related(Jacobson, 1988).

Third, some researches establish a performance index to evaluate marketing programmes, but the study avoid the use of a composite measure of performance (such as performance index) since a composite index would discard information if , in some cases, the multiple measures move together and, in other cases, they move apart. Separate measures instead allow us to observe these differences.

Fourth, Clark(2000) suggests that researchers need to account for the measures which managers use frequently. The research objective not only adds the body of knowledge, but also is useful for managerial implication. The research strongly suggests that performance measurement should be available in some business practice. Few property firms use some indicators such as awareness, salience, perceived quality, number of consumer complaints to measure performance. Clark's (2000) research finds that 74% respondents of managers use sales to judge marketing performance. It is clear that sales-related variables should be chosen in the study.

Sales levels measure the ability of the firm to generate revenues in the marketplace regardless of the costs. Strategy research often implicitly focuses on the ability of the firm to be concerned with sales (Porter,1980,1985). Most property firms use sales value rather than sales volume to compare the sales force performance and compensate the agents' commission. Sales growth performance and sales growth per employee are consistent with managers' use and expectations. In the property marketing field marketing efforts need a large amount of cost and time, profitability and sales growth pursuit becomes the common objectives of company for sustaining competitive advantage and maintaining growth in most of property firms, especially in marketing function. In summary, although sales do not guarantee success in term of profits, sales growth is one of observable determinants of profit in the property market. Given fixed cost sold is a plausible indicator of profitability.

Return on investment (pre-tax profit divided by net investment) is described as the key measure of marketing efficiency in the marketing literature(Ruekert, Walker, and

Roering, 1985; Bonoma and Clark,1988). ROI was initially developed by the E.I. Du Pont de Nemours Company and has achieved wide recognition in American industry. Reece and Cool (1978) identified several advantage of ROI: (1) as a ratio of “ normalises” for divisions or companies differences in investment base size, making reasonable comparable, (2) being a percentage-return measurement, it is consistent with how companies measure the cost of capital and (3) it is useful for people outside the company as it can be calculated for the purpose of evaluating the economic performance of a company and for making inter-company performance comparison. As the study is concerned with the performance of individual business unit, as opposed to the overall firm, ROI measure that reflects the corporation’s objectives for the business unit is most appropriate.

In addition, ROS was suggested as a measure of profitability that is preferred to the ROI for strategic business unit because sales figures were found to provide greater accuracy and standardisation than ROI. Sales volume explained the greatest variance in the profit levels. Following the above statement for selection process of performance measure, performance variables are reflectors by four indicators : sales growth, sales growth per employee, ROI and ROS for the purpose of the study.

3.12.4. Definition of the Research Variables

Table 3.3. is a description of the variables used in the analyses. Each variable is defined in the research.

Table 3.3. Definition of the Research Variables

External Environment Variables

Variables	Definition	Reference
The extent of the market growth	The growth rate of perceived served market size	Manu and Sriram(1996); Gardner et al,(2000); Gardner et al(2000); Naver and Slater(1990); Jaworski and Kohli(1993); Slater and Naver(1994); Pelham and Wilson(1996); Gatignon and

		Xuereb(1997);
The extent of buyer power	The extent of which your unit's are able to negotiate lower prices from buyers	Voss and Voss (2000); Naver and Slater(1990); Jaworski and Kohli(1993); Slater and Naver(1994);
The extent of supplier power	The extent of which your unit's is able to negotiate lower prices from your suppliers	Voss and Voss (2000); Naver and Slater(1990); Jaworski and Kohli(1993); Song et al (2002).
The intensity of price competition	The level of price competitive intensity in your served market segment	Cavusgil and Zou(1994); Gardner et al(2000); Pelham and Wilson(1996); Dwyer and Welsh(1996); Voss and Voss (2000); Naver and Slater(1990); Jaworski and Kohli(1993); Atuathene-Gima(1995,1996); Pelham and Wilson(1996); Gatignon and Xuereb(1997); Kondo(2004).
The number of competitors	Approximately how many business units were competing in the served market	Burk(1984); PIMS database
The extent of competitive concentration	The proportion of sales revenue in the SBU's principal served market segment accounted for by the four largest firms, including the subject SBU if appropriate	Shipp and Lamb (1996); Burke(1984); Voss and Voss (2000); Naver and Slater(1990); Jaworski and Kohli(1993);
The threat of substitutes	The extent of the product and service offering has potential competitors or substitute product	Burke(1984); Voss and Voss (2000); Naver and Slater(1990); Jaworski and Kohli(1993); Song et al (2002).
The extent of speculative buying	The extent to which your unit's existing and potential customers have speculative buying	Dwyer and Welsh(1996)
The degree of entry barriers	The unique incremental costs required of a firm to enter and become	Hooley and Lynch(1988); Voss and Voss (2000); Naver and Slater(1990); Jaworski and

	competitively viable in the market	Kohli(1993); Slater and Naver(1994); Song et al (2002).
The degree of technological change	Major technological changes in the property products offered by the business unit or its major competitors, or in methods of production. On other word, the extent to which production/service technology in your served market has changed	Gardner et al(2000); Shipp and Lamb(1996); Dwyer and Welsh; (1985); Hooley and Lynch(1988); Voss and Voss (2000); Naver and Slater(1990); Jaworski and Kohli(1993); Slater and Naver(1994);
The degree of pressures from consumer for new technology demand	Pressure confronted by your business unit from consumer for new technology demand	Gardner et al (2000)

Internal Environment Variables

Variables	Definition	Reference
The relative percentage of innovative product sales	The relative percentage of innovative product sales (new to market within 3 year introduction such as art and theme residential property and others)	Manu and Sriram(1996); Voss and Voss (2000); Gatignon and Xuereb(1997)
Degree of uniqueness of product	Degree of uniqueness or similar of product compared to major competitors	Cavusgil and Zou(1994); Burke(1984); Voss and Voss (2000); Gatignon and Xuereb(1997)
The extent of differentiation of product	The extent to which there are some differences across your property offering compared to major competitors	Manu and Sriram(1996); Voss and Voss (2000); Gatignon and Xuereb(1997)
Market orientation	To collect information about customers' need	Naver and Slater(1990); Jaworski and Kohli(1993); Gatignon and Xuereb(1997)
Market orientation	To survey customer satisfaction	Naver and Slater(1990); Jaworski and Kohli(1993); Gatignon and Xuereb(1997)

Market orientation	The extent of after-sale service	Naver and Slater(1990); Jaworski and Kohli(1993); Gatignon and Xuereb(1997)
Market orientation	Top management discusses competitors' strengths and weaknesses	Naver and Slater(1990); Jaworski and Kohli(1993); Gatignon and Xuereb(1997)
Market orientation	To respond rapidly from competitors' action	Naver and Slater(1990); Jaworski and Kohli(1993); Gatignon and Xuereb(1997)
Market orientation	The extent of salespeople share competitors' information	Naver and Slater(1990); Jaworski and Kohli(1993); Gatignon and Xuereb(1997)
Resource commitment	The extent of top management(or CEO) time spent in strategic marketing planning	Ramanujam, Venkatraman and Camillus(1986); Menon et al(1999)
Resource commitment	The extent of overall right resource(financial, human, physical and time resource) was allocated to strategic marketing planning	Ramanujam, Venkatraman and Camillus(1986); Menon et al(1999)
Resource commitment	The degree of involvement of staff managers in strategic marketing planning	Ramanujam, Venkatraman and Camillus(1986); Menon et al(1999)

Marketing Strategy Variables

Variables	Definition	Reference
Target market segmentation	Market segmentation by some features such as vintage, location, design, size and income group.	Cavusgil and Zou (1994)
Coverage of target market	The scope of geographic area of the SBU 's served market.	Manu and Sriram (1996)
Relative product line sales breadth	Relative to the weighted average of the product line sales compared to major competitors.	Manu and Sriram (1996); Shipp and Lamb(1996); Burke(1984)
Relative product	For each year, estimate the average	Manu and Sriram(1996);Barrett

quality	level of product quality of the business's products relative to the average quality of the major competitors.	et al(2000); Hagerty et al(1988); Ramaswamy et al (1993); Hooley and Beracs(1997); Voss and Voss (2000); Jaworski and Kohli(1993)
Relative price (product positioning)	For each year, estimate the average level of selling prices of the business's products relative to the average price of the major competitors.	Manu and Sriram(1996); Shipp and Lamb(1996); Barrett et al (2000), Hagerty et al(1988); Ramaswamy et al(1993) ; Hooley and Beracs(1997); Voss and Voss (2000)
Discount pricing	Approximately average discount rate between listed(asking) price and actual price in each year.	New development
Relative advertising expenditure	Managerial estimate of advertising expenditures including media, catalogues, exhibits, displays, premium, coupons relative to the major competitors.	Manu and Sriram(1996); Gardner et al(2000); Shipp and Lamb, (1996); Ramaswamy et al (1993)
Relative public relations expenditure	Managerial estimate of public relation expenditures including press conference, media release, other expenses for media relative to the major competitors.	New development
Sales promotion expenses	Expenditures for temporary price reductions, gifts and prizes for promotional purposes as a proportion of product sales.	Gardner et al(2000); Shipp and Lamb(1996); Barrett et al(2000); Hagerty et al(1988); Ramaswamy et al(1993)
Use of web/internet advertising	Managerial estimate of Web/Internet advertising expenditures including web site operation and advertising expenses.	Hoffman(2000); Morgan(1996)
Changes in the number of distribution	Increasing the scope of marketing operation from increasing branches from previous year	Munro(1995)

branch		
Co-marketing alliance	Two or more competitors pool the skills and resources to operate co-marketing programme for advertising purposes.	Bucklin and Sengapat(1993)
Horizontal advertising alliance	Two or more firms whose primary economic commitment is to the same value chain activities pool the skills and resources to operate marketing agreement programmes for advertising purposes.	Vadarajan and Jayachandran(1999)
Vertical advertising alliance	Two or more firms whose primary economic commitment is to adjacent stages of the value chain pool the skills and resources to operate marketing agreement programmes for advertising purposes.	Vadarajan and Jayachandran(1999)
Open house	Open house is “ a marketing programme commonly used by real estate brokers to show residential or commercial property by having it available during particular hours.”	New development
Sales force training	The amount of sales force training including marketing techniques, product information, company mission and property management knowledge	Cavusgil and Zou(1994)
Sales force expenses	Includes compensation and expenses incurred by salesmen, commissions paid to brokers or agents, and cost of sales force administration as a proportion of revenue.	Manu and Sriram(1996); Hagerty et al(1988)
Changes in sales people	Change in the number of sales people	Gardner et al(2000)

Marketing Performance Variables

Variables	Definition	Reference
Sales value growth	The total sales volume growth of the firm compared to previous year. All annual income generated from the provision of marketing goods and services, not including income from interest payments, liquidation of assets and other extraordinary	Cavusgil and Zou(1994); Hagerty et al(1988); Voss and Voss (2000); Pelham and Wilson(1996);
Sales value growth per sales employee	The growth rate of the total dollars of sales is divided by total employees	Cavusgil and Zou(1994); Voss and Voss (2000);
Return on sales (ROS)	Pre-tax profit is divided by the total sales	Cavusgil and Zou(1994); Pelham and Wilson(1996); Slater and Naver(1994);
Return on investment (ROI)	Pre-tax profit is divided by the total investment each year	Cavusgil and Zou(1994); Gardner et al(2000); Pelham and Wilson,1996

3.13.Measurement Issues of the Research Variables

Measurement issues are important for the marketing strategy field today. A review of previous approaches to marketing strategy measurement is presented in this section. This review must be preceded by working definitions of the term “concept” and “construct”. Following Kerlinger(1986, pp.26-27), “*A concept is a word that expresses an abstraction formed by generalization from particulars... A construct is a concept. It has the added meaning, however, of having been deliberately and consciously invented or adopted for a special scientific purposes.*”

A basic goal of science is to provide theoretical explanations for behaviour. In the marketing literature, this goal attempts to explain the behaviour of buyers, sellers, and

others involved in discipline-related activities (Hunt,1983). Marketing scholars who seek such explanations frequently develop constructs and theoretical propositions relating to those constructs(or borrow constructs and propositions from other disciplines). Although marketing has little in the way of fully developed, formally states scientific theories, such theories cannot be developed and tested unless there is a high degree of correspondence between constructs (i.e. , abstract concepts or latent variables) and the procedures used to measure them. As Bagozzi and Phillips(1982,p.459) suggest that " *a failure to represent explicitly the degree of correspondence between measurements and concepts undermines the test of the theory.*"

In the late 1970s and early 1980s in the marketing literature, some marketing scholars called attention to the poor quality of measures used in marketing research(Churchill,1979; Jacoby,1978; Peter,1979,1981). Among the contributions of these articles were a set of recommendations for assessing and improving the reliability of measurement scales in marketing research, a review and critique of construct valiation in marketing(Peter,1981), and a suggested procedure for developing better measures of marketing constructs(Churchill,1979). Marketing researchers have responded to these and Bagozzi(1980) made the methodological contributions by introducing structural equations analysis and its application to marketing measurement problems through the past decade.

Researchers examining the links between various environmental and organisational variables, marketing strategy and performance have been aided by evaluation of the measurement properties of these no-strategy constructs. Measures of external and internal environment, the two non-strategy dimensions underlying business portfolio models, many PIMS-based studies, and other integrated strategy models, have also been subjected to extensive scutiny(Burke,1984; Day,1977; Wind et al,1983). Analysis of relationships between marketing strategy and these constructs, however, depends significantly on the quality of marketing environment, strategy and performance measures.

3.13.1. Marketing Environment Measures

The operationalisation of the marketing environment is largely based on the conceptualisation of Dwyer and Welsh(1985). Most marketing strategy writers suggest that the environment may be described by numerous characteristics, all of which are related to perceived environmental measures. Thus, perceived measure is the environmental construct included in the study.

In the marketing function, the marketing programmes and product market strategies implementation are likely to encounter different level of the environmental pressure. Achrol, Reve, and Stern(1983) draw from Aldrich's(1979) discussion and proposed that many environmental factors exist, but that only the important characteristics should be emphasised to enhance research productivity. They also identified environmental uncertainty as the most important environmental variables. Specifically, Archrol and Stern (1988) suggest that uncertainty is the key organising concept in organisational behaviour theory.

Achrol, Reve, and Stern(1983) and Achrol and Stern(1988) identify the following environmental characteristics as important predictors of uncertainty :

- (1) Capacity : the perceived abundance of input and output resource.
- (2) Homogeneity/ heterogeneity : the amount of similarity or diversity between elements of the environment.
- (3) Similarity/ complexity, the number and complexity of inputs into decision-making.
- (4) Stability/ dynamism, the amount of variability in the environment.
- (5) Concentration/dispersion : the extent to which input and output resources are concentrated.
- (6) Turbulence : the extent to which the environment is being distributed by changes.
- (7) Diversity/ interconnectedness : the linkages among the elements in the environment.

The above environment measures used by Achrol and Stern(1988) are identified in

Table 3.4. This conceptualisation of the environment measures has gained acceptance from many researchers in the marketing literature (Menon et al,1999; Appiah-Adu,1998; Miles et al, 2000; McKee et al,1989; Kotabe et al,1991).

Table 3.4. Achrol and Stern's (1988) Environment Measures

Uncertainty

Scaling : 1= never/ no 7= always/yes

1. The product models or brands to carry in stock
2. Local sales promotion and advertising decision

Interdependence

Scaling : 1= not reactive to 7= very reactive

1. Price reductions
2. Sales promotion campaigns
3. Changes in general marketing practices
4. Extent of monitoring activity

Interconnectedness

Scaling : 1 to 7 on the degree to which

1. Competing suppliers deal with common dealers
2. Customers tend to shop around for brands/ prices

Capacity :

Scaling : 1= very unfavourable to 7= very favourable

1. Potential for economic growth in market area
2. Demand for focal supplier's product category

Concentration :

Scaling : 1 to 7 low to high

1. Level of competitor dominance
2. Market share of top four dealers
3. Amount of business resources enjoyed by top four dealers

Dynamism :

Scaling: 1= no unexpected change to 7= frequent unexpected change

1. Change in competitor sales strategies
2. Change in customer preferences for product features

Diversity :

scaling: 1= very similar 7= very diverse

1. Demographic characteristics such as income, education, etc.
 2. Product preference in price/quality
 3. Nature and size of business for organisational customers
-

Another measure of environment characteristics is offered by Dwyer and Welsh (1985) for the following dimensions: (1) regulations, (2) technology, (3) demand, (4) culture, (5) competition, and (6) resource. However, Dwyer and Welsh (1985) limit their discussion to two factors derived from the proposed dimension: (1) heterogeneity and (2) variability in output sector after carrying out factors analysis. The selected measures used by Dwyer and Welsh (1985) are shown in Table 3.5. The conceptualisation of the environment has gained acceptance from some marketing researchers (Cavusgil and Zou,1994; Mavondo,1999; Gardner,2000;Naver and Slater,1990; Aragon and Sharma, 2003).

Table 3.5. Dwyer and Welsh's (1985) Environmental Measures

Question: To what extent is your industry confronted by the environment characteristics

1. Government product standards
2. Restrictions on seller concentration
3. Government pricing regulation
4. Rapid rate of product improvement
5. Speculative buying

6. Declining demand for product
 7. Competition based on advertising spending
 8. Periods of resource scarcity
-

Another alternative conceptualisation of the environment is offered by Miller and Droge(1986), who identify an indicator of environmental measure. The measure is conceptualised as a five item scale and is shown in Table 3.6. The scale has been used to measure uncertainty in the environment and appears to be a viable indicator.

Table 3.6. Miller and Droge's (1986) Environment Measure
Uncertainty :(1 to 7 bipolar scale)

1. Your firm rarely/ always change its marketing practices to keep up with competitors
 2. The rate at which products or services are getting obsolete in the industry is very slow/ very fast
 3. Actions of competitors are predictable/ unpredictable
 4. Demand and consumer tastes are fairly easy/difficult to forecast
 5. Your production/service technology is not/is often subject to change
-

The environment can be viewed as an objective or a subjective phenomenon. However, only perceptions of the environment are considered important in decision-making(Yasai-Ardekani, 1986). Finally, the environment characteristics are often measured using multi-item scales (Achrol and Stern, 1988 ; Miller and Groge, 1986).

3.13.2. Marketing Strategy Measures

Concern with improving the quality of measures used in marketing research has extended to the marketing strategy area. Greenley(1989a), Thomas and Gardner(1985), Wind and Robertson(1983) indicate that marketing strategy constructs

suffer from inadequate conceptualisations and inconsistent definitions. Inadequate definitions and failure to differentiate between various marketing strategy constructs make it impossible to address other measurement issues, such as dimensions of constructs and construct validity (Thomas and Gardner,1985).

The argument that measurement issues are currently central to marketing strategy is based on two reasons. The first reason is rooted in the recent trend toward quantitatively-operationalised strategy constructs. This trend is partially due to the extensive use of the PIMS(Profit Impact of Marketing Strategy) database by researchers in business policy and strategy (Hambrick and MacMillian,1984), economics(Caves and Porter,1978), and marketing(such as Buzzell,1981; Varadarajan,1985). Quality of strategy measures based on PIMS data and other large sample research designs has been widely criticised(Jacobson and Aaker,1985a; Parasuraman and Varadajan,1988b; Ramanujam and Venkatraman,1984).

Table 3.7. presents a list of studies measuring marketing strategy constructs. Although not completely comprehensive in terms of including all marketing strategy measurement, the review covers most of the significant measures of the past decade and can be considered as broadly representing the state-of-the art in marketing strategy measurement. As shown in Table 3.8. , the measurement of previous literature reviews describes that the underlying marketing strategy construct operationalised in each study, the relevant organizational level for that construct and the formal measurement tests carried out.

Table 3.7. Marketing Strategy Measurement

Organisational Level: Corporate

Authors	Operational Definition of Strategy Construct	Measures Employed	Measurement Analysis
Kotabe (1990)	Product policy: product and process innovations	Multi-item and single-item scales	Innovation dimensions derived through factor

			analysis
Lusch and Laczniak(1989)	Nonprice marketing strategy: product, promotion and distribution strategies	Multi-item scales	Reliability assessed
Varadarajan(1986)	Diversification strategy	Categorisation based on corporate activity in SIC code categories	No discussion of the validity of the categorisation

Organisational Level : Business

Authors	Operational Definition of Strategy Construct	Measures Employed	Measurement Analysis
Bruke (1984)	Strategic thrust: scheme of build, hold and pull back strategies derived from Buzzell et al.	Nominal scale	Association of strategic thrust with similar constructs(convergent validity)
Buzzell and Wiersema(1981)	Product quality, new product introductions, marketing expenditures	single-item scales	No discussion of measurement properties
Kotabe et al.(1991)	Product quality, new products, price, advertising, promotion, R&D integration, line breadth	Single-item scales	No discussion of measurement properties
McDaniel and	Marketing	Nominal scale	No discussion of

Kolari(1987)	orientation: Miles and Snow typology of prospector, analyser, defender and reactor		measurement properties
Mckee et al(1989)	Organisation strategy : Miles and Snow typology of prospector, analyser, defender and reactor	Nominal scale	No discussion of measurement properties
Phillips et al(1983)	Competitive strategy: relative product quality, price, market position and costs	Single item scale of PIMS database	Reliability assessed over two time periods through structural equation methodology
Tellis and Fornell(1988)	Relative advertising, cost, sales force, new products, product line breadth, product quality	Single-item scales of PIMS database	No discussion of measurement properties
Varadarajan(1985)	Competitive marketing strategy variables: product, promotion, price and distribution variables	Single item scales	No discussion of measurement properties

Analysis of Table 3.7. highlights the inconsistent construct definitions and overlapping construct domains currently limiting progress in marketing strategy research. Business level marketing strategy is generally linked either to efforts aimed at gaining and maintaining competitive advantage(Burke,1984; Frazier and Howell,1983; McDaniel and Kolari,1987) or to marketing mix decisions(Buzzel and Wiersma,1981; Kotabe et al., 1991; Varadarajan,1985). Those who see marketing strategy(at the corporate or business level) as a set of decisions aimed toward achieving long run competitive advantage(Cunningham and Robertson,1983; Jain,1989) or those who relate marketing strategy to marketing mix decisions(McCarthy,1975; Cook,1983a).

This overlap of strategy dimensions between levels results in paying attention a particularly disconcerting finding of prior studies: lack of a widely accepted meaning of the term “ marketing strategy” (Greenley,1989b;Thomas and Gardner,1985). Though researchers have long acknowledged that the roles of marketing and marketing strategy are different at various organizational levels(Cravens,1987), one construct is often employed to refer to strategic marketing decisions at all organizational levels.

Most marketing strategy constructs are measured using nominal, single-item and multi-item scales. Nominal scales represent an attempt to classify an organisation’s marketing strategy(at the corporate, business or brand level) into one of two or more preclassified types. McDaniel and Kolari(1987) and McKee et al(1989) use written descriptions of the four Miles and Snow(1978) strategy categories to enable managers to best classify their marketing strategy into one category. Burke(1984) adopts a similar approach, using written descriptions of build, hold and pull back strategies. Further, Frazier and Howell(1983) employ a nominal scale to classify a business into one of three strategic groups.

While nominal scales can be considered acceptable in the early stages of operationalising marketing strategy constructs, finer distinctions are needed to highlight” within-group” differences and “ across-group” differences by cluster analysis or other statistical techniques. However, while business units with build

strategies may be considered different from those with hold strategies (based on Burke's (1984) classification scheme), it may not be reasonable to treat all businesses with build strategies as being similar in their strategic marketing postures.

Many researchers employ single-item scales for operationalising marketing strategy constructs. Example include work by Gatignon et al(1990) and Kotabe et al(1991). Most single-item scales have a limitation that they can not adequately and accurately capture the broader concept being measured (Churchill,1979; Nunnally,1978). Churchill(1979) identified three specific difficulties which single-item measures: (1) individual items usually have considered uniqueness in that each item tends to have only a low correlation with the underlying variables being measured, (2) single items tend to categorise subjects(corporations, businesses, brand managers, etc.) into a relatively small number of groups, and (3) individual items produce unreliable responses in the sense that the same scale position is unlikely to be checked in successive administrations of a written instrument.

Single-item scales are considered accepted when they relate to a simple unidemsional construct and are measured with minimal measurement error (Nunnally,1978). However, such assumptions cannot be generally defended in most strategy research, multi-item scale is a better alterative in terms of reducing the level of measurement error. Whereas, multi-item scales can potentially overcome the difficulties and limitations of nominal categorization and single item measures (Churchill,1979). The specificity of items can be extracted out and reliability(internal consistency) tends to increase as the number of items measuring a variable increases. Hence, it is encouraging to see some empirical studies employing multi-item scales to tap various characteristics of marketing strategy(Hallen et al, 1991; Kotabe,1990; Lusch and Laczniak,1989).

3.13.3. Marketing Performance Measures

The performance measurement of variables involves four important issues: primary versus secondary data measures, objective versus subjective measures, absolute versus relative measures and vertical versus horizontal measures. Secondary sources such

as government publication, company annual and financial reports are unlikely to contain information on company marketing environment, strategy and performance at the level of business units of property firms, so independent and dependent variables have to be measured with primary data on the basis of self-reports by respondents. Although self-report approach may result in potential respondent bias, evidence in the literature indicates that self-reported performance measures obtained from primary data are generally reliable (Dess and Robinson, 1984; Venkatraman and Ramanujam, 1986).

Objective variable measurements, even if found in secondary sources such as company reports, may be inappropriate due to differences in the accounting practices of different firms, especially in marketing expenses and performance. Also, there may be differences in the level of data aggregate across the diverse business units in the same property firms. On the other hand, subjective performance measures, even if no accounting error problems, may not be very precise. Although subjective measures lack precision, they are found to be reasonably reliable and widely use in the marketing, strategy and management literature(such as Cavusgil and Zou, 1994;). Overall, to take advantage of the strengths and overcome the weakness of objective and subjective measures, and to improve the reliability of dependent and independent variables measure, so both the objective and subjective measures of those variables are included in the questionnaire.

Primary and secondary financial variables such as return on assets(ROA), return on sales(ROS), and net income are often used to measure organisational performance(Frazier and Howell, 1983;Miller, 1988; Varadarajan, 1986). These variables enables a researcher to study corporate and strategic business unit performance in single industries. Measuring performance in multiple industry studies is limited by at least two factors: (1) the variations in standard returns, assets, and investments and (2) because the data is likely bias due to accounting methods and reasons of confidentiality(Venkatraman and Ramanujam, 1986).

An alternative to using objective measures of organisational performance is to use managerial perceptions. Perceptual measures have a variety of advantages over

objective measures, including; (1) Perceptual measures avoid the accounting method problems associated with objective measures, (2) Perceptual measures are easy to obtain, and (3) Perceptual measures enable the researcher to include a variety of baselines in the measures, such as comparisons to competitors, expectations or goals, past performance, potential performance, or growth(Venkatraman and Ramanujam, 1986). Subjective performance measures have also been shown to strongly correlate with objective measures within the same firms(Dess and Robinson, 1984; Perce et al, 1984).

Another issue in variable measurement is the use of absolute or relative measurement of variables. There are several reasons why relative measures rather absolute measures of variables are more appropriate for the study. First, differences in the absolute financial performance variables may arise due to differences in the accounting practice of property firms, and may not reflect the actual difference in their financial performance. Second, it may be more appropriate to judge the performance measurement relative to its competitors, rather than against some arbitrary absolute standard continuous data. Hence, marketing performance evaluation of a firm is against competitors in the market in which the firms operates. Third, the risks and returns may vary significantly among the diverse property marketing business included in the survey, and this may influence the difference in the performance of the responded companies. Therefore, if the relative measure is not available, the research will adopt absolute measures with compared to previous period within the same firms.

The final issue in performance variable measurement is the use of vertical or horizontal measurement of variables. Vertical measure focuses on financial relationships in a single period's financial statements rather than on dollar and percentage changes in financial statement items over time(as does horizontal analysis). Each item on the income statement is expressed as percentage of total revenue. On the other hand, horizontal measures, also called index-number trend measures, focuses on changes in financial statement from period to period. Horizontal measures indicates whether a company's sales, gross profit, expenses, and net income are increasing or decreasing over time, as well as the amount of change in

each of these items from the previous year.

3.14. Summary of the Chapter

The chapter reviewed different schools and theories and proposed the organisation-environment-strategy-performance(OESP)framework for studying the issues in property marketing strategy, and developed a model of property marketing based on the proposed framework. Six different schools/theories including the classical industrial organisation (IO) theory, the revisionist/Chicago theory, the new industrial organisation (IO) theory, the business policy school/The PIMS paradigm, the Austrian economics school, the resource based view (RBV) that have attempted to explain variance in performance were examined in this chapter. However, it is apparent from the literature review that none of the six different perspectives provide a satisfactory explanation for the differences in SBU performance. Followed the suggestion of organic perspective, the determinant and the feedback effect of marketing strategy and internal environment is an unexplored area. The research attempts to build an integrative model to examine the network relationship among marketing environment, strategy and performance construct. After defining the five theoretical constructs that represent the three concepts of the marketing environment, strategy and performance, the chapter further discusses the selection, definition and measurement of the research variables. Table 3.8. describes the research hypotheses and expected sign in the study. The next chapter will discuss the research methodology used to collect data.

Table 3.8. Hypothesised Relationships in the Study

Research Question 1: The effects of marketing environment and strategies on marketing performance

Dependent variable	Hypothesis	Independent Variables	Expected sign
Sales growth	H1a	Market attractiveness	+
Sales growth per employee	H1b	Technical change	+

ROI	H1c	Competitive intensity	-
ROS	H1d	Market orientation	+
	H1e	Product advantage	+
	H1f	Resource commitment	+
	H1g	Product-market scope strategy	+
	H1h	Product positioning	+
	H1i	Discounting pricing	+
	H1j	Marketing communication strategy	+

Research Question 2: The effects of marketing environment and prior performance on marketing strategies

Dependent variable	Hypothesis	Independent Variables	Expected sign
Product-market scope strategy	H2a	Market attractiveness	+
Product positioning	H2b	Technical change	+
Discounting pricing	H2c	Competitive intensity	+
Marketing communication strategy	H2d	Product advantage	-
	H2e	Market orientation	+
	H2f	Resource commitment	+
	H2g	Sales growth	+
	H2g	Sales growth per employee	+
	H2g	ROI	+
	H2g	ROS	+

Question3-1: The effects of external environment and prior performance on market orientation

Dependent variable	Hypothesis	Independent Variables	Expected sign
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Market orientation	H3a	Market attractiveness	+
	H3b	Technical change	+
	H3c	Competitive intensity	+
	H3d	Sales growth	+
	H3d	Sales growth per employee	+
	H3d	ROI	+
	H3d	ROS	+

Question 3-2: The effects of external environment and prior performance on resource commitment

Dependent variable	Hypothesis	Independent Variables	Expected sign
Resource Commitment	H4a	Market attractiveness	+
	H4b	Competitive intensity	+
	H4c	Sales growth	+
	H4c	Sales growth per employee	+
	H4c	ROI	+
	H4c	ROS	+

Chapter 4

Research Design and Methodology

4.1. Introduction

The Chapter is divided into three sections. The first section describes the survey method used for this study. The second section examines the statistical approach used for this study. The third section presents the sample characteristics. The criteria and rationale for employing mail survey, pooling regression and multiple regression are detailed. In this research data were collected with a questionnaire through a mail survey. Survey methods are good for testing hypotheses derived from theory (Fowler,1993). It is appropriate to take the further research by testing research findings in a large sample study. The chapter discusses the research methodology used for the data collection and model estimation. After presenting the rationale for the research design, the chapter explores sample characteristics in the research.

4.2. Research Design

The nature of research design is:

1. A complete and detailed strategy worked out before the data are collected(Singleton and Straits, 1993).
2. To allow the researchers to draw inferences concerning casual relationships among variables under investigation(Nachmias and Nachmias,1976).
3. To control for variations and provide answers to questions being researched.

The research process is comprised of six stages: (1)intensive literature review, (2) theoretical background consideration, (3) model construct, (4) the operationalisation of the variables, (5) the data collection, (6) the investigation of the database, and (7) the actual data analysis. Each stage in the sequence is briefly discussed bellow.

(1)Literature Review-

The purpose of literature review is to examine the scope and definition of marketing environment, strategy, performance and relevant models and empirical studies. The research also reviews the literature that link marketing environment, strategy and performance for constructing a conceptual framework. Furthermore, the purpose of literature review is to build a theoretical framework and model, to identify any essential variables, to formulate research hypotheses and to choose an adequate statistical approach for this study. In summary, the literature review also included previous studies on the characteristics of served product-market, the scope and definition of marketing environment, strategy and performance, empirical studies and models that investigated the relationships of marketing environment, strategy and performance.

(2) Theoretical Background Consideration

The second step in the research process was to establish a sound theoretical foundation upon which is related to research questions. In the strategic management literature, Schendel and Hofer(1979, p.385) stressed that theories tend to evolve through a sequence of five steps, as shown in Table 4.1. OESP framework was selected from the review of literature to serve as the conceptual framework for the study. Obviously, the reference OESP framework suggests that the phenomenon is in the latest stages of the evolution of theory towards an organic perspective on strategy, and this motivation influence the way the topic is investigated. Thus, this study is concerned with theory testing; that is, exploring the concept of marketing environment, strategy and performance, generating hypotheses pertaining to its determinants, and testing it from collecting data.

Table 4-1. Theory Building and Theory Testing

(a) Exploration

(b) Concept development

(c) Hypothesis generation

----- Theory building

- (d) Hypothesis testing for internal validity ----- Theory testing
(e) Hypothesis testing for external validity
-

Source : Schendel and Hofer(1979)

The research addresses an unexplained area of marketing strategy that has previously received little attention. Quantitative methods have been developed for the task of verifying or confirming theories and theory verification is an important part of the overall growth of a body of knowledge(Deshpande, 1984). Following by Anderson's suggestion(1983), the research designed on the basis of the logical empiricist model of scientific method shown in the Table 4-2 :

Table 4-2 Logical Empirical Model

1. Perceptual experience
 2. Image of real world structure
 3. A priori model of theory
 4. Hypotheses generating
 5. Empirical tests
-

Source : Anderson,1983

Some previous studies demonstrate that marketing environment and strategy variables have some effect on performance. It implies that there may be " causal" relationship between controlled (marketing strategy) variables, uncontrolled (environment) variables and performance in the nature of cross-section data. The thesis will overcome research methodology limitation and develop a process model linking marketing environment, strategy and performance for an extended organisation-environment-strategy-performance framework.

(3) Model Construct

The dependent and independent variables choice of this study is a deliberate research process. The research identify variables form theoretical framework, literature review and questionnaire pre-test. The purpose of data analysis to organise these variables into desired form that can be analysed with standard statistics techniques for answering research question.

Because of the data available issues, the research emphasises that it is difficult to obtain long-term time series data in the form desired. Although longer time period observation will allow greater confidence to be placed in some empirical tests, the acquisition of the quality of data collection might be more important issues for examining Taiwan property market.

Furthermore, the long time series pose some problems in theory and practice. The marketing strategy dynamics and environmental situation may not experience previously, so there is more variance to be analysed. Accordingly, collecting the most recent data in this analysis during 2000-2001 can make the results immediate usable by market practitioners, policy makers or other participants.

(4) The Operationalisation of the variables

The purpose of the stage is to identify how the research variables should be measured. The extant literature is reviewed to provide the basis for operationalising each variable. Also, face validity of each measure is considered. The operational definition and data source of each variable was shown in the Table 3.4.

(5) Data Collection

The research stage involves the collection of the data necessary to test the research hypotheses. The data are collected in a mail survey of a sample drawn from a listing of firms within property marketing businesses operating in Taiwan. Especially, the specific details of the sample size and the data gathering procedure are presented.

(6) The Investigation of Database

After completing the data collection, the data are examined to determine if coding or editing errors and then tested to determine if any characteristics of the data invalidate the use of the panel regression and multiple regression analysis.

(7) The Actual Data Analysis

The hypotheses relating to marketing environment, strategies and performance are tested using pooling regression and multiple regression in the final stage of the study. The data analysis procedure is briefly discussed in the Chapter 5.

Process model was selected and modified to explain the inter-relationships among important variables, specifically in term of recursive or feedback effect. The OESP framework and process model were selected because they reflected the general orientation of this study and were thought to be valid representations of the interrelationship of marketing environment, strategy and performance variables. Further modification were made from suggestion of a panel of experienced marketing managers and members of the academic professors and feed comments from the pre-test of the questionnaire.

Finally, the research design permitted the collection of longitudinal data. The study collected cross-section and time series data from questionnaire and tracked their progress up through year 2000. Data were collected at one-year intervals. The research design emphasizes on dynamic dimension might restrict the analyses to only those firms that are in existence for multiple years. The research reflects a panel type of design by tracking the progress of firms from questionnaire survey. An important advantage of a panel design is that historical perceived data capture many aspects of a firm's operation. The study tends to incorporate marketing environment, strategy and performance change over time into analysis of this questionnaire data.

4.2.1. Survey Approach

The empirical study employed a survey research to test the research hypotheses. Survey methods are good for testing hypotheses derived from theory(Fowler,1993). Conflicting criteria for research strategies are recognised. Generalizability,

manipulation of research variables and context realism cannot all be maximised using any one method(Yu and Cooper, 1983). The survey is chosen to maximise generalisability rather contextual realism, which have already been achieved through exploratory case studies approach(Clemons and Row, 1988). Manipulation of research variables is possible through careful selection of the research sample. Further, Slater(1995a) indicates that survey research can be the only data resource for researching marketing strategy questions when complex organisational variables are involved (such as market orientation), has been largely accepted in the marketing and management science.

The objectives of most research require factual, attitudinal and behavioural data. Survey research provides the researcher with the means of gathering both qualitative and quantitative data required to meet such objectives(Kerlinger,1986). One of the greatest advantages of survey research is its scope, a great deal of information can be collected from a large population economically(Kerlinger, 1986; Jones and Linda,1978). Further, survey research conforms to the specifications of scientific research: it is logical, deterministic, general, parsimonious and specific(Day,1975). Also, information obtained from survey research is very often accurate because the measurement instrument is specifically developed to address the research questions (Slater,1995a).

However, all survey researches are subject to some disadvantages which must be fully understood when choosing the survey approach. First, the problem of the unwillingness of respondents. Kanuk and Berenson(1975)suggest that the concern here is of non-response error which can invalidate research findings. Second, another issue is the ability of respondents to provide the desired data. Linsky(1975) also suggests that it is important to target those individuals in the organisation with the knowledge and experience of the subject under examination. Third, respondents may give the answers which they think the researcher will want to hear or give the preferred answers rather than “true” answers, thus distorting the accuracy of the research findings (Dillman,1972).

However, some constraints can be reduced by careful compilation of the survey test instrument(Kinnear,1986). In general, surveys can be divided into three types:

personal interview, mailed questionnaire and telephone survey (Dillman, 1978; Kerlinger,1986). Mail questionnaire survey is considered in the study, the procedure, advantages and disadvantages of this research method will be discussed in the following section.

4.2.2. Mail Survey

In order to obtain the most recent data for this study, data were collected through the mail survey method. The sample companies were scattered all over the Taiwan, and the resources and time required to use of any of the other research methods such as participation observation, in-depth interview or focus group interviewing were not available. When the research population is property firms in Taiwan, the questionnaire will be mailed to marketing managers and personal interviews might be followed for securing reasonable response rate.

Mail survey has the disadvantages of non-response, the possibility of not including all the relevant issues, and the response bias which occurs when the respondent misunderstands the questions(O'Muircheartaigh and Payne, 1977). Further drawbacks of the mail survey have been demonstrated by Nachmias and Nachmias(1992). First, mail survey can only be used when the questions are simple and straight-forward enough to be understood with the help of written instructions and definitions. Second, the answers have to be accepted as final by researchers (Nachmias and Nachmias;1992), so there is no opportunity to clarify the ambiguous answer, appraise the behaviour of respondents and probe for meaning(Czaja and Blair ,1996). Third, The researcher cannot be sure that the right person completes the questionnaire(Nachmias and Nachmias;1992), so it was also recognised that the researcher has no or little control over the respondent. Another problem which could be common to all questionnaire that are directed to a large group of companies was that certain questions were not wholly applicable to any organisation. From the statistical view, if some respondents can see all the questions before answering any of them, various answers can not be regarded as independent(Yu and Cooper,1983).

However, even if mail survey has some disadvantages, the mail questionnaire survey is a widely used research technique in the marketing and strategy literature. Mail

survey research enables the collection of large amounts of information that can be highly accurate and sampling error have been deliberately controlled; hence, generalizability to the population is quite high. On the other hand, mail survey has the advantages of reaching an appropriately chosen sample and permitting participants enough time for adequate study and responses(Emory,1980). Emory(1980)adds to these advantages that the mail survey eliminates the interviews' bias by setting the answers directly from the respondents rather than through an intermediary.

In this study a mail survey was chosen because of two advantages that are found in the mail survey when compared to personal interview and telephone survey. First, the mail survey enables to the researchers to have a larger sample size. Second, when a questionnaire is used, all the respondents are asked exactly the same questions and the result in more uniformity of meanings. Furthermore, mail survey can obtain the required information from the selected sample members in a short period of time and at a minimum cost(Harvey,1987).

In conclusion, these above advantages for mail questionnaire is helpful for data collection surrounding this study. Particularly, the sample companies were scattered all over the Taiwan, and the time and resource required to use of other techniques were not available. The mail questionnaire was the most suitable technique to collect the required data.

4.2.3. Research Assumption for Using a Mail Questionnaire

Day(1975) have identified a number of “ threats” to survey research, which may also apply to the research. In his article, some of these threats have been described as “uncontrollable” factors, because they are beyond the control of researchers. A survey design was used for the collection of the data, which allowed the researchers to collect the desired data in a uncontrolled but natural setting. With regard to the data source, it was attempted to select as many sample units as possible which met all the criteria selected for the study. The research design of the study was neither experimental nor completely observations. Instead, it used a research design which allowed a degree of control by formulating specific questions and a degree of naturalness by getting the data through using a questionnaire in an uncontrolled setting.

The data obtained for the study were collected through use of mail questionnaire filled out by the marketing managers of the subject companies. It was assumed that all the responses by marketing managers of subject companies were factual data and the respondents answered the questions without any reservation. Such an assumption was necessary because unwillingness of property marketing managers to give information to outsiders was a problem. This is particularly true when the desired information is confidential. In the case of this study, as the questionnaire were anonymous and mailed, it was assumed that the response to the questionnaire were factual data and reliable for the analysis and interpretation.

4.3. Unit of Analysis

The unit of analysis used in the study was the strategic business unit(SBU). Consistent with Porter's(1987) statement, the SCP framework primarily focuses on examining the business unit level. A business unit is defined as an entity that (Porter,1987) :

- (1) Has its own mission;
- (2) Produces or markets a well defined set of related products and services;
- (3) Serves a clearly defined set of customers, in a reasonably geographic area; and
- (4) Competes with a well defined set of competitors.

The SBU was chosen as the unit of analysis in terms of the following consideration:

1. Rumelt (1991) suggests that business unit factors explain a substantially larger proportion of variance in performance than corporate or industry factors.
2. While trying to measure constructs such as market oriented culture, business units have more distinct cultures. In contrast, corporate entities are an amalgamation of business units and hence it is difficult to capture such constructs distinctly.

The study argues for the use of SBU rather than firm as the preferred unit of analysis in examining environment-strategy-performance relationship in marketing strategy research. Depending on whether the unit of analysis is a company or an SBU, there may be some differences among marketing environment, strategy and performance

construct. This supposition is based on the probable differences in influences on the firms' culture between a professional marketing manager in a smaller firms and a professional SBU marketing manager in a large diversified firm. There is also likely to be some significant differences between a large firm SBU and a smaller wholly owned firm in availability of resource, importance of measures of performance, marketing expertise, and sophistication of marketing environment. For facilitating the comparison across competitors in the served market, the research adopted SBU as the unit of analysis. Data was collected in one research setting: at the SBU level. In the strategic perspective a SBU is defined as an organisation unit that has a separate and independent marketing and profitability objective. To make data collection manageable, financially feasible and comparable, SBU is considered as the unit of analysis.

4.4. Sampling

Several criteria were used in the search for an appropriate research population. First, the process model had to appear to be important to the respondents. Second, the variables to be measured had to appear to be applicable to the process model in the industry. After considering several critical factors, it was decided that property marketing business would be the focus of this study. Discussions with several marketing managers suggested that the dynamic relationship among marketing environment, strategy and performance met all the criteria.

Another reasons of the choice of the property marketing business to study and develop a dynamic and process model are based on five major criteria. First, marketing activities have an important influence on the corporate performance, profits and success of property firms. Second, marketing mix elements are used widely in the property firms and property marketing business involve a large of dollar value. Third, property industry is important industry in Taiwan in terms of its contribution to national economic scales. Fourth, participants must be accessible and primary data is available. Finally, property industry is a marketing intensity industry. After a careful consideration of several industries, the property marketing business is found to satisfy all criteria to examine the dynamic relationship among marketing environment, strategy and performance.

In the study the population includes firms whose primary business is to market a residential product. Firms whose products sales including apartment, house, villa, other residential building were included in the sample only if they marketed a residential product as defined as competitors with communicating with similar consumers in the Chapter 2. On the other words, the criteria for inclusion in the sample of property firms are the following: the firm must have its primary marketing business in the property industry. Construction investment firms, advertising firms and brokerage firms were included in the research sample only if they marketing property product rather than leasing property product to end-users.

The objective of the research is to test a model of marketing that postulates dynamic relationship among marketing environment, strategies and performance. It is important that the model constructs have sufficient variance that could be explained by its explanatory variables. The data that was collected from the heterogeneous sample will not only incorporate the required variance for testing the hypothesised relationships, but also capture the diversity in the marketing environment, strategy and performance in these property firms, thereby enhancing the generalisability. The time period of undertaking the research is year 2002, so the specific base year selected for the research is year 2000 and 2001. The selection of firms that marketed their residential property during this time frame allowed for the survey of two years of marketing environment, strategy and performance variables.

4.4.1. The Population and Sample Frame

It is very important to define the population in order to select an appropriate sample. A sample is most generally defined as a subset from a larger population(Sudman,1975). The term “population” is used to denote the aggregate from which the sample is chosen(Sudman,1975). A population is defined as “ any complete set of elements having a given characteristics in common”(Waksberg,1978). Any particular population should be defined in terms of its elements, sample units, extent, and time(Sudman,1980). The “robustness” of the findings from a cross-sectional or time-series research design is also dependent on the degree to which the sample represents the population.

In the study, the defined population of interest are the SBU of property marketing firms. In order to develop the sample frame of firms, a list of firms was developed by including construction, brokerage and advertising firms. Specifically, the research sample is drawn from the defined population. In addition, firms of all sizes are included in the defined population. The study adopted sampling rare populations and infinite super-population method(Sudman and Blair; 1999) to deal with sample issue.

4.4.2. Sampling Rare Population and Infinite Super-population

Sampling a rare population is defined as a population group that constitutes a small fraction of the general population(Sudman and Blair,1999). The use of sampling rare population have increased because a significant research trend has been reduced interest in sampling the general population of consumers and increased interest in sampling specific groups in the consumer and marketing research(Sudman and Blair,1999). The important criteria to employ sampling rare populations is to determine whether a good sample list is availability (Sudman and Blair,1999). The study assumes that a company is legal to operate marketing business for end-consumers, register in the professional association and pay annual membership fee following the government regulation. Therefore, initial sample list of professional association is a broader sample of acceptable quality.

Another characteristics of sample is drawn from the infinite superpopulation in the study. Infinite super-population refers to a population that will exist in the future(Sudman and Blair,1999). On the other words, the research is interested in the current population, and populations will exist in the future. All membership firms of professional association will continue to operate legally except they will exit from the sales market in the future.

The objective of the study is to maximise to the greatest extent possible and the differences in the industry and firm characteristics under examination. Sampling rare population was used in pursuit of these objectives. Firms were selected on the basis of involving property marketing business. It was expected that different firms would be on the different end of the spectrum on the marketing environment, strategy and

performance variables. The research expected that this sampling approach would create relatively homogeneous and discrete groups. These discrete groups would enable the testing of research hypotheses postulating interactive influences of marketing environment, strategy and performance.

On the other hand, random sample are defined as these in which the probabilities of selection are equal for all elements, and sampling is done in one stage with elements of the sample selected independently of one another. A simple random sample from a finite population is a probability sample which gives each possible sample set an equal possibility of being selected(Blair, 1983). Random sampling procedure from general population was not used in the study because it appeared that the chance for selecting potential respondents of research interests had all the criteria would be low. Thus, in order to obtain reasonable rate, the following steps were taken for sampling procedures.

4.4.3. Sampling Procedures

The following sampling technique was used. The sampling will be carried out in three stages. In the study the focal firms are property investment, brokerage and advertising companies (please see Table 4.3). Permission was granted to use the membership lists of the professional association. Property firms were drawn from the lists of all firms that had marketing business from 2000 to 2001. All sample firms have been registered in the Construction Investment Association, ROC, Brokerage Association, ROC and Professional Advertising Association, ROC. These professional associations compiled and published a list of these firms with names, address and telephone number, along with a brief description of their primary business. From the list of these firms involving marketing business, the study compiled an initial list of firms that appear to fall under our description of the property marketing industry. Since the descriptions of firm's business are vague, firms with insufficient information to judge whether they are engaging in marketing business are included in the initial list. There are 289 firms shown in Table 4.3. from the initial sample.

Table 4.3. Population of Property Firms

Company type	Number	Business type
Construction investment firm	204	Manufacture
Brokerage company	29	Service
Advertising company	56	Service
Total	289	

In the second stage, the sample units in Table 4.3 were further reviewed and screened in two criteria. First, marketing activities are considered as very salient for the property firms, especially in construction investment companies, which will be excluded from the survey because of their lack of relevance to the study. Most construction investment firms were eliminated because these firms only produced property product rather than marketed property product and some questionnaire items were not applicable to their business activities. Second, firms without marketing projects in the initial sample lists during the selected two year time period were eliminated, since these firms either may not have well-developed marketing function or have inadequate managerial resources and knowledge to complete detailed questionnaire. Third, given extensive entry and exit in the property industry in Taiwan during this time period and the methodological limitations of the pooled cross-section and time series analysis requires no missing data for any of the firms for any years of the study period, and the potential respondents in the industry that already had existed in 2000 and continued to exist in the end of 2001 were targeted.

There were approximately 188 firms (see Table 4.4.) as defined by the rare population during the selected two years study time period. The sampling procedure was repeated until an attempt had been made to represent property marketing businesses adequately found in the final sample. Thus, the study examined the unpublished registration statements, Common Wealth Magazine, Taiwan Real Estate Almanac and selected company website. Further, some firms were eliminated from initial sample lists because they shared the same headquarters address with other firms. The professional association did not provide required demographic data for most members on the mailing list, so the research needs to collect background information from the mailed questionnaire. This resulted in a final list of 188 firms.

Table 4.4. Revised Sample

Company type	Number	Final number
Property investment firm	204	108
Brokerage company	29	29
Advertising company	56	51
Total	289	188

The advantage of the sampling scheme are the following. First, the scheme avoids the severe sample selection bias common in research on the environment-strategy-performance framework in some previous studies. Second, the scheme allows for identifying the unambiguous sample of property marketing businesses. Third, subsequent to eliminate several firms is to avoid confounding effects in the 2000-2001 base period.

4.4.4. Sample Size Evaluation

The sampling frame in the study consisted of relatively small and large firms(annual sales between NT\$10 million and NT\$1 billion) and were drawn from professional association directory. All firms registered the professional association regardless the size range were invited to complete mailed questionnaire.

The study uses sampling rare population as the sampling techniques. As indicated by Lynch(1983), the “ selective approach” is more useful when the researcher is explicitly searching for “ boundary approaches” on theoretically predicted results. The “ selective approach” would be preferable to “ deliberate sampling for heterogeneity” because the “ selective approach” can be interpreted more easily. As suggested by Calder et al(1982), allowing heterogeneity on background factors may undermine statistical conclusion validity.

The sampling technique is not without certain drawbacks. Firms joining the professional association may be more successful and larger size than other property firms. Although the sample represents unsuccessful and small business firms, these

firms may be underrepresented. Such self-selection insures that the SBUs might not be a representative sample. For example, in some previous studies one common critical comments about PIMS data is that it is not representation of American industry in general. Only corporations that are interested in obtaining the benefits of strategic modelling are likely to join the PIMS programme.

4.5. Selection of the Key Informants

Key informant(or key respondent) is a organisational member, who are in an unique position to report on the phenomena being studied(Heide and Weiss,1995) and complete the questionnaire. Despite potential position bias, vested interests, and idiosyncratic access to information as sources of response error(Phillip,1981; Seidler,1974), key informants are generally capable of valid responses(Day and Nedungudi,1994; Huber and Power,1985). Particularly, Day and Nedungudi(1994) and Huber and Power(1985) found that when several informants varied in the their knowledge about issues, the sample average of responses was less likely to be accurate than using a key informant.

The use of the key informant technique commonly in organisational research(Bagozzi and Phillips,1982), informants frequently are asked to make complex and difficult judgements. Thus, if inappropriate respondents are reached, there may be a low degree of correspondence between their reports and the concept of interest because their reports and the concept of interest because of errors resulting from selective perception and functional bias(Phillips,1981).

Use of key informants in data collection is popular in marketing studies(Cowles, Kiecker and Little,2002) and is the basis for data collection in the PIMS programme(Buzzell and Gale,1987). Issues of reliability and validity of informant reports on organisational phenomena have been addressed(Phillips,1981). Accordingly, the use of key informants appears to be appropriate and relevant in the context of measuring organisational-level constructs such as strategy(Huber and Power,1985), has been adopted for the research.

Anderson(1987) distinguishes organisational members acting as respondents from organisational members acting as informants. Participants acting as respondents provide information about themselves as individuals (such as the amount of consumer satisfaction). Participants acting as informants report their perceptions and judgements about particular organisational activities and properties(such as organisation culture, relative performance, etc.). As has been suggested by Slater(1995b), key informants provides a reliable source of information about internal and directly unobservable organisational variables.

However, the use of key informants for assessing organisational variables may also affect response error because the respondent is reporting on traits of the organisation and these responses may vary from individual to individual(Phillips,1981). Three major recommendations have been suggested in order to reduce the problem of the use of key informants(Kumar et al,1993; Phillips,1981) :

- (1) The selection of the informants needs to be carefully done. Particularly, informants need to have adequate knowledge in order to answer the questionnaire. Motivation and authority should also be considered in order to enhance response rates.
- (2) The use of multiple informants can help the researcher assess the reliability of informants' report and control potential response error.
- (3) The use of questions is less likely to be distorted or misinterpreted by informants.

The issue of employing single or multiple informants in marketing strategy research has been a source of controversy. In the research the use of single informant is followed by Huber and Power's(1985) recommendation. They suggests that if one informant per organisation is to be questioned, one should attempt to identify the person most knowledge about the issues of interest(Huber and Power,1985).

In following the guidance of Heide and Weiss(1995), specific pre-screening and selection steps were taken to ensure the validity of the key informant responses at the SBU level. Initially, sample companies were approached by phone or mail, briefly discussed on the research objectives and asked to identify a key informant in the companies' core SBU. Another phone call was directed to key informant to insure

both motivation and ability to describe the research phenomena. The author contacted about 75% of the respondents' organisations in the sample by telephone, mail and e-mail. This was done to verify the firm's address and name of marketing managers who is directly in charge of firm's marketing programme in Taiwan or at least familiar with its operations. Each company was contacted by phone or mail to locate an appropriate key informant at the SBU level.

There is no similar theoretical grounding to who is better informant for completing the questionnaire. It could be argued that the CEO is the preferred respondent for filling out the mailed questionnaire because he or she can provide a better information of the firm's competitive environment and the CEO's perceptions shape firm's strategy(such as marketing, R&D and production) for improving performance. However, it could be argued that the marketing managers can provide a better frame of reference for making this assessment because marketing managers is assumed to better understand the marketing environment because they always monitor the marketing environment for improving performance. It can be argued that the better respondent for marketing strategy is the firm's CEO because the CEO is the key decision makers on the firm's intended strategy.

However, the study argues that the marketing manager is also qualified the judgement both the intended and realised marketing strategies of the SBU. The unit of analysis was the SBU not the corporate level, the marketing manager of a SBU was more likely to respond than the top management of a corporation. Again, in the research interest of realised strategies over time, the marketing managers' responses were the better information for examining the course of actions of strategy. Accordingly, in the property market the marketing manager is the preferred critical informant for performance measure. The use of other informants for measures of performance introduces high level of random error because marketing managers often closely held performance data of SBUs.

Following the above argument, key informants were selected among marketing managers in the companies included in the sample. Marketing managers were preferred as key informants because of their knowledge of the company and their involvement in strategic issues in the questionnaire. Furthermore, marketing

managers may have broad perspective relative to its marketing activity of the survey firm and may want to make their views known by participating in the survey. Marketing managers can provide a more informed judgement of the SBU level of marketing environment, strategy and performance because they frequently monitor the environment, make the marketing mix related decision and have full responsibility for the performance in the property market. CEO may have an unrealistic or optimistic view of some research variables.

4.6. Questionnaire Design

The major challenge of survey research is the development of good (valid and reliable) measures of the observable and unobservable constructs. For the research, existing measures were used whenever possible, and in the item of specific constructs where possible, and in the item of specific constructs where varied measures were not available, new scale were developed. The generation of the survey instrument is part of the broader measure development process suggested by Churchill(1979) by the following steps :

1. To search domain of items that build construct.
2. To identify a subset of items to measure construct
3. Back-translation
4. Pre-test with marketing managers
5. Modification and deletion of ill-fitting items
6. Development of final survey questionnaire
7. Mail survey with questionnaire
8. Assessment of dimensionality and reliability(exploratory factor analysis and Cronbach's Alpha)
9. Final specification of the measurement model and of the measures used to operationalise the model construct.

The literature was searched in order to identify the conceptual domain and final measures for the construct included in the conceptual model. By means of this research a set of used measures of external and internal environment, marketing strategies and performance were identified. Some of these measures were adapted and complemented with new measures to fit the particular requirements of the

research. After this examination process, a subset of measures were selected to operationalise the constructs in the model.

4.6.1. Operationalisation of the Variables

Operational definitions specify how research constructs and variables will be measured(Kerlinger,1986). They follow from theoretical meanings of constructs as defined in the Chapter Three. Wherever possible, measures that have already been used and validated by other researchers are adapted for this study.

Three theoretical constructs are considered in the research: The three theoretical constructs are marketing environment, marketing strategies and marketing performance. Marketing environment, strategies and performance are each represented by more than one component. The marketing environment is comprised of two components: (1) external environment force and (2) internal environment force. Marketing strategies is represented by two components: (1) product-market strategy (2) the degree of resource deployment for marketing programmes. Marketing performance is represented by four components: (1) sales growth (2) sales growth per employee- productivity (3) ROS (4) ROI.

The literature was searched in order to identify the conceptual domain and find measures for the constructs included in the conceptual model. By means of this literature review a set of previously used measures of external environment, external environment, marketing strategy and marketing performance was identified. Some of these measures were adapted and complemented with new measures to fit the particular requirement of the research. Care was taken to tap the domain of the construct as closely as possible for the property market context, using the criteria of uniqueness and the ability to convey unified meanings to informants(Churchill,1988; Peter,1981). After this examination process, a subset of measures was selected to operationalise the constructs in the model.

4.6.1.1. External Environment Variables

The environment can be viewed as an objective or a subjective phenomenon. However, only perceptions of the environment are considered important in decision-making(Yasai-Ardekani, 1986). Finally, the environment characteristics are often measured using multi-item scales (Achrol and Stern, 1988 ; Miller and Groge, 1986).

The external environment forces construct is measured in the questionnaire with three components: technological change dimension, market attractiveness dimension, and competitive intensity dimension. Different firm and industry might confront different level of environmental pressure. Achrol, Reve and Stren(1983) draw from Aldrich's(1979) discussion and propose that many factors exist, but that only the important environment characteristics should be emphasised to enhance research productivity. The above three components consists of important environment characteristics in the property marketing context.

Porter (1979,1980) extended the industrial organisation concept of market structure. To understand industry and market structure, Porter(1980) proposed considering five “ competitive forces”: (1) the traditional one of barriers to entry ; (2) the rivalry among existing firms(such as market concentration); (3) the bargaining power of suppliers ; (4) the bargaining power of customers (5) the threat of substitute products. Porter(1979,1980) indicates that five forces determine the ultimate long run performance potential of a business.

Following the Porter's (1979,1980), competition in the property marketing business as a concept which covers seven dimensions: (1) entry barriers, (2) the bargaining power of suppliers, (3) the bargaining power of customers, (4) number of competitors (5) competitive concentration (6) price competition (7) the threat of substitute products.

Entry barriers was operationalised by an adapted scale from Hooley et al(1992), Voss and Voss (2000), Naver and Slater(1990), Jaworski and Kohli(1993), Slater and Naver(1994) and Gardner et al(2000). The entry barriers item was measured on a seven point rank scale anchored from “ low” to “ high” .

The bargaining power of suppliers item was operationalised by an adapted scale from Hooley and Lynch(1988), Naver and Slater(1990), Jaworski and Kohli(1993), Slater

and Naver(1994). The bargaining power of suppliers item was measured on a seven point rank scale anchored from “ low” to “ high” .

The bargaining power of customers item was operationalised by an adapted scale from Hooley and Lynch(1988) Voss and Voss (2000), Naver and Slater(1990), Jaworski and Kohli(1993), Slater and Naver(1994). The bargaining power of customers item was measured on a seven point rank scale anchored from “ decrease to a extreme extent” to “ increase to a extreme extent”.

The number of competitors was operationalised by an adapted scale from Burke(1984), Pelham and Wilson(1996) and PIMS database. The number of competitors item was measured on a seven point rank scale anchored from “ decrease to a extreme extent” to “ increase to a extreme extent”.

The competitive concentration item was operationalised by an adapted scale from Shipp and Lamb(1996), Burke(1984), Voss and Voss (2000), Naver and Slater(1990), and Jaworski and Kohli(1993). The competitive concentration item was measured on a seven point rank scale anchored from “ decrease to an extreme extent” to “ increase to an extreme extent”.

The price competition item was operationalised by an adapted scale from Cavusgil and Zou(1994), Gardner et al (2000), Pelham and Wilson(1996), Dwyer and Welsh(1996), Naver and Slater(1990), Jaworski and Kohli(1993), Atuathene-Gima(1995, 1996), Gatignon and Xuereb(1997). The price competition item was measured on a seven point rank scale anchored from “ not at all” to “ to an extreme extent”.

The threat of substitute products item was operationalised by an adapted scale from Burke(1984), Naver and Slater(1990), Jaworski and Kohli(1993). The threat of substitute products item was measured on a seven point rank scale anchored from “ not at all” to “ to an extreme extent.

Market attractiveness incorporates two items including the market growth and speculative buying. The two dimensions are important explanatory variables for

performance and marketing mix related decision in the property market in practice. Although market growth and speculative buying might be relevant, the co-relation of two variables needs further empirical evidence. Market growth was measured by an adapted scale from Slater and Narver(1994), Pelham and Wilson(1996) and Grader et al(2000). Speculative buying was operationalised by a measure adapted from Dwyer and Welsh(1986). The market growth item was measured on a seven point rank scale anchored from “ decreased to a extreme extent” to “ increase to a extreme extent” . The speculative buying item was operationalised by an adapted scale from Dwyer and Welsh(1985). The item was measured on a seven point rank scale anchored from “ low” to “ high”.

Technical change was operationalised by an original measure capturing the technical change rate (Gardner et al,2000; Shipp and Lamb, 1996; Dwyer and Welsh; 1985; Hooley and Lynch,1988; Voss and Voss ,2000; Naver and Slater,1990; Jaworski and Kohli,1993; Slater and Naver,1994) and pressures from consumers for new technology demand(Gradner et al,2000).). The rate of technical change item was measured on a seven point rank scale anchored from “ slow” to “ rapid”. The pressures from customers for new product technology item was measured on a seven point rank scale anchored from “ low” to “ high”.

The above items are subjected to a principal factors analysis followed by an orthogonal rotation(Varimax). Squared multiple correlations are included as initial estimates of communalities. The number of factors to retain in the principal factors analysis is determined using minimum eignvalue(>1) criteria. Items exhibiting high factors loadings are combined into the relevant constructs using unweighted summation. The study will use a minimum absolute cut-off value for loadings of 0.7.

4.6.1.2.Internal Environment Variables

Accordingly, the internal environment construct is measured with 12 items. Six of the 12 items are used to measure the market orientation: customer orientation and competitor orientation, with each component measured with three items each. Further, the internal environment construct is measured for another two operational construct.

The two components including product characteristics and resource commitment, with each component measure with three items each.

The measurement of market-orientation has taken many forms, including multiple item scales, self-classification into categories, with no consensus apparent as to the optimal method(Lawton and Parasuraman,1980; Narver and Slater,1990). Two distinct components of market-orientation are investigated in the property market at the level of SBU: (1) customer orientation and (2) competitor orientation. Accordingly, the operationalisation of market orientation is largely based upon the works of Narver and Slater(1990), Kohli and Jaworski(1990), Kotler(1977).

Market orientation was operationalised by Narver and Slater's (1990,1993) scale. According to this conceptualisation, a firm's market orientation should be considered as a cultural orientation that is manifested in different beliefs and actions. In the property market context two dimensions are hypothesised : customer orientation and competitor orientation. This scale was chosen over Kohli and Jaworski's(1990) scale for three reasons. First, Narver and Slater's scale can be considered to be a closer representative of the culture and resource domain of the construct, and is consistent with the theoretical rationale of the conceptual model and supporting literature(Slater and Naver,1995). A second reason is that MO is measured using the intelligence-based (knowledge-related) operationalisation suggested by Kohli and Jaworski(1990) and Kerlinger and Jaworski(1990), the scale is not applicable to the research. Third, a firm that is oriented toward customers is highly sensitive to customer satisfaction and dissatisfaction throughout the organisation. Activities of resource allocation of all members of the organisation are guided by a strong customer satisfaction philosophy. The firms could be described as proactive in seeking ways to increase customer value and decrease source of dissatisfaction. This orientation may be difficult to achieve and copy, and hence may be strong resource for sustaining or improving competitive advantages.

The market orientation items that build this construct attempt to capture the customer orientation and competitor orientation within the business unit in the property marketing business. From a 15 items scale to capture market orientation developed by Slater and Narver(1993), six items scale was selected on the basis of expert panel

interview and questionnaire pre-test and adapted from Tagg(2001) and Subramanian and Gopalakrishna(2001) for measuring market orientation in developing countries. The items was measured on a seven point scale anchored from “ does not engage in the practice at all” to “ highly engages in the practice to a great extent“. The items were shown in the following :

1. To collect information about customers' need
2. To measure customer satisfaction
3. To emphasises after-sale service
4. Sales people share competitors' information
5. Top management regularly discusses competitors' strengths and weaknesses
6. Monitor competitors' action

In addition, product advantage and resource commitment measures tend to be limited in nature and can be considered only as “ proxies” of a firm's product advantage and resource commitment. The property list characteristics construct was conceptualised by an original measure captured by relative percentage of innovative product, degree of uniqueness or similar of product and product differentiation compared to major competitors. The nature of product item was operationalised by an adapted scale from Burke(1984) and Cavusgil and Zou(1994). Specifically, the following item anchored on “ decrease to an extreme extent” to “ increase to a extreme extent” was used :

18. The relative percentage of innovative product.

The following item anchored from “ similar” to “ unique” was used :

19. Degree of uniqueness or similar product compared to major competitors.

Additionally, the following item anchored from “ No difference” to “ great difference” was used:

20. The extent to which there are difference across your property offering compared to major competitors

In this study a firm's resource commitment to marketing SBU is conceptualised a research construct adapted from Ramanujam et al(1986) and Menon et al (1999) and the following items was measured on a seven point rank scale anchored from "decrease to great extent" to "increase to great extent" was used:

21. The extent of top management time spent in strategic marketing planning
22. The extent of overall right resource(financial, human, physical and time resources) allocation to strategic marketing planning.
23. The degree of involvement of staff managers in strategic marketing planning.

The above items are subjected to a principal factors analysis followed by an orthogonal rotation (Varimax). Squared multiple correlations are included as initial estimates of communalities. The number of factors to retain in the principal factors analysis is determined using minimum eignvalue(>1) criteria. Items exhibiting high factors loadings are combined into the relevant constructs using unweighted summation. The study will use a minimum absolute cut-off value for loadings of 0.7.

4.6.1.3. Marketing Strategy Variables

As shown in figure 3-1, marketing strategy consists of two operational constructs: product-market strategy and marketing programme decision. The product market strategy construct is reflected by target market segmentation, coverage of target market and product sales lines. Marketing programme refers to the marketing mix elements of product, price, place, promotion and positioning(Jain,1989). However, technical change will enable researchers to address new marketing programmes such as strategic alliance and web advertising which are broadly used by the property firms. Therefore, in the study marketing programme construct encompasses 4Ps programmes and other marketing elements including strategic alliance, open house and sales force management implemented in the property market. Each element is further represented by its single or multiple sub-elements.

An initial pool of items was generated through a review of marketing and strategy literature. Specifically, this literature includes scales and indices developed by Gardner et al(2000), Manu and Sriram(1996), Barrett et al (2000) which were useful

in developing multi-item scales for the product-market strategy and marketing programme dimensions. Other literature sources(such as Appiah-Adu,1991; Shipp and Lamb,1996) , though not specifically focusing on scale development, also contributed to the initial set of items. The pool of items was pre-test. The objective of this pre-test was to eliminate those items not believed to reflect dimensions of the marketing strategy construct and add relevant items not included in the initial item pool.

Marketing strategy in relation to the environment is the realised strategy for the study. Strategic management and marketing research is concerned with how firms formulate and implement strategies to achieve a desired performance goal, but strategies implementation can be specifically viewed as the main effect of performance. The research focus on realised marketing strategies content in the property market.

Marketing input(expenditures and intensity) has been indicated as having a positive correlation with marketing output(performance). Marketing expenditures are used as one of the strategy variables which an organisation can manipulate to gain a competitive advantage. Essentially, to measure the ability of a particular organisation to compete and meet the market criteria on marketing, one should also look at the total marketing expenditures relative to major competitors(relative measures) or increase/decrease to the extent (absolute measures and internal measures). The total amount of money spend on marketing mix elements will give a better reflection of the ability of a particular organisation to do the kind and amount of marketing necessary in order to stay or improve competitive advantage. The larger the money spent on marketing relative to major competitors or relative to previous year or the more it is the industry average, the more it will be competitive in the marketplace.

Marketing intensity is another indicator of marketing strategy, reflecting the proportion of revenues dedicated to marketing activities. Thus, marketing intensity will also indicate the degree of resource placed by each SBU on its marketing efforts. To measure marketing intensity, most researchers who investigated the relationship between marketing strategy and performance has used the ratio of marketing expenditures over total yearly sales. This is a common measure, which is also appropriate here because the study investigates the significant and intensity of

marketing strategy and its relationship with performance in the property market in which marketing elements can be made comparison. Specially, the ratio of total sales of each firm is used as a measure of co-marketing alliance, horizontal alliance and vertical alliance strategy.

The research consists of eighteen marketing strategic variables representing the content of marketing strategies implemented by SBU. After careful literature review, most of the marketing strategy variables fall into four categories :

- (1) Dichotomised variables (such as product standard, PLC, entry order)(Mckee et al,1989; Mavondo,1999).
- (2) Absolute scale(dollar values, percentage of sales made): broadly is used by the secondary data.(Hagerty et al,1988)
- (3) Strategic expenditure relative to competition(such as relative advertising expenditures)(Gardner et al,2000; Mckee et al,1989; Kotabe et al,1991; Mavondo,1999; Manu and Sriram,1996; Shipp and Lamb,1996)
- (4) Strategic expenditure relative to net sales(such as sales force expenditure/ revenue or sales)(Gardner,2000; Apiah-Adu,1998; Koh,1991)

All variables can be standardised to carry out statistical analysis. Therefore, the study adopts marketing expenditure and marketing intensity as strategic variables.

Based on those pre-test procedures, 18 items related to the two dimensions of product-market strategy and marketing programme resource deployment strategies were captured the domain of marketing strategy. Relative advertising expenditure, relative price, relative product quality, relative product sales breadth, sales promotion, market segmentation and targeted market coverage were chosen because of their intensive use in marketing and business policy research. At least two meta-analyses of performance as a dependent variables support the inclusion of these variables in performance models. These variables have been used in a number of prior PIMS data studies. Even if concerns have been confronted regarding the reliability of PIMS measures, Philips, Chang and Buzzell(1983) found the measures to be reliable. Another variables were chosen because these variables might affect the performance in the property market context currently. Accordingly, omitted these variables might bias the effect of marketing strategy on performance. Specially, to measure these

variables, the respondent was asked to assess relative to major competitors on a five point rank scale :

1. Relative advertising expenditure
2. Relative public relations
3. Relative price (scale adapted from Hooley and Beracs(1997) and Hooley et al(2000))
4. Relative quality (scale adapted from Voss and Voss(2000), Hooley and Beracs(1997) and Hooley et al(2000)).
5. Relative product sales breadth (scale adapted from Burke(1984))

The following items measured on a seven point rank scale anchored on “ decrease to a extreme extent” to “ increase to a extreme extent” were used:

6. The amount of sales force training including marketing techniques, product information, company mission and property knowledge(scale adapted from Cavusgil and Zou(1994))
7. Change in the number of distribution branch-increasing or decreasing the scope of branch operations.
8. Percentage of total product spent on sales promotion expenses(S.P. programme)(scale adapted from Gardner et al(2000))
9. Percentage of total sales spent on co-marketing alliances (such as with other competitors)
10. Percentage of total sales spent on horizontal advertising alliances
11. Percentage of total sales spent on vertical advertising alliance
12. Percentage of total product sales spent on using web/internet advertising
13. Percentage of total product sales on using open house marketing programme
14. Change in sales people(scale adapted from Gardner(2000))
15. Percentage of total product sales spent on sales force expenses

Specifically, the following item anchored on “ none” to “ To a extreme extent” was used :

16. Degree of discount pricing

The following item anchored from “ vague” to “ clear” was used :

17. Degree of targeted market segmentation

Additionally, the following item anchored from “ Narrow(local)” to “ broad(national)” was used :

18. Coverage of target market (scale adapted from Hooley and Cox,2000)

The above items are subjected to a principal factors analysis followed by an orthogonal rotation(Varimax). Squared multiple correlations are included as initial estimates of communalities. The number of factors to retain in the principal factors analysis is determined using minimum eignvalue(>1) criteria. Items exhibiting high factors loadings are combined into the relevant constructs using unweighted summation. The study will use a minimum absolute cut-off value for loadings of 0.7.

4.6.1.4. Marketing Performance Variables

Following the intensive literature review, marketing performance is reflected by four financial indicators: sales growth, sales growth per employee, ROI and ROS. Because the broad and often conflicting indicators is used for measuring business performance, it is important to precisely delineate the domain covered by the performance variables within a given study. The market performance variables were chosen on the basis of previous empirical studies, theoretical consideration, literature review and fieldwork. The rationale for the selection of these four performance indicators incorporated several factors discussed in the last chapter.

An alternative to using objective measures of organisational performance is to use managerial perceptions. Perceptual measures have a variety of advantages over objective measures, including; (1) Perceptual measures avoid the accounting method problems associated with objective measures, (2) Perceptual measures are easy to obtain, and (3) Perceptual measures enable the researcher to include a variety of baselines in the measures, such as comparisons to competitors, expectations or goals, past performance, potential performance, or growth(Venkatraman and Ramanujam, 1986). Subjective performance measures have also been shown to strongly correlate

with objective measures within the same firms(Dess and Robinson, 1984; Perce et al, 1984).

In this study SBU performance was assessed by self-report measures of sales value growth rates, Sales growth rates per employee, ROI and ROS. These measures were anchored from “ significant decline” to “ significant increase”. The set of subject measures developed by Clark(2000) and has been used in a number of previous researches. The subjective measures are relative to previous years. Performance is conceptualised using perceptual indicators of business performance as proposed by Ruekert, Walker and Roering(1985). Respondents were asked to rate their perceptions of performance on a scale from “one” to “seven”. Specifically, the informants were requested to compare their firm with last periods and assess their performance along the following dimensions on a seven point scale with the anchored from “ significant decline” to “ significant increase” scale:

1. Sales value growth rates
2. Sales growth rates per employee
3. ROS
4. ROI

4.6.1.5. Informant Competency

In order to assess the competency of the informant to respond to the questions and thereby make judgements on the quality of the data collected, the following questions were asked.

1. What is your current position?
2. What is your education background ?
3. How many years have you worked in this company(including headquarters and subsidiaries) ?
4. How many years have you worked in the property marketing business (including other companies' work experience)?

The above questions were designed to insure that the key informant who responded to the survey possessed an adequate knowledge and awareness of the relationship

between their organisation and its environment, strategy and performance. Phillips(1981) indicated that experiential knowledge was assessed through two questions: (1) the length of time the informant had been with the firm and (2) the number of years the informant had been in the business unit. Therefore, the purpose of these measures of personal background is to assess informant competency.

4.6.2. Questionnaire Development

Following the recommendation of Dillman(1978), the questionnaire was designed to make it appear professional, understandable, easy to complete, and with a logical sequencing of questions. In addition, the suggestions of Dillman(1978) were followed to the extent that the questionnaire had a title page, and a back page reserved for comments. Further, following the advice of several marketing managers, every effort was made to emphasise that the questionnaire was from an academic institute, rather than from a commercial concern.

In the preparation of the questionnaire, two important features should be achieved. Those are short and understandable. These characteristics were desired to improve the response rate from the sample population. Further, a good question is that produces answers that are reliable and valid measures of something we want to describe(Fowler,1993). Furthermore, the questionnaire uses closed rather than open-ended questions whenever possible, and then at least the context is the same for all respondents (Sundman and Bradburn, 1973).

To increase the response rate, several important questionnaire design issues were incorporated in the questionnaire based on suggestion from Cooper and Emory(1995). The questionnaire was presented in the form of 8- page booklet, and was printed on both sides to make it less bulky. The first page of the questionnaire included the letter to the potential respondents explaining the nature of the survey research. The 45 items of the research variables in the questionnaire were evenly distributed over 6 pages so that the questionnaire had a lot of blank spaces. Following the Fowler's (1993) suggestion, questionnaire should be designed to make the task of reading questions, following instructions and recording answers as easy as possible for respondents. All questionnaire were easy to answer, almost all questions

requiring a simple circling of a number, either on a scale or among a order category scale.

It was necessary to design a questionnaire that measured all constructs. Appropriate measures for all constructs would also be developed. Where possible, items from the literature, as well as generated items, were framed in a rank scale format (from low level to high level), in an effort to make the questionnaire as uniform as possible, and therefore easier and quicker for respondents to complete. Furthermore, the main items were selected in the questionnaire in order to enhance the validity and reliability of the measures. The Chinese version of the questionnaire was developed for communicating the key informants.

Instructions contained in both the cover letter and the survey introduction section in the survey instrument. The aims of undertaking instructions were aimed at establishing a specific frame of reference for responding to the questionnaire. First, informants were encouraged to select responses reflecting each unit's realised strategies. This is essential, since the study objective is to capture the specific realised strategies rather than the intended strategies. Second, the study focuses on marketing strategy at the business level(operationalised as the marketing strategy of corporate divisions, subsidiaries, or affiliates) , not on corporate level marketing strategy. Third, respondents were encouraged to provide responses reflecting the marketing objectives and activities of each unit. Scope of the research is confined to marketing strategy and does not extend to other areas that provide critical inputs to business level strategy(such R&D, manufacturing, finance).

4.6.3. Questionnaire Translation

Questionnaire should be back-translated procedure for avoiding transaction bias. Because the questionnaire was used in order to assure the meaning equivalence of the translated questionnaire(Douglas and Graig,1983; Hui and Triandis,1985). A questionnaire that is translated from one language into another language should be back-translated into the original language(Kotabe et al, 1991). The results of back-translation should be compared with the original instrument for equivalence(Adler,1983; Sekaran,1983). A back-translation of the English version

into Chinese by a third party(a visitor professor at the University of Glasgow) confirmed that it was an equivalent translation. The research work is undertaken to avoid translation bias and ensure the measurement equivalence of the instrument.

The translation and verification processes were made in three steps. The first step includes an initial translation from the source(English) to the target language(Chinese) and a back-translation from the target language to the source language. Both translation were made by different bilinguals. The second step consisted in a comparison of the original English version of the questionnaire to the back-translation of Chinese language. The final version of the Chinese version questionnaire was reviewed by third party(a visitor professor at the University of Glasgow) for confirming that it was an equivalent translation.

4.7. Questionnaire pre-test

The purpose of the questionnaire pre-testing were threefold : (1) to determine if all the questions were easily understood and if the wording and format of the questionnaire could be improved, (2) to assess the reliability of the Chinese version of the questionnaire, and (3) to test the internal consistency reliability(Dillman,1978; Frey, 1989 and Converse and Presser,1986). A search of the literature was undertaken to generate a list of items used to measure the constructs of interest in some previous studies. The literature search and review yielded some items for each construct except for the uncertainty constructs. Items which had solid face validity were chosen for questionnaire pre-test. Where possible, items from the literature, as well as generated items, were framed in a rank scale format, in an effort to make questionnaire as uniform as possible, and therefore easier and quicker for respondents to complete.

In the study the initial questionnaire was pre-tested to ensure comprehensiveness of the measures and clarity of the items. To ensure the content validity of the questionnaire, the questionnaire was pre-tested in three stages. In the initial stage, the questionnaire was evaluated by four professors from marketing, real estate, strategy and research methodology areas in December, 2001. Based on their recommendations, a few items were added, deleted and modified in the initial

questionnaire. Many difficulties had been overcome in the first stage, including ambiguities in the questions, a failure of questions to be understood by respondents as they perceive them (Dillman,1978).

In the second stage, the questionnaire were pre-tested on business marketing managers in the property firms and real estate journalists located in Taiwan in December-January,2001-2002. The author made appointment for a study visit. Eight marketing managers and two journalists will be expected to give feedback for the study. Several marketing managers were requested to complete it and provided their comments and suggestions. This process was effective in deleting errors and identifying ambiguities either in the questions or instructions for completing the questionnaire. Based on the feedback from the companies, a few questions on company information that were not strictly relevant for testing the model will be deleted. Further, several questions were eliminated that were left unanswered or that were confusing to the eight marketing managers participating in the pre-test of the questionnaire. For example, marketing strategy decision process variables were dropped from the second stage of questionnaire pre-testing.

In the third stage, the questionnaire was pre-tested a second time in March,2002 because of dropping marketing strategy process variables and type of format changes suggested by two statisticians and supervisor. The questionnaire was pre-tested with 16 marketing managers who agreed to participate. The researcher conducted personal interviews with sixteen marketing managers who can respond to each questions in the second stage. The author requested CEO contacted to permit an interview of 90 minutes with marketing managers who could answer the questions in the questionnaire and do further experts panel survey. The author explained the research objectives, questions, model, the research methods, the time required and expected feedback during the interview. Another four firms rejected to interview for the reasons of ' bad timing ', ' no interest', ' turnover of marketing managers involved', and ' company policy'.

Separate personal interview and panel surveys were used in the questionnaire pre-test. In the final pre-test stage, author employed experts panel to select variables. Experts panels are individuals, households, or organisations who report on the same topic

during some period of time(Sudman and Blair,1999). Comments and questions were considered and minor changes were made in the wording of the questions to improve clarity.

The pre-test subjects were encouraged to put comments on any items which were not clear to them. Based on the pre-test subjects' comments, some items were reworded and the layout of the questionnaire was redesigned. It is important to note that approximately one-fourth of the comments suggested that the initial questionnaire seemed too long to be completely fulfilled by marketing managers in a work environment. The results achieved in the pre-test process in the questionnaire indicate that the purpose of the questionnaire was satisfied.

In the third stage of pre-test, the author ask the marketing managers to (1) rank the importance/frequent use that influence your SBU's performance (2) rank the frequent use of performance measures. All reference items are identified from previous literature review (items definition and measurement are discussed in the section 3.13. and 3.14.) and initial questionnaire. A qualitative assessment was made to determine whether each listed item should be considered to include in the initial questionnaire, or whether the item should clearly not be included. For those not included, an assessment of their importance for inclusion in the initial questionnaire was made. This was done by grouping items by using hierarchical analysis to assess the importance of variables with which they were made, and by examining how important they were to the respondents. Finally, the respondents were asked fro the omitted variables for further ranking. A summary of the main variables, together with the result of their mean values is presented in Appendix 5.

The purpose of hierarchical analysis is to select important variables. The further questionnaire pre-test was to identify those variables which were considered to be important in identifying each of the three variable groups. Each question was " scored" by the members of the panels from sixteen marketing managers. An alternative way of looking at this is to present the number of responses which are above and below the " important" score. In term of the mean results presented in the Appendix 5 this is the number of responses above 3.00. This is presented in Table 4.5.

Table 4.5. Number and Percentage Distribution of Variables in Each Variable Groups Class

Mean	Environment	Strategy	Performance
Mean > 3.00	23 (77%)	16 (64%)	4 (40%)
Mean < 3.00	7 (23%)	9 (36%)	6 (60%)
Total	30	25	10

The information obtained from hierarchical analysis is used to construct a mail questionnaire. After completing three stage questionnaire pre-test, the final survey instrument was developed and printed. The instrument was eight page long, including 45 items measuring the constructs in the model and 10 general questions. The front page consisted of the title, research purpose, general information and instructions to respond the questionnaire. The questionnaire, according to the pre-test, required approximately 20 minutes to be completed. Appendix 3 and Appendix 3-1, respectively, contains copies of the English and Chinese versions of the survey instrument.

The final specific items were reflected in the final questionnaire(Appendix 3-1). The final mailed questionnaire was revised based on the results of the pre-test and the suggestion from supervisors. However, the analysis of a larger sample size would likely be expected to yield different results. After finishing the three stage questionnaire pre-test, the final questionnaire which included a cover letter and a self-addressed, stamped returned envelop was mailed to 188 firms that initially met the sample selection criteria.

4.8. Implementation of Data Collection

The survey questionnaire for the thesis was developed over a period of time and the final questionnaire was quite different form the first draft. The survey questionnaire utilised in the study is shown in Appendix 3-1. Due to the cost and time constraints, mailed questionnaire method was used by the researcher for subsequent collection of

desired information from the entire defined population. However, in previous studies some of the major issues related to the control of measurement error should be discussed. The development of a reliable and valid data collection instrument, the identification of knowledgeable and confident key informants, and the choice of an accurate sampling procedure are all important procedures to reduce survey error. This section discusses some strategies included in the design of the study in order to reduce survey measurement error and non-response error.

Non-response error refers to the bias introduced to survey data by having a number of respondents lower than the sample size. Therefore, the observed sample score may be different from the true sample value for the variables being measured(Assael and Keon,1982). After examining different potential sources of non-response error, Delener(1995) suggests a set of twelve recommendations and strategies in order to help reduce non-response error. Some strategies were thought to be appropriate approach for the study. They included :

- (1) Telephone and mail pre-contacts. In this study telephone pre-contacts were used to confirm the name and position of the informants. Pre-contact letters which be shown in the Appendix 1 were sent.
- (2) Questionnaire layout and response time. The questionnaire needed to be easy to understand and respond in order to keep the interest of the informant. To deal with these issues, closed-ended questions were used to facilitate response rate. The questionnaire was designed as short as possible, without hindering the validity of the measures. The questionnaire included 55 questions(45 scale items and 10 general questions), which implied a 30 minute (approximately) response time.
- (3) Personalisation and confidentiality. Delener(1995) suggests that the personalisation of the letter and questionnaire and an assurance of confidentiality are positively associated with response rates(Delener,1995). A personalised letter was sent to selected sample of marketing managers, attached to a copy of the survey instrument (see Appendix 2 and Appendix 3-1). The personalised letter explained the nature of this study and asked for collaboration. In addition

these, confidentiality was assured by indicating that research results will be reported in aggregate form.

- (4) Telephone follow-ups. The use of follow-ups letter had been demonstrated as positively associated to responses rates. The follow-ups were scheduled as 7-10 days after mail out.
- (5) Second mailing. Five weeks after the initial questionnaire was delivered to the informants' offices, a new copy of the questionnaire was sent to the non-respondents, accompanying with new reminded letter (see Appendix 4).

Although qualitative interviews are useful in some marketing research, mail survey is often the only feasible data collection tool for research from the broad geographic area. Since the study is national wide in scope covering more than one city, data collection through telephone survey or personal interview is practically infeasible. Thus, mail survey is the only feasible option for collecting the data for the research.

Cooper and Emory (1995) suggests that response rates are higher if the letter are personalised to potential respondents. In the study, all personalised questionnaires were mailed to marketing managers. Otherwise, non-personalised letters and questionnaires were mailed to the head of marketing. In the study, both options were used for the data collection.

A personal cover letter, a questionnaire and a self-addressed return envelope are sent to each of the one hundred eighty-eight firms in the sample. One hundred eighty-eight firms were selected as the sample size for the following reasons. Assuming a fifty-percent response rate and a subject-to-variable ratio for reliable regression coefficients, the sample would be adequate to provide reliable regression coefficients(Stevens, 1986).

Following the suggestions from the literature(Dillman,1978; Sudman and Bradburn,1982; Cychota and Harrison, 2002), the following step were taken to maximise the response rate for the mail survey:

1. The questionnaire (shown in Appendix 3-1), a cover letter(shown in Appendix 2), and a self-addressed stamped envelope were mailed to the marketing managers of 188 firms on 25 October,2002.
2. Five weeks later, a personally signed reminder letter(shown in Appendix 4) and replace questionnaire were sent to all non-respondents along with another self-addressed envelope on 2 December,2002.
3. The cut-off date for receiving the returned questionnaire was 31 December,2002. Personal interview and telephone survey were followed for securing the data quality and reasonable response rate in January 2003.

Data was coded, permitting checking of both data and results for correction of error. Questionnaire data were manipulated into graphs, descriptive statistics and statistical analysis. The study used different statistical techniques including pooling regression and multiple regression analysis to answer research question. The empirical results will show whether the research analysis refute or confirm the previous theory and research hypotheses.

4.9. The Reliability and Validity of the Measures

4.9.1. Scaling Reliability

Reliability refers to the extent to which measures are without error(Nunnally, 1978). Peter(1979) has reviewed three common techniques for assessing reliability : (1) test-retest, (2) alternative form, and (3) internal consistency. Generally, the researcher is interesting in the correlation between two (or more) measure of the same construct, with high correlation indicative of reliability.

Using test-retest, the same measures are simply administered at different times(Peter,1979). This is not appropriate for the current study because the data are collected at one time even if the research intends to obtain time series observation. Furthermore, all respondents are ensured confidentiality. In measure of alternative forms reliability, different measures are used for the same construct at the same or different times (Peter, 1979). Again, this method is not feasible due to the limited number of available respondents.

Internal consistency reliability is assessed by correlating split-halves of the items used for a particular measures(Peter, 1979). The study uses Cronbach's (1951) coefficients alpha to determine reliability of measures. This is the most accepted formula for assessing the reliability of multi-item measurement scales like those utilised in the study(Peter,1979,1981). The alpha coefficient is utilised all possible combinations of measurement item split-halves to calculate reliability for scales with three or more items(Peter, 1979). In the case of a two-item scale, there is only a single split-half.

4.9.2. Scaling Validity

Reliability is a necessary but not sufficient condition for validity(Didow and Franke,1984). Validity is described as the degree to which a measure scale measures what it is intended to measure (Nunnally, 1978) and the extent that it is free from unsystematic sources of error(Didow and Franke,1984). Three separate types of validity are suggested as being necessary in any research study; (1) content validity (2) predictive validity, and (3) construct validity(Nunnally, 1978).

Churchill(1988) described content validity as the adequacy with which the domain of a construct is captured by a measure. The assessment of content validity has been described as mainly subjective and based on judgement(Green, Donal, and Albaum, 1988; Hardesty and Bearden, 2004). Churchill (1979) suggests an indicator to be content valid to the extent that measures represent the body of literature surrounding the construct. Thus, intensive literature review is necessary to explicate the constructs and to address content validity. The study addresses content validity through an extensive review of the literature, which is presented in the Chapter 2 and Chapter 3.

Predictive validity is described as the ability of a construct to estimate behaviours which are external to the measuring instrument itself(Nunnally, 1978, P. 87). This validity is assessed by correlating a measure with an objective measure of the same construct(Nunnally, 1978). Predictive validity is not assessed in the study since objective external measures are not available for the research constructs.

Construct validity is described as the extent to which measures represent what we

think they measure(Bohrnstedt, 1970). Peter(1981) recommends that construct validity must be inferred because it cannot be directly assessed. Additionally, Peter(1981) suggests that construct validity can not be ascertained in one study, but must be investigated over time. Thus, any statement about construct validity based on a single study is likely to be suspect.

Three methods are commonly used to assess construct validity (Churchill, 1979; Nunnally, 1978); (1) the inter-correlations among the individual items(included as measures of a construct) and with the scale as a whole, (2) the convergence and discriminance of constructs, and (3) through the use of factor analysis and reliability assessments. These methods attempt to determine if a measure what it is intended to represent.

4.10. Principal Component Analysis(PCA)

In the study the rationale of employing principal component analysis(PCA) is that it is a technique for extracting variables which is highly useful and popular in both behavioural and business research(Jolliffe, 2002). In principal component analysis(PCA), the derived dimensions(components) are actual linear composites of the original variables (Jolliffe, 2002). Principal component analysis(PCA) with principal component extraction and varimax rotation will be employed on the analysis to uncover the essential factor of each category of explanatory variables. The study will present how many factors extracted from the analyses and the preliminary labels assigned to them.

The research employs principal component analysis(PCA) to reduce a large set of correlated variables to a small number of uncorrelated hypothetical components (Kim and Mueller, 1999). It is a method of transforming a given set of observed variables into another set of variables, namely, common factors. In general, PCA techniques can be used to reduce the dimensionality of the set of variables and describe the variables in the original data set in terms of their scores on a much smaller number of variables with as little loss of information as possible (Jolliffe, 2002).

Each principal component in the final solution has large correlation with a few original variables and essentially zero correlation with the remaining variables in the data set (Jackson and Edgar, 1981). The derived components can be considered as providing a description of the structure of the original set of variables (Jolliffe, 2002). In the study the case of perfect multicollinearity is going to be discussed further since the process of selecting the independent variables assured that perfect multicollinearity might exist.

Principal component analysis usually produces result that do not differ markedly from those of common factor analysis (Kim, 1978). Principal component analysis avoids the necessity of estimating communalities (the terms in the principal diagonal of the correlation matrix) and selecting one of a number of methods of varying theoretical and practical validity for estimating them (Cureton et al, 1983). In their presentation of principal component analysis (PCA), Jolliffe (2002, p 262) stated that :

An effective theoretically and empirically based method is available for determining the number of common factors. Actually, much of the development here can be applied to common factor analysis as well as component analysis. However, component analysis is somewhat neater mathematically, and produces results that are more objectively interpretable than those of common factor analysis.

In this study, principal component analysis technique is to identify the major marketing environment and strategy factors that characterise the property firms. The VARIMAX rotation method is utilised in performing principal component analysis. The SPSS software is utilised to implement the principal component analysis procedure. Thus, a comprehensive analysis of the meanings of the factors and corresponding items will be to purify the uncovered factors. At the completion of the analysis, some variables will be dropped from their respective factors. The study identifies some factors in the operational model on the basis of whether factors are consistent with previous literature review, the theoretical framework and empirical evidence and whether factors contribute to the explanatory power of the proposed model.

4.11. Statistical Approach

The estimation of a useful model requires not only a good theoretical base, but econometric method makes the best use of the available data. Although time series approach can investigate the long-term, lagged or leading impacts of marketing environment, strategies and performance and recursive relationship rather than causal relationship(Dekimpe et al, 2000), the data available issue has hampered the use of time series approach in the study. In the study sufficient observation did not exist to estimate a time series equation because historical marketing environment, strategy and performance variables were not collected and published for meeting research objectives. Even as PIMS database set grows over time, it is difficult to conduct time-series analyses for each SBU since the number of time series observation is still limited(Ramaswamy et al, 1993).

4.11. 1. The Choice of Statistical Approach

Another alternative statistical approach is to develop a cross-section equation in the study. However, most previous marketing studies demonstrate that cross-section studies can not investigate the dynamic marketing strategies development. Apparently, path analysis, linear structural relations (LISREL) or traditional regression did not be employed in the studies because these approach might not be enough to construct and test dynamic model for explaining the relationship among marketing environment, strategy and performance construct.

The proposed integrated model of performance incorporates components from all three paradigms and thereby provide an opportunity to test alternative explanations of business performance. There are two objectives of data analysis should be achieved : (1) to test the statistical significance of the different independent variables posited as predictors of the financial and market performance, and (2) examine the recursive relationship among marketing environment, strategy and performance construct, either a structural equations methodology such as LISREL or panel regression could have been utilised. Given the nature of the proposed research models to be tested, while the ideal methodology would have been structural equations, but the following two reasons explain the choice of panel regression(over structural equations) to test the proposed hypotheses.

(1) Sample size issues. A number of authors have attempted to determine the sample size that is appropriate for the use of structural equations methodology such as LISREL. Anderson and Gerbing(1988) used a Monte Carlo simulation to investigate the large sample properties of structural equations and focus that a sample size of 150 or more is required to obtain parameter estimates that have standard errors small enough to be practical use. Further, Hoelter(1983) found that as a tentative rule of thumb, a sample size greater than 200 is required in order to estimate a non-trivial fit for structural equation models. In the thesis since the usable sample size was only one hundred and two, structural equations appears to be an inappropriate methodology to use.

(2) Presence of formative and reflective indicators. Both formative and reflective indicators were used in this study to measure the constructs of interest. Structural equations methodology assumes the presence of reflective indicators, and therefore it may not be appropriate to utilise techniques such as LISREL when formative indicators are used(Bagozzi and Fornell,1982). In the marketing literature a number of recent empirical studies which have utilised formative indicators have reached a similar conclusion(Heidi and John, 1990; Bucklin and Sengupta,1993).

The research proposes an alternative empirical pooling approach when spare time series data and available for a large number of cross-sections. Pooling and multiple regression analysis are thought to be consistent with the objectives of the research. The research uses pooling and multiple regression based on the two rationale. First, the research intends to evaluate the relative importance and significance of network relationship of marketing environment, strategy and performance construct. In addition, the purpose of the research deals with “ future” marketing environment and strategies by examining feedback effects.

4.11.2. Pooling Regression

The basic pooling and linear regression model developed at the first stage of the estimation process can be expressed :

$$y_{it} = \alpha' + \beta' X_{it} + u_{it} \quad i = 1, \dots, N, \quad t = 1, \dots, T,$$

Where subscript i denotes the across individual observations (cross section dimension- companies), and t denotes the time (time series dimension).

$i = 1, 2, \dots, N$, N = the number of SBUs; cross-sectional units

$t = 1, 2, \dots, T$, T = the number of years; time periods

α' is 1×1 scalar constant (unknown constant)

X_{it} is the value of the (i t) independent variable for the cross section i in time period t

β' are $K \times 1$ vectors of constants and are expected to be estimated coefficients.

Y_{it} is $K \times 1$ vectors of dependent variable (the value of the dependent variable for the firm i in the period t).

u_{it} is error term associated with the observation on cross-section i in the time period t and independently distributed over i and t and normally distributed $N \sim (0, \sigma^2)$

(mean zero and variance). The study used STATA software to carry out data analysis.

In econometrics, the word " panel " refers to a research design in which respondents answer the same questions at least twice, with the reporting occasions separated by a suitable interval of time(Golany, et al., 1991). Gornany et al,(1991) also argues that continual-wave panels are qualitatively different from " econometric-type " panels in the significant marketing research and consumer panels.

In the study the questionnaire data can be pooled to combine cross-sections (SBUs) and time series (yearly), the number of observations will increase substantially. Consequently, pooling cross-section and time series (panel data) can give the research a large number of sample observations and increase the reliability of parameter estimates by increasing the degree of freedom and decreasing the standard error of the parameter estimates(Hsiao,1995 ; Ramasway et al ,1993).

In the marketing literature pooling regression analysis had been employed by Venkatrman and Prescott(1990) and Ramasway et al(1993) to examine marketing mix elasticities with PIMS data. They suggest that pooling the time series and cross

section data is sparse in previous marketing strategy studies, so a latent-pooling method is proposed to estimate and test linear regression models empirically for examining heterogeneous cross section data. In general, the pooling procedure is useful in obtaining more efficient parameter estimates while cross-section parameters can be assumed to remain constant over time. Pooling is also useful here in that it allows the inclusion of both cross-section and time-series-related explanatory variables in the regression (Pindyck and Rubinfeld, 1998).

Following Venkatraman and Prescott's (1993) suggestion, pooling regression analysis is better able to identify and measure effects that are simply not detectable in pure cross-sections or pure time series data and allow some economic research to construct and test more complicated behaviour models. The study develops an empirical model to explain the dynamic relationship of marketing environment, strategies and performance variables and test this model using cross-sectional/time-series regression (panel data) technique.

4.11.3. Multiple Regression

All performance variables are lagged one period for examining feedback effect. Lagging the independent variables is also desirable because, for ex-ante forecasts (forecasts beyond present time), it eliminates the need for a forecast of independent variables. Thus, lagging has the advantage of eliminating one source of forecasting error - error associated with conditional forecast(Pindyck and Rubinfeld, 1998). Second, the purpose of the research is to develop and estimate some equations for explaining the dynamic effects of marketing environment, strategy and performance. Regression model is appropriate choice. In addition, regression analysis is based on the broader methodological viewpoint of the research, namely, the predictive ability criterion, and can provide future managerial and theoretical implications.

One of the analytical tools used to address the research questions in this study was multiple regression. The statistical procedure models the relationship between a given dependent variable(Y) and a set of independent variables (X1, X2, X3 X4 ...Xn) in the following manner:

$$Y = a + b_1 X_1 + b_2 X_2 + \dots + b_k X_k + e$$

Y : value of the dependent variable

X : value of the respective independent variable

a : intercept

b: regression coefficient

e: error term

The general regression model(lagged) is dependent on the following assumptions (Lewis-Beck, 1980, p.26) :

1. No specific error, for example, the relationship between the independent variables and the dependent variable is linear, no irrelevant independent variables have been included.
2. No measurement error, for example, the dependent and independent variables have been accurately measured.
3. Zero mean for the error term, for example, for each observation, the expected value of the error term is zero.
4. Homoskedasticity, for example, the variance of the error term is constant for all values of the independent variables.
5. No autocorrelation, for example, the error terms are uncorrelated.
6. Independence, for example, each independent variable is uncorrelated with the error term.

4.12. Difference in Pooling and Multiple Regression

Pooling the time-series and cross-section data may complicate the nature of the error term. The error term may consist of time-series error component, cross-section error component and a combination of both. The error may involve serial correlation and heteroscedasticity. The error term has to be examined for possible complications (this examination is part of the process by which the assumptions of the OLS are tested). In the dynamic panel data model correlation of the errors association with different observations indicates the presence of serial correlation and may be the result of time-series serial correlation, cross-section correlation , or a combination of both. Absence of a constant variance for all the error term implies heteroscedasticity.

Both serial correlation and heteroscedasticity are problems that have to be corrected, if present.

4.12.1. Heteroskedasticity

In the study it is not certain whether or not the assumption of homoscedasticity(the error terms have a constant variance) is satisfied. Heteroskedasticity refers to the variance of the errors associated with different firms and different years for the same firms may be different. It is highly possible that heteroskedasticity will exist in the panel data model which combining cross section and time series(Ramaswamy, et al,1993). The research should detect and explain heteroskedasticity issue which is a systematic pattern in the error terms where the variances of the errors are not constant across individual and over time. Table 4.6. illustrates the difference of heteroskedasticity and homoskedasticity.

Table 4.6. The difference of heteroskedasticity and homoskedasticity

Error term model	$u_{it} = \mu_i + \lambda_t + v_{it}$
Zero mean	$E(u_{it}) = 0$
homoskedasticity	$Var(u_{it}) = \sigma_u^2 + \sigma_\lambda^2 + \sigma_v^2$
Heteroskedasticity	$Var(u_{it}) = \sigma_{ui}^2 + \sigma_{\lambda t}^2 + \sigma_{vit}^2$

When heteroskedasticity is present, the OLS parameter estimates are still unbiased and consistent but are not efficient. Heteroskedasticity does not bias the OLS regression estimates since their mean is still zero. Also, estimated formulas give incorrect standard errors for least squares analysis. Consequently, confidence intervals and hypothesis tests are wrong because of using incorrect standard errors(Baltagi, 1995). According to Baltagi's(1995) statement we can understand that the least squares estimator is no longer the best liner unbiased estimator (BLUE) when heteroskedasticity exists.

In the study the plots of residuals versus fitted values of each variables indicate whether heteroskedasticity is present and if the error variance changes with the level

of any one of the independent variables. In general, it is very likely that the error variance is related to the values of one of the explanatory variables in the regression model. Theoretically, if heteroskedasticity is a problem in the study(if different variances are associated with different observations), it can be attributed to the some different independent variables.

The argument suggests that then null hypothesis of homoscedasticity, versus the alternative hypothesis that the error variance is directly related to the values of some independent variables, has to be tested. Two approaches can be employed to examine the heteroskedasticity problem. One approach is to use residuals plots for providing information on the nature of heteroskedasticity to aid in detecting and correcting it. Another approach is to use Goldfeld- Quandt test to check for presence of heteroskedasticity.

The Goldfeld- Quandt requires data to be ordered by the magnitude of some variables(any variables are thought to be related to the error variance). An arbitrary number of observations are deleted from the middle of the data. This deletion divides the rest of the data into two portions. Two separate multiple regressions are run, one with each portion of the data. The quotient of the two residual sum of squares associated with each regression (with the greater residual sum of squares in the numerator) follows an F-distribution with allows the test of the null hypothesis of homoscedasticity.

If there is no sign of the problem, the correction was not required. However, if heteroskedasticity appears to be a problem, the research will calculate “ consistent” standard errors in the presence of heteroskedasticity by weighting observations by the estimated variance of the disturbance term(Baltag,1995). A technique known as weighted least squares can be used to correct for it.

4.12.2. Serial Correlation

The assumption that the error terms are not serially correlated may not be reasonable in the study. Serial correlation is defined as the observations may not be independent of one another or errors associated with different observations may not have zero

correlation. As in most cases dealing with business data, only the possible existence of the first-order serial correlation problem is investigated - the problem in which the error associated with each observation is directly correlated with that of its immediately preceding observation. It is still assumed at this point that observations have a constant variance. Of course, the assumption is subjected to heteroskedasticity test(Ramaswamy, et al,1993).

Perhaps the above assumption that is most commonly violated serial correlation($Cov(u_{it}, u_{jt}) \neq 0$), the research also needs to examine whether serial correlation might be a problem. In this study marketing environment, strategies and performance data are collected over time as well as across firms, the present observation may tend to be correlated with the preceding observation values and some observations of marketing strategies and performance variables may be influenced by other major firms. Serial correlation implies that observations are no longer independent.

If serial correlation exists in the error component disturbances, the OLS estimates remains unbiased and consistent but is not efficient. In other words, the estimated parameters do not have the small variance. As a result, the standard errors can be highly misleading, and thus inferences from confidence intervals and significant test can no longer be trusted. In short, ignoring serial correlation could lead to seriously flawed inferences(Baltagi, 1995).

To test the null hypothesis whether serial correlation does exist, the Durbin-Watson test is used in the study. The test is meant to complement the information obtained from the plots of residuals regarding the absence of serial correlation. Basically, the D-W test involves computing a statistic, d , based on the residuals from the OLS regression at the first stage of the estimation process. The following table gives a summary of the D-W test, where d_l and d_u are the lower and upper limits of the statistic given in the Durbin-Watson Table 4.7.

Table 4.7. Range of the Dubin-Watson Statistic

Value of d	Result
------------	--------

$4 - dl < d < 4$	negative serial correlation
$4 - du < d < 4 - dl$	inconclusive
$2 < d < 4 - du$	no serial correlation
$du < d < 2$	no serial correlation
$dl < d < du$	inconclusive
$0 < d < dl$	potential serial correlation

Source : Pindyck and Rubinfeld (1995)

Another approach is called first order serial correlation where the residual at a time period t and across firm i is given by

$$u_{it} = \rho \times u_{i,t-1} + \varepsilon_{it}$$

Where ε_{it} is a random disturbance term, and

ρ indicates the correlation between the residuals for the residuals for the preceding time period $t-1$ and the current t .

$$|\rho| < 1$$

The value of ρ is unknown, so the study must find some approach to estimate it.

In the first step the research try to acquire the $u_{it}, u_{i,t-1}, u_{i,t-2} \dots$ values, I could estimate

$$u_{it} = \rho \times u_{i,t-1} + \varepsilon_{it}$$

Second, the study uses least squares to estimate the model:

$$y_{it} = \delta y_{i,t-1} + \alpha + \beta' X_{it} + \gamma' Z_t + u_{it}$$

The residuals from this estimation are :

$$\hat{u}_{it} = y_{it} - \delta y_{i,t-1} - \alpha - \beta' X_{it} - \gamma' Z_t$$

Next, estimate the following equation by the least squares :

$$\hat{u}_{it} = \rho \times \hat{u}_{i,t-1} + \hat{\varepsilon}_{it}$$

Once ρ is known, the research tends to test the following hypothesis :

$$H_0 : \rho = 0$$

$$H_1 : \rho \neq 0$$

If the null hypothesis is accepted, this implies that serial correlation does not exist in the model. If there is no indication of serial correlation in the study, there will be no need to correct it.

4.12.3. Correlation Procedure

However, if the null hypothesis is rejected, the research will use the estimated ρ to purge the serial correlation from my model $y_{it} = \delta y_{i,t-1} + \alpha' + \beta' X_{it} + \gamma' Z_t + u_{it}$. A procedure known as generalised differencing is used as a corrective measure. The study will transform my equation by multiplying both sides of our original equation by ρ .

Basically, the procedure involves lagging the original model one period, multiplying both sides of it by ρ , subtracting it from the original equation, and finally applying OLS to the resulting model. The use of generalised differencing equation does not change the parameters; it only results in the transformation of data in such a way that the resulting error terms have zero covariances. To accomplish the above procedure, the study needs estimates of ρ , the first-order serial correlation. This value can be obtained by the use of Durbin procedure.

$$\rho \times y_{it} = \rho \times \delta y_{i,t-1} + \rho \times \alpha' + \rho \times \beta' X_{it} + \rho \times \gamma' Z_t + \rho \times u_{it}$$

and subtracting this from the original model

$$y_{it} = \delta y_{i,t-1} + \alpha' + \beta' X_{it} + \gamma' Z_t + u_{it}$$

$$-) \rho \times y_{it} = \rho \times \delta y_{i,t-1} + \rho \times \alpha' + \rho \times \beta' X_{it} + \rho \times \gamma' Z_t + \rho \times u_{it}$$

and obtain

$$y_{it} - \rho y_{it} = (\delta y_{i,t-1} - \rho \times \delta y_{i,t-1}) + (\alpha' - \rho \times \alpha') + (\beta' X_{it} - \rho \times \beta' X_{it}) + (\gamma' Z_t - \rho \times \gamma' Z_t) + (u_{it} - \rho \times u_{it})$$

$$y_{it} - \rho y_{it} = \delta y_{i,t-1}(1 - \rho) + \alpha'(1 - \rho) + \beta' X_{it}(1 - \rho) + \gamma' Z_t(1 - \rho) + u_{it}(1 - \rho)$$

The new parameters and error term satisfies the standard regression assumption

$$y^*_{it} = \delta y^*_{i,t-1} + \alpha^* + \beta^* X_{it} + \gamma^* Z_i + u^*_{it}$$

4.13. Existing Pooling Regression in the Marketing and Consumer Behaviour

The study reviews marketing research and consumer behaviour of this pooling regression, focusing on relevant data dimensions and the substantive findings of each study shown in the Table 4.8. The critical shortcoming of employing this approach is summarised in the Table 4.9.

Table 4.8. Application of Pooling Regression Methodology in Marketing and Consumer Behaviours.

Author	Swait and Erdem, 2002
Cross-section units	594 households(2024 purchases), 59 SKUs
Time periods	January 1990 - June 1992 (monthly)
Dependent variable	Consumer utility
Independent variable	Brand, product attributes, current sales promotion mix, purchase feedback or loyalty, SKU price consistency, SKU display and feature consistency, SKU availability consistency, brand price variability, brand display, feature consistency, brand availability consistency
Data resource(s)	Information Resources Inc., secondary data
Contribution	Sales promotion mix consistency over time affects both consumer utility mean and scale and thus consumers' choices and brand shares. Lack of sales promotion mix consistency is generally deleterious consumer brand evaluations through decrease to average valuations and decreases in scale.
Model characteristics	Time vary-parameters model

Author	Gatignon and Hanssens, 1987
Cross-section units	43 recruiting districts, N=1050
Time periods	1976-1978 (monthly), 36 observations
Dependent variable	SALES (contracts signed for the delayed-entry)
Independent variable	Unemployment rate, dummy variables(quarters)(3), GI bills(2), number of inquiries, total advertising expenditures(national and local), number of recruiters, number of immediate-entry contracts
Data resource(s)	USA Navy
Contribution	Contract signed increases with advertising support and with environmental

	hostility
Model characteristics	Modelling marketing interaction

Author	Bass and Wittink, 1975
Cross-section units	48 furniture and household appliance sales for each US states
Time periods	1948-1970(annual) , 23
Dependent variable	Furniture and household appliance sales
Independent variable	Population, retail sales
Data resource(s)	" Sales Management, Special Issues(1949-1971)" (secondary data)
Contribution	Pooling under the constant assumption would be a serious mistake and the biased estimates based on pooled data would be grossly misleading. Before a decision is made to pool, however, it is important to test homogeneity. Coefficients are partially or entirely random.
Model characteristics	Pooling issues and methods evaluation

Author	Ramasway et al., 1993
Cross-section units	548 business units
Time periods	1975-1979 (annual) , 5
Dependent variable	Sales, marketing mix variables
Independent variable	Demand characteristics (7), business scope(3) and order of market entry(2)
Data resource(s)	PIMS annual database (secondary data)
Contribution	A set of marketing mix elasticities and intertemporal (time-variance) can be identified for each marketing mix pool of SEUs. Demand characteristics, business scope and order of market entry have mixed effects on the pool membership.
Model characteristics	Pooling Approach

Author	Bell et al, 2002
Cross-section units	8 categories and 4313 stockkeeping units (SKU)
Time periods	2 years (yearly)
Dependent variable	Equilibrium frequency distribution and the likelihood of charging the high price, promotion depth.
Independent variable	Consumption effect in the category-level , market share
Data resource(s)	Scanner data (secondary data)
Contribution	The flexible consumption effect causes more intense price competitions.
Model characteristics	Equilibrium analysis model

Author	Mela, et al, 1998
Cross-section units	105,515 store visits (3866 purchase , 109 household)
Time periods	8 years (quarterly)
Dependent variable	Purchase quantity and utility
Independent variable	Category price, promotion and inventory
Data resource(s)	Information Resource Inc. (secondary and scanner data)
Contribution	Consumers' stockpiling behaviour has changed over the years. The increased long-term exposure of households to promotions has reduced their likelihood of making category purchase on subsequent shopping trips.
Model characteristics	Varying parameter model

Author	McCann and Reibstein, 1985
Cross-section units	30,000 people each year
Time periods	1997-1990 (annual), 14 year
Dependent variable	Product demand
Independent variable	Physiological factor, social factor and situational factor
Data resource(s)	Survey by Simmons Research Inc. (secondary data)
Contribution	Based on the panel data the study forecasts that the purchase behaviour of individuals in a submarket remains constant over time, but that the number of people in the submarket changes over time. The second level analysis involves a differential scheme for pooling cross sections for each variable in the model.
Model characteristics	Forecasting model

Author	Kumar et al.,2000
Cross-section units	21 industries and 100 firms
Time periods	January 1976 to June 1984 (monthly), 102 observations
Dependent variable	Return for the stock
Independent variable	Supply of money(3), cost of money(3), market return index(1)
Data resource(s)	Survey of Current Business and Business Conditions Digest, secondary data
Contribution	The presence of idiosyncratic industry effect in the market is also demonstrated. Accordingly, the replication of the analysis with another sample from a different time periods yields similar results.
Model characteristics	Time varying parameters model

Author	Foekens et al, 1999
Cross-section units	3 brands of consumer food product, 28 stores, U.S.A.
Time periods	52 weeks

Dependent variable	Unit sales
Independent variable	Price promotion variables (10)
Data resource(s)	A.C. Nielsen
Contribution	The brand's own non-price promotional response parameters are related to the time since the most recent promotion for that brand as well as for other brand
Model characteristics	Varying parameter model

Author	Heilman et al., 1991
Cross-section units	6928 purchase
Time periods	January 1992- December 1995
Dependent variable	Brand preferences
Independent variable	Choice behaviours(8)
Data resource(s)	A.C. Nielsen, secondary data
Contribution	A deeper understanding of such choice dynamics can help managers design marketing programmes that evolve with their customers over time. Results finds that the dynamic choice processes of consumers new to a market is significantly related to product experience and learning
Model characteristics	Time varying parameters

Author	Ailawadi et al., 1999
Cross-section units	3 Categories (yogurt , ketchup, saltine crackers), 650+645 households, total observations = 8857+8618
Time periods	1984-1997 (annual), 14 years
Dependent variable	Purchase probability of household h for brand i at purchase occasion t
Independent variable	Marketing mix, preference of household, response parameter of household
Data resource(s)	A.C. Nielsen's ERIM and IR, secondary data
Contribution	Research finds that (1) feedback and preference heterogeneity contribution significantly to fit and forecast accuracy (2) estimated response parameters vary significantly across methods, but the corresponding elasticities do not. (3) large segments are fairly stable in their preference and elasticity structures but small segments are much less.
Model characteristics	Forecasting model

Author	Van Heerde et al, 2000
Cross-section units	Tuna brand (3), tissue brands(6), (9 brands)
Time periods	52 weeks
Dependent variable	Unit sales of brand

Independent variable	Price promotion and non-price promotion variables(10)
Data resource(s)	A.C. Nielsen, secondary data
Contribution	Significant dynamic promotion effects exist(eight of nine brands) and the post-promotion dip paradox does not exist.
Model characteristics	The study uses Almon model, exponential model and unrestricted model. The author suggests that unrestricted model is the closet to the best model results.

Author	Neslin,1990
Cross-section units	Seven brands, 14,060 purchases
Time periods	58 weeks
Dependent variable	Brand market share among category
Independent variable	Coupon promotion(5) and price variable
Data resource(s)	Burke Marketing Service, Ins, scanner data
Contribution	Coupons have a pronounced effect upon market share and the effect varies from brand to brand.
Model characteristics	Market response model

Author	Moore and Russel,1987
Cross-section units	Three brands, nine grind type, 597 households
Time periods	3 purchase period intervals (1-month periods(16), 5 3-4 months, 8 month periods)
Dependent variable	1 : relative distance from ideal points 2 : market share
Independent variable	1 : market share, brand price, advertising share, 2 dummy 2: relative distance from ideal points, 2 dummy
Data resource(s)	Burke Marketing Service, Ins, scanner data
Contribution	The study constructs a time series of joint space maps and integrate these maps into market response model.
Model characteristics	Market response model

Author	Givon and Horsky,1979
Cross-section units	7500 households
Time periods	3 years(bi- year)
Dependent variable	Brand choice
Independent variable	Purchase event in different periods
Data resource(s)	American Dental Association, secondary data

Contribution	No single model can be considered preferable in describing consumers' purchasing behaviour for all brands. However, LLM was shown to be a better descriptor of consumers' behaviour.
Model characteristics	Selecting the best models from Bernoulli, Markov and Linear Learning model(LLM)

Author	McCann,1974
Cross-section units	29 brands
Time periods	1962-1966, 5 years (bi-month) 29 observations
Dependent variable	Market share
Independent variable	Advertising share, price and dealing activity
Data resource(s)	Market Research Corporation of American(MRCA), secondary data
Contribution	Evidence is found for considerable differences in levels of response. Differences of among market segments can be measured and be potentially useful to marketing management.
Model characteristics	Market decision model

Author	Hagerty et al, 1988
Cross-section units	724 SBUs
Time periods	6 years
Dependent variable	Quality, price, advertising, promotion, sales force
Independent variable	Type of business(2), life cycle(2), purchase frequency(2)
Data resource(s)	PIMS
Contribution	The research finds that the extent of different structural characteristics of the industry and market influence the magnitude of elasticities.
Model characteristics	To examine pooling regression model issues and implications

Table 4.9. The shortcoming in the pooling regression research

Pooling the data before homogeneity test	Mela et al, 1998; Gatignon and Hanssens, 1987; Swait and Erdem,2002; McCann and Reibstein,1985; Bell et al,2002; Roy et al,1996; McCann,1974; Ghosh et al,1984; Givon and Horsky,1979; Winer,1987; Kumar et al,1999; Heilman,2000; Neslin,1990
Fails to consider the possible random and dynamic coefficient	Ailawadi et al, 1999; Bell et al,2002; Roy et al,1996; Kumar et al,1999
Fails to present the well-organised error term,	Mela et al, 1998; Hagerty et al,1988; McCann and

serial correlation and heteroskedasticity	Reibstein,1985;n Roy et al,1996; Ghosh et al, 1984; Moore and Winer,1987; Kumar et al,1999; Heilman,2000;
Fails to detect outliers	All
Fails to consider possible feedback effect	All except Moore et al,1987

In the previous models using pooling regression several factors have contributed to the shortcoming including homogeneity test issue, possible random and dynamic coefficient, the nature of error terms, outliers and possible feedback effect. The research attempts to collect time series and cross section data to overcome the shortcoming of pooling regression models.

4.14. Multicollinearity and PCA

At the research stage, the assumption of homoscedasticity and no serial correlation have been justified or corrected. The present section deals with multicollinearity problems and their adverse effects. In addition, PCA of a reducing such consequences is discussed. It should be emphasised that the examination and elimination of multicollinearities do not comprise a separate stage of the estimation process. In stead, it is used in conjunction with the last stage of the estimation process and the variable selection procedure.

The existence of multicollinearity may result in “unreliable” estimates of parameters(Bass and Wittink,1978). Multicollinearity exists if one (or more) of the independent variables are related to one (or more) of the other independent variables. If a linear relationship among certain independent variables contains no random fluctuations, a “perfect multicollinearity” is present. The remedy is straight-forward since all that needs to be done is to purify some independent variables involved in perfect multicollinearity. In the other words, if random fluctuations are present in a given relationship among certain independent variables, the “multicollinearity” problem is said to exist.

The coefficients of the variables that do not involved in multicollinearity are usually well estimated. As far as the variables involved in multicollinearity problem, several

problems needed to be examined. First, the estimators have large variances. Particularly, the estimators are not reliable. The variability means that the OLS regression coefficients cannot be interpreted. Second, the estimators are highly correlated. This correlation suggests that if one of the estimators is overestimated, it is likely that another estimators are underestimated. Third, the sign of the individual coefficients may be inconsistent with known theoretical relationships. Finally, when variable selection is involved, an inappropriate subset may result because the variables are often deleted incorrectly(Mansfield,1997).

To detect possible multicollinearity problems, the latent roots of the correlation matrix of the original regressor variables are examined. If all the regressor variables are independent of one another, then all the latent roots are equal to 1. Small latent roots (such as latent roots near zero) indicates multicollinearity problems. To identify the independent variables that are involved in a multicollinearity problem, the latent vector associated with that small latent root is inspected. In general, “ the linear combination of the standardised original regressor variables weighted by the corresponding elements in the latent vector associated with a very small latent root is the linear combination that defines the multicollinearity”(Mansfield,1997).

Although no biased estimation technique is uniformly better than all others, principal component analysis (PCA) perform the best overall(Jolliffe,2002). The study utilises the PCA in the variable purification process. The PCA yields ordinary least-squares and principal component regression estimates of the parameters, if multicollinearity is present. The special feature of the PCA is that original X-variables can be deleted from the model after the effects of the multicollinearity have been removed by deleting principal components associated with small latent roots (eigen values). The PCA is capable of performing a backward elimination of the regressor variables, to be utilised in the last stage of the estimation process.

4.15. Sample Characteristics

4.15.1. Response Rate

One hundred and eighty-eight(188) questionnaires were sent out. A summary of the response to the questionnaire used in this study is shown in Table 4.10. Despite follow-up mail and telephone efforts, four (4) questionnaires were undelivered because the addressee companies have been liquidated or because new addresses were not known. Sixty-two(62) companies wrote or called to decline participating in the study. Non-response to a mail survey questionnaire may depend not only on the company policy but also on a number of factors including the extent to which the potential respondents are interested in the survey or has the time to fill out the questionnaire. Reviewing the received responses resulted in the rejection of five (5) responses because respondents had conflicts in their reply to these validity statements. Fifteen (15) returned questionnaires were discarded because many or all items were left blank, or because respondents provided only partial replies that could not be used for the purpose of the study. When few items were not answered, attempts were made to contact the respondents by phone. A total of one hundred and two (102) usable questionnaires were returned, representing a response rate of 54.3%.

On the basis of returned mail and correspondence from target companies, four (4) questionnaires were classified as non-deliverable. A returned questionnaire was eliminated from sample(classified as not valid sample) if the respondent indicated that the questionnaire was inappropriate for his or her organisation. In addition, a questionnaire was classified as incomplete if any key section was not completed. Most of the response sample is engaged in diverse product marketing businesses, but all the response sample used residential property businesses to fill out the questionnaire. However, the response sample can increase the generalisability of the study findings in the residential property marketing businesses.

Table 4.10. Response Rate Analysis

	Number	Percent
Total mail out	188	100
Undelivered	4	2.1
No Responses or companies refused to participation	62	32.4

Received questionnaire	122	
Unusable returns (or incompletd questionnaire)	20	11.2
Usable returns (completed questionnaire)	102	54.3

4.15.2. Business Information

1.Geographic Distribution

Table 4.11. Shows the distribution of surveys of respondents by regions. Response rate were; Chenghwa, 100 percent, Taoyuan, 80 percent, Kaohsiung, 59.45 percent, Taichung, 55.17 percent, Taipei, 52.57 percent, Pingtung, 50 percent, Tainan and Hsinchu, 33.33%. Yulin, Taitung and Chiya did not respond at all. Fortunately, these three regions represent 3 respondents or 1.6 percent of the intended survey sample. The SBUs of the survey companies are located around the Taiwan major cities and regions almost the entire nation. Although 88% of company headquarters were concentrated on the three major metropolitan area : Taipei(50%), Taichung(15.7%) and Kaohsiung(21.6%), property industry normally is classified into be high competitive in the prime location and city. On the positive side, the study sample is likely to increase the generalisability of the findings.

Table 4.11. Distribution of Surveys of Responses by Regions

	Total Sample Surveys	Survey Responses	Unusable Responses	Response Rate
Taipei (1)	97	51	12	52.57%
Taichung (2)	29	16	2	55.17%
Kaohsiung (3)	37	22	3	59.45%
Tainan (4)	3	1	1	33.33%
Hsinchu (5)	6	2	1	33.33%
Taoyuan(6)	10	8	1	80%
Pingtung (7)	2	1	0	50%
Chenghwa (8)	1	1	0	100%

Yulin	1	0	0	0
Taitung	1	0	0	0
Chaiyi	1	0	0	0
Total	188	102	20	54.26%

Total cases = 188

2. Year in Operation

Almost third-quarter of companies responding have been in operation for 10 years or more. The spread of responding companies' year in operation from 2 to 31 years was considered to have covered the data collection of time series, so the study excluded those new established companies (see Table 4.12.).

Table 4.12. Year in Operation of Respondent Companies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 year or less	0	0	0	0
	3 to 5 years	7	6.9	6.9	6.9
	6 to 10 years	19	18.6	18.6	25.5
	11 to 15 years	45	44.1	44.1	69.6
	16 to 20 years	18	17.6	17.6	87.3
	21 to 25 years	9	8.8	8.8	96.1
	26 years or more	4	3.9	3.9	100.0
	Total	102	100.0	100.0	

Total cases = 102

3. Industry Representation

Summary information of respondents companies' characteristics is shown in the Table 4.13. The company type representation of respondent companies reflects fairly closely the industry distribution in the sample as shown in Table 4.13, ruling out any

significant non-responses bias. On the other words, the distribution of firms is evenly spread across the categorised industry. Company type respondent rates do not differ by more than five percentage points from the range.

Table 4.13. Industry Representation of Respondent Companies

Company type	Number of Sample	Number of Respondents	Percent
Property investment	108	61	56.48
Brokerage	29	15	51.72
Advertising	51	26	50.98

4. Type of Local Subsidiary

In summary, most local branches are almost owned by the survey companies. As shown in Table 4.14, approximately 75% of local branches of responding companies are owned while 17.7% of companies adopt franchise pattern to engage in property marketing business. The remaining type of local branches is joint venture (7.3%). The field of property marketing is as diversified as the forms of local branch structure it produces.

Table 4.14. Types of Local Subsidiary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wholly-owned	72	70.6	75.0	75.0
	Franchise	17	16.7	17.7	92.7
	Other	7	6.9	7.3	100.0
	Total	96	94.1	100.0	
Missing	System	6	5.9		
Total		102	100.0		

Total cases= 96

5. Number of Employees

The number of full time employee in the survey followed into the categories shown in Table 4.15. The median number of employees in the responding companies covers the range from 121 to 160 employees. Based on the survey information, relatively small SBU in the portfolio of the respondent companies are included in the study (please see Table 4.16).

Table 4.15. Number of Employees in Respondent Companies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40 and below	2	2.0	2.0	2.0
	41 to 80	15	14.7	14.9	16.8
	81 to 120	16	15.7	15.8	32.7
	121 to 160	26	25.5	25.7	58.4
	161 to 200	20	19.6	19.8	78.2
	201 to 240	1	1.0	1.0	79.2
	241 to 280	5	4.9	5.0	84.2
	281 to 320	8	7.8	7.9	92.1
	321 to 360	1	1.0	1.0	93.1
	More than 361	7	6.9	6.9	100.0
	Total	101	99.0	100.0	
Missing	System	1	1.0		
Total		102	100.0		

Total cases = 101

Table 4.16. Number of Employees in Marketing Business Units

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40 and below	23	22.5	23.2	23.2
	41 to 80	42	41.2	42.4	65.7
	81 to 120	11	10.8	11.1	76.8

	121 to 160	9	8.8	9.1	85.9
	161 to 200	1	1.0	1.0	86.9
	201 to 240	2	2.0	2.0	88.9
	241 to 280	4	3.9	4.0	92.9
	281 to 320	2	2.0	2.0	94.9
	321 to 360	5	4.9	5.1	100.0
	Total	99	97.1	100.0	
Missing	System	3	2.9		
Total		102	100.0		

Total cases = 99

4.15.3. Respondent Information

Another important area of concern in self-reported retrospective accounts is the use of a single key informant (Phillips, 1981; Sharfman,1993). To alleviate the potential biases of a single key informant that could invalidate or lower the quality of data collected, these some researchers (Phillips,1981; Golden,1992; Sharfman,1993) have suggested that multiple informants be used. However, it has been suggested that if care is taken in choosing the key informant, some of the potential error can be reduced (Huber and Power,1985).

Following the procedures suggested by Seidler(1974) and Huber and Power(1985), great care was taken in choosing the key informant. Furthermore, the competency of the informants was assessed based on the recommendations of Huber and Power(1985). Tenure in the organisation has been as a proxy for access to knowledge(Seidler,1974), while others have suggested that tenure is indicative of experiential knowledge(Philips, 1981).

1. Job Titles of Respondents

The surveys were directed to the marketing managers of the sample firms. The distribution of respondents based on job function is identified in Table 4.17. As the

Table 4.17 reveals, 50 percent of respondents are marketing planning managers. Further, 36 percent of the respondents are sales managers of SBUs. Another 9 percent of respondents are market research managers. The remaining 3 percent of the respondents are public relation managers while 3 questionnaires have missing value for job function. All four job function categories are in positions to knowledgably comment for the purpose of study. The range of respondent titles in the various companies may be due to two possible reasons. First, the ‘ head of marketing’ may have different titles in the various companies included in the survey because of English translation. Second, in small companies the role of marketing may be combined with other functions such as market research and public relation in the SBU of property industry.

Table 4.17. Job Titles of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Marketing Planning	51	50.0	51.5	51.5
	Market Research	9	8.8	9.1	60.6
	Public Relation	3	2.9	3.0	63.6
	Sales Manager	36	35.3	36.4	100.0
	Total	99	97.1	100.0	
Missing	System	3	2.9		
Total		102	100.0		

Total cases=99

2. Education Background of Respondents

Approximately 95% of respondents hold university Bachelor’s degree including 26% of Master degree holders. This suggests that the respondents are likely to have a reasonably good knowledge of the marketing strategy related issues and able to

provide valid and reliable responses to the questions in the survey (please see Table 4.18).

Table 4.18. Education Background of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MBA or Postgraduate	26	25.5	26.3	26.3
	Undergraduate	68	66.7	68.7	94.9
	Technical /Commercial College	5	4.9	5.1	100.0
	Total	99	97.1	100.0	
Missing	System	3	2.9		
Total		102	100.0		

Total cases = 99

3. Work experience

Exploring the work experience characteristics of the survey respondents as shown in Table 4.19 and Table 4.20, all respondents have been with their companies for more than 2 years, and ninety five percent key informants have worked in the property marketing business to end-users at least 3 years. Accordingly, more than 82% of the respondents have spent at least 6 years in the same companies and about 95% have spent at least 2 years in involving in property marketing businesses. The good work experience and long tenure of respondents increase assurance about the quality of data they are able to provide, especially company and industry attribute. It seems reasonable to believe that the respondents were well informed about their organisations, and that the response function bias was minimal.

Table 4.19. Work Experience of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
	0 to 2 years	0	0	0	0
Valid	3 to 5 years	18	17.6	18.0	18.0
	6 to 10 years	41	40.2	41.0	59.0
	11 to 15 years	35	34.3	35.0	94.0
	16 to 20 years	6	5.9	6.0	100.0
	Total	100	98.0	100.0	
Missing	System	2	2.0		
Total		102	100.0		

Total cases=100

Table 4.20. Property Marketing Experience of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 to 2 years	5	4.9	5.0	5.0
	3 to 5 years	51	50.0	50.5	55.4
	6 to 10 years	33	32.4	32.7	88.1
	11 to 15 years	11	10.8	10.9	99.0
	16 to 20 years	1	1.0	1.0	100.0
	Total	101	99.0	100.0	
Missing	System	1	1.0		
Total		102	100.0		

Total cases = 101

4. Gender Issues

Based on the survey, it was found 83 percent of the respondents were males and only 17 percent were female(n=100).

Table 4.21. Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	83	81.4	83.0	83.0
	Female	17	16.7	17.0	100.0
	Total	100	98.0	100.0	
Missing	System	2	2.0		
Total		102	100.0		

Total cases = 100

4.16. Response Bias

In survey research, it is important for the responding sample to represent the sampling frame. Since responses were not received from all the SBUs in the sample, it was important to test for non-response bias. Two types of analysis, a comparison of respondents and non-respondents and a comparison of early and late respondents, are used to assess the extent to which the collected sample is indeed representative.

4.16.1. Non-response Bias

The geographic distribution of the 188 SBUs included in the sample was compared to the geographic distribution of usable respondents. The percentages of companies in each of ten major regions were computed for both groups(companies in the sample and companies in the study). Table 4.22 and Table 4.23 show geographic distribution and industry representation in the compared groups.

Table 4.22. Geographic Distribution and Industry Representation in the Sample List

	Construction Investment	Brokerage	Advertising	Total
Taipei (1)	57	18	22	97
Taichung (2)	16	2	11	29

Kaohsiung (3)	17	4	16	37
Tainan (4)	2	1	0	3
Hsinchu (5)	5	0	1	6
Taoyuan(6)	7	2	1	10
Pingtung (7)	1	1	0	2
Chenghwa (8)	1	0	0	1
Yulin	0	1	0	1
Taitung	1	0	0	1
Chaiyi	1	0	0	1
Total	108	29	51	188

Table 4.23. Geographic Distribution and Industry Representation in the Survey Responses

			TYPE			Total
			Construction Investment	Brokerage	Advertising	
CITY	Taipei (1)	Count	30	9	12	51
		Table %	29.4	8.8	11.8	50.0
	Taichung (2)	Count	9	2	5	16
		Table %	8.8	2.0	4.9	15.7
	Kaohsiung (3)	Count	12	2	8	22
		Table %	11.8	2.0	7.8	21.6
	Tainan (4)	Count	1			1
		Table %	1.0			1.0
	Hsinchu (5)	Count	2			2
		Table %	2.0			2.0
	Taoyuan(6)	Count	5	2	1	8
		Table %	4.9	2.0	1.0	7.8
	Pingtung (7)	Count	1			1
		Table %	1.0			1.0
	Chenghwa (8)	Count	1			1

		Table %	1.0			1.0
Total	Count		61	15	26	102
	Table %		59.8	14.7	25.5	100.0

In order to determine whether or not the distribution functions of the respondent and non-respondent groups were identical, the Kruskal-Wallis one way analysis test is a nonparametric technique for testing null hypothesis that two or more group distribution functions are identical. The results of the analysis is revealed in the Table 4.24. As shown in the Table 4.24, the test using geographic distribution is not significant($p < 0.01$) and the testing using industry representation distribution is also not significant($p < 0.01$). Since no statistical differences exist among the geographic and industry representation distribution of the sample SBUs and responding SBUs, the result shows that no systematic effects of non-response. Based on Kruskal-Wallis test (calculated 7 df, $p < 0.01$), there was no significant difference between the study sample and the population of targeted industry.

Table 4.24. Kruskal-Wallis Test

Geographic Distribution

	ALLCITY	N	Mean Rank
	Taipei (1)	51	26.00
	Taichung (2)	16	59.50
	Kaohsiung (3)	22	78.50
	Tainan (4)	1	90.00
	Hsinchu (5)	2	91.50
	Taoyuan(6)	8	96.50
	Pingtung (7)	1	101.00
	Chenghwa (8)	1	102.00
	Total	102	

Test Statistics

	CITY
Chi-Square	101.000
Df	7
Asymp. Sig.	.000

a Kruskal Wallis Test

Industry Representation

	Company	N	Mean Rank
TYPE	Construction	61	31.00
	Investment		
	Brokerage	15	69.00
	Advertising	26	89.50
	Total	102	

Test Statistics

	TYPE
Chi-Square	101.000
Df	2
Asymp. Sig.	.000

a Kruskal Wallis Test

4.16.2. Early and Late Response Approach

On the basis of Armstrong and Overton's(1977) suggestion that late respondents are likely to be similar to non-respondents, non-response bias is also assessed by comparing early and late respondents. Early responses are defined as those received prior to 25 November,2002. Late responses are defined as those responses received

on 25 November,2002 or later(presumably returned in response to the second wave of questionnaires).

In the research profiles of early and late respondents given in the Table 4.25 is based on primary data (responses to the survey questionnaire). Profiles of respondents and non-respondents, in terms of title of informant, company age and size, as well as results of tests completed to determine whether significant differences exist between the two groups, are given in Table 4.25. All tests show no significant differences between the two groups. Overall, this analysis suggests that non-response bias is negligible.

Table 4.25. Comparison of Early and late Respondents: Survey Responses

Title/Level of Informant

	Early Respondents		Late Respondents	
	Number	Percent	Number	Percent
Marketing Planning Manager	42	58.3	9	33.3
Market Research Manager	5	6.9	4	14.8
Public Relation Manager	3	4.2	0	0
Sales Manager	22	30.6	14	51.9
Total	72	100	27	100

Chi-square = 0.007, df =3, p=0.844: no statistically significant difference between early and late respondents.

Company Age

	Early Respondents		Late Respondents	
	Number	Percent	Number	Percent
0-2 year	0	0	0	0
3-5 year	6	5.9	1	3.4
6-10 year	12	11.8	7	24.1
11-15 year	34	33.3	11	37.9

16-20 year	11	10.8	7	24.1
21-25 year	6	5.9	3	10.3
Over 26 year	4	3.9	0	0
Total	73	100	29	100

Chi-square =5.575, df =6, p=0.475: no statistically significant difference between early and late respondents.

Company Size (Indicator : total number of employees)

	Early Respondents		Late Respondents	
	Number	Percent	Number	Percent
0-40 person	1	1.0	1	3.6
41-80 person	8	7.8	7	25.0
81-120 person	11	10.8	5	17.9
121-160 person	19	18.6	7	25.0
161-200 person	15	14.7	5	17.9
201-240 person	1	1.0	0	0
241-280 person	5	4.9	0	0
281-320 person	6	5.9	2	7.1
321-360 person	1	1.0	0	0
Over than 316 person	6	5.9	1	3.6
Total	73	100	28	100

Chi-square = 10.473, df =9, p=0.546: no statistically significant difference between early and late respondents.

4.16.3. Summary of Response Bias

In sum, comparing the survey and the responses sample on the three tests found no major differences between the two groups. Therefore, it can be concluded that the responses are representative of the survey sample, which in turn is representative of the population of SBU of property marketing industry. By including a large number of SBU engaged in property marketing businesses, the rich and diverse samples not

only encompass adequate variance for testing the proposed model, but also increase the generaliability of the study findings in the property market or in the other service industry.

4.17. Summary of the Chapter

The chapter has identified the sample frame, sampling method, unit of analysis, research variable scale development, survey approach, statistical methods and sample characteristics for this study. The data is attempted from marketing managers of three types of property firms from 2000 to 2001. Two statistical analyses were run on the data, including pooling regression to test research question one and multiple regression to test research question two and three. The next chapter will present the results of data analysis.

Chapter 5

Data Analysis and Final Estimated Equations

5.1. Introduction

In this chapter the analysis of the reliability and validity of the variables measures are discussed. The depth of this data was considered necessary in light of research methodological evaluation based on the previous Chapter 4. The objectives of this chapter are to condense the questionnaire data to manageable form, to review the reliability and validity of measures of the constructs of this study and to formulate final estimated equation. Principal components analysis and conventional coefficient alpha reliability were employed to measure reliability and validity of research variables. This chapter concludes with a discussion of all common factors in the final estimated equation.

5.2. Missing Values Analysis And Descriptive Statistics

The preliminary data analysis involved two procedures: (1) missing value analysis (2) descriptive analysis. The missing values analysis was administered to produce a clean data set for model estimation, whereas the descriptive statistics analysis provided an estimation of the characteristics of the data such as the mean, standard deviation and correlation.

5.2.1. Missing Values Analysis

Missing values are assigned when some data were not responded or available. Cohen and Cohen(1983) suggest that cases (returned sample) with missing values for the dependent variable should be deleted from the regression analysis. For operationalising this suggestion in the context of structural equation modelling(SEM) and regression analysis, two important issues both SEM and regression analysis need to be considered. First, structural equation modelling and regression analysis often

involve multiple dependent constructs. Second, each construct in SEM and regression analysis is usually measured with multiple indicators. Therefore, to apply Cohen and Cohen's(1983) suggestion in the context of pooling regression, cases that have missing values for all indicators of one or more constructs in the model are deleted. Based on this criterion, 6 cases were deleted from the returned sample of 108, leaving 102 cases for further analysis.

5.2.2. Descriptive Statistics

Descriptive Statistics on data representing each firm for each year observed- pooled cross-sectional time series data appearing in Appendix 6. The mean, standard deviation, minimum, maximum values and range were computed for each of the 45 items used in the model. All measures have reasonable variance, suggesting that the measures are useful for the empirical study. Additionally, descriptive statistics analyses of the 45 items show that all items have scores spanning the entire range on the respective scales. Thus, there are no problems of floor or ceiling effects in the measurements.

5.3. Exploratory Analyses

The study uses two techniques to assess construct validity: (1) a form of factor analysis (principal factors combined with appropriate rotation) and (2) reliability assessment with coefficient alpha. The following paragraphs address the construct validation procedure for each of the major constructs. To test theory using the research model, it is necessary to describe the marketing environment, strategies and performance concisely. This required an understanding of the salient environmental and strategic dimensions. To explore these latent dimensions in the questionnaire, a principal component analysis and reliability analysis were conducted.

5.3.1. Principle Component Analysis

The Principal Component Analysis (PCA) served two major purposes in the research. First, identifying the number of environmental and strategic variables, and the likely

interrelations between them. Thus, a data reduction technique was necessary. Principal Component Analysis(PCA) condensed the information contained in the original variables into a small set of new composite dimensions(common factors). This was useful that it made concise descriptions possible. Second, Principal Component Analysis(PCA) eliminated any problem that might have occurred due to multicollinearity. Normally, common factors are orthogonal or statistically independent of one another. From a research perspective, it is important that the variables need to be relatively independent(uncorrelated) with one another.

The general purpose of Principal Component Analysis(PCA) is to condense (summarise) the information contained in original variables into a new set of composite dimensions (common factors) with a minimum loss of information(Hair et al, 1992; Babbie, 1992; Kline,1993). Factor analysis examines the interrelationships among a large number variables and then attempts to explain them in terms of their common underlying dimensions. The meaning of each factor extracted was determined on the basis of those variables that loaded highly on it(Babbie, 1991). Two criteria were taken into account: (1) a factor must explain a relatively large portion of the variance found in the study variables; and (2) each factor must be independent of each other factor.

The exploratory factor analysis with varimax rotation was performed on each sample group's responses. A varimax solution seems to give a clearer separation of the factors compared to other methods. The varimax method has also proved very successful approach to obtaining an orthogonal rotation of factors while maximising loadings on a single factor. Accordingly, each variable's factor loading is independent of the loading on another factor(Hair et al,1992).

The latent root criterion was used to determine the number of factors to extract. Only factors with an eigenvalue greater than or equal to one were considered significant and extracted(Kim and Muller,1978; Hair et al, 1992; Kiline,1993). A factor loading represents the correlation between an original variable and its factor(Hair et al, 1992).

The second criterion desirable from a research perspective is that the number of

variables should be relatively few. A goal of this research is to describe the characteristics of marketing environment and strategies in a meaningful and concise manner. This would be somewhat difficult with 23 environmental and 18 marketing strategies. For the efficiency of interpretability, it seemed desirable to reduce the number of variables to a more manageable number. The 41 variables shown in the marketing environment and strategy were subjective to principal components analysis. In final, the term “ factor loading “ refers to how much of the variance associated with a factor each variable can explain.

5.3.1.1. Marketing Environment Construct

(1) External Environment

The marketing environment variables were analysed using the method of principal components. Table 5.1. identifies the values for the communalities, the eigenvalues and the variance explained by each factor. The analysis suggests that a four factors solution is appropriate based on a minimum eigenvalue of one.

Table 5.1. Principal Component Analysis for the External Environment

Communalities

	Initial	Extraction
Pressures from customers for new technology	1.000	.758
Speculative buying	1.000	.528
Entry barriers	1.000	.546
Market growth rate	1.000	.488
Buyer power	1.000	.544
Supplier power	1.000	.662
The number of competitors	1.000	.486
Competitive concentration	1.000	.536
Price competition	1.000	.723
The threat of substitutes	1.000	.392

Technological change rate	1.000	.694
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Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.300	20.913	20.913	2.300	20.913	20.913	1.847	16.787	16.787
2	1.753	15.937	36.850	1.753	15.937	36.850	1.626	14.785	31.572
3	1.170	10.641	47.491	1.170	10.641	47.491	1.531	13.914	45.487
4	1.133	10.300	57.791	1.133	10.300	57.791	1.353	12.304	57.791
5	.955	8.682	66.473						
6	.848	7.710	74.184						
7	.727	6.605	80.789						
8	.637	5.787	86.576						
9	.592	5.384	91.960						
10	.497	4.517	96.477						
11	.388	3.523	100.000						

Extraction Method: Principal Component Analysis.

Table 5.2 shows the factor structure of 4 factors solution after varimax rotation. This analysis revealed a number of interesting associations among the external environment variables.

Table 5.2. Rotated Component Matrix of Internal Environment Variables

	Component			
	1	2	3	4
Pressures from customers for new technology	-.153	.843	.135	7.568E-02
Speculative buying	.679	-.215	6.481E-02	.132
Entry barriers	7.190E-02	.124	1.472E-02	.724
Market growth rate	.624	-6.283E-02	.166	.259
Buyer power	-7.582E-02	-6.635E-02	.465	.563
Supplier power	.805	9.105E-02	-7.809E-02	-2.253E-03

The number of competitors	.422	.386	.661	-.206
Competitive concentration	.300	9.428E-02	.342	-2.276E-02
Price competition	-8.153E-02	9.109E-02	.838	8.235E-02
The threat of substitutes	.203	.109	-4.773E-02	.581
Technological change rate	7.889E-03	.812	1.042E-02	.185

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 7 iterations.

Factor 1 consisted of speculative buying (0.679), market growth (0.624) and supplier power (0.805) indicates that speculative buying and market growth in conjunction with supplier power. Factor 1 is clearly a measure of market attractiveness.

Factor 2 showed pressures from consumers for new technology (0.843) to be related to the rate of technical change (0.812). Consequently, factor 2 has been labelled “technical change pressure”.

Variables loading on factor 3 are those relating to the nature of competition, perception of “price competition”(0.838) and “number of competitors” (0.661) in the property market. Therefore, this factor can be labelled as “competitive intensity”.

Factor 4 measures the relationship among entry barriers (0.724), threat of substitutes (0.581) and buyer power (0.563) and this factor is reflected by “the substitute of competitors”.

Competitive concentration variables with a factor loading of 0.55 or below were eliminated for further analysis. The above four factors were used in the second phase of the research as criterion variables representing sources of external environmental variables.

Although the four factors solution appears to be logical in terms of marketing environment variables group, the number of factors was judged excessive for the

theoretical and practical concerns of the study. The purpose of this analysis was to reduce the variables to a small set of factors that could be interpreted as sources of external environment variables. After an examination of the rotated factor structures for three and five factors, the four factor solution was selected for three reasons: (1) the groups of environmental variables were conceptually consistent and interpretable; (2) these four factors were consistent with the theoretical discussion of environmental model construct; (3) these factor would be meaningful to practice strategic decision-makers and easily applied to actual business situations.

(2) Internal Environment

Market Orientation

Narver and Slater (1990) conceptualised market orientation as a “one dimension construct of three equally important behavioural components”. However, factor analysis results were not reported for their research. Therefore, it was not confirmed if the 6 variables that comprised the two measures- customer orientation and competitor orientation-“loaded on or consolidated” into two unique and independent factors.

An exploratory factor analysis of responses to the Narver and Slater's(1990) instrument was conducted by Sigauw and Diamantopoulos(1995) resulting in a one-factor solution, and thus supporting Narver and Slater's(1990) contention of unidimensionality. However, composite measures of the three components were utilised in the PCA analysis rather than the individual item average scores purported to correspond to the components.

The Narver and Slater(1990)'s findings were based on questionable factor analysis techniques, and thus the determination of the three components was considered to be problematic. Sigauw and Diamantopoulos(1995) also had difficulty extracting three factors from the market orientation variables. In their study, a five factor solution was determined with a predominance of the customer orientation dimension and factor one explaining the largest variance(30.8%).

Slater and Narver(1995) indicated that average scores were utilised rather than individual component scores to help the results of the analysis fit their hypothesised construct. Slater and Narver(1995) inferred that the three behavioural components(including inter-functional coordination) are, on average, of equal importance(Narver and Slater,1990). However, for the research it is appropriate to use individual scores in the analysis rather than an average of the variable scores. It is important that a PCA analysis should be conducted in the market orientation construct.

The market orientation variables were analysed using the method of principal components. Table 5.3. identifies the values for the communalities, the eigenvalues and the variance explained by each factor. The analysis suggests that a two factor solution is appropriate based on a minimum eigenvalue of one.

Table 5.3. Principal Component Analysis for the Market Orientation

Communalities

	Initial	Extraction
Collect information about customers' need	1.000	.670
Respond rapidly about competitors' action	1.000	.740
Measure customer satisfaction	1.000	.674
Top management discusses competitors' strengths and weaknesses	1.000	.672
Salespeople share competitors' information	1.000	.657
After-sale service	1.000	.608

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.004	50.070	50.070	3.004	50.070	50.070	2.037	33.947	33.947
2	1.017	16.950	67.020	1.017	16.950	67.020	1.984	33.073	67.020
3	.615	10.249	77.269						
4	.515	8.590	85.859						
5	.452	7.540	93.399						
6	.396	6.601	100.000						

Extraction Method: Principal Component Analysis.

The varimax rotated factor pattern shown Table 5.4 reveals that variables(respond rapidly for competitors' action, discusses competitors' strengths and weaknesses and share competitors' information) load on one factor(termed competitor-orientation) while another variables(collect information about customers' need, measure customer satisfaction and carry out after-sale service) load on a second factor(termed customer-orientation).

Table 5.4. Rotated Component Matrix of Market Orientation

	Component	
	1	2
Collect information about customers' need	.169	.801
Respond rapidly about competitors' action	.844	.164
Measure customer satisfaction	.212	.793
Top management discusses competitors' strengths and weaknesses	.756	.318
Salespeople share competitors' information	.791	.176
After-sale service	.230	.745

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.

Single item indicator is created for each factor by summing those variables that load highly on the specific factors. To be consistent with previous researches, the market-orientation construct is derived by summing both of the common factors, customer-orientation and competitor-orientation(Narver and Slater,1990).

Product Characteristics

The product lists characteristics variables were analysed using the method of principal components. Table 5.5. identifies the values for the communalities, the eigenvalues and the variance explained by each factor. The analysis suggests that a one factor solution is appropriate based on a minimum eigenvalue of one.

Table 5.5. Principal Components Analysis Results of Product Characteristics

Communalities

	Initial	Extraction
The relative percentage of innovative product sales	1.000	.630
Degree of uniqueness or similar of product	1.000	.779
Product differentiation	1.000	.700

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues		of Cumulati	Extraction Sums of Squared Loadings		of Cumulativ
	Total	%		Total	%	

		Variance	ve %		Variance	e %
1	2.110	70.338	70.338	2.110	70.338	70.338
2	.548	18.266	88.604			
3	.342	11.396	100.000			

Extraction Method: Principal Component Analysis.

From the Table 5.6. relative innovative product offering(0.794), product uniqueness(0.883) and product differentiation(0.837) are all loaded the one factor and summed into an overall index. The common factors measure the product offering of a SBU, so the common factor can be interpreted as “ product advantage”. Furthermore, in the model construct only one component was extracted, so the solution cannot be rotated.

Table 5.6. Component Matrix of Product Advantage

	Component
	1
The relative percentage of innovative product sales	.794
Degree of uniqueness or similar of product	.883
Product differentiation	.837

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Resource Commitment

The marketing environment variables were analysed using the method of principal components. Table 5.7. identifies the values for the communalities, the eigenvalues and the variance explained by each factor. The analysis suggests that a one factor solution is appropriate based on a minimum eigenvalue of one.

Table 5.7. Principal Components Analysis Results of Resource Commitment
Communalities

	Initial	Extraction
Time spent to marketing programme implementation	1.000	.830
Right resource allocation to marketing	1.000	.854
Money spent to marketing programme implementation	1.000	.836

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.519	83.979	83.979	2.519	83.979	83.979
2	.260	8.680	92.659			
3	.220	7.341	100.000			

Extraction Method: Principal Component Analysis.

The variables which load heavily on “ resource commitment” are those concerned with overall right resource allocation (0.924), top management time (0.911) and staff involvement (0.914)(please see Table 5.8). Thus, the factor can be labelled “ resource commitment”. Furthermore, in the model construct only one component was extracted, so the solution cannot be rotated.

Table 5.8. Component Matrix Results of Resource Commitment

	Component
	1
Time spent to marketing programme implementation	.911
Right resource allocation to marketing	.924
The extent of staff involving in the marketing planning	.914

Extraction Method: Principal Component Analysis.

a 1 components extracted.

5.3.1.2. Marketing Strategy Construct

1.Product-Market Strategies

The marketing environment variables were analysed using the method of principal components. Table 5.9. identifies the values for the communalities, the eigenvalues and the variance explained by each factor. The analysis suggests that a one factor solution is appropriate based on a minimum eigenvalue of one.

Table 5.9. Principal Components Analysis for the Product-Market Strategies

Communalities

	Initial	Extraction
Relative product sales breadth	1.000	.174
Targeted market segmentation	1.000	.605
Coverage of target market	1.000	.613

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial	% of Variance	Cumulative %	Extraction	% of Variance	Cumulative %
	Eigenvalues			Sums of Squared Loadings		
1	1.391	46.377	46.377	1.391	46.377	46.377
2	.944	31.475	77.852			
3	.664	22.148	100.000			

Extraction Method: Principal Component Analysis.

Variables product sales breadth(S5) did not load on the factor and was thereby excluded from further analysis. The common factor is related to marketing segmentation(0.778) and coverage of target market(0.783), so the common factor is labeled as “product and market scope strategy”.

Table 5.10. Component Matrix of Product and Market Scope Strategy

	Component
	1
Relative product sales	.417
Targeted market segmen	.778
Coverage of target market	.783

Extraction Method: Principal Component Analysis.

a 1 components extracted.

2. Marketing Programmes

The marketing programmes variables were analysed using the method of principal components. Table 5.11. identifies the values for the communalities, the eigenvalues and the variance explained by each factor. The analysis suggests that a six factor solution is appropriate based on a minimum eigenvalue of one.

Table 5.11. Principal Components Analysis for the Marketing Programmes Variables
Communalities

	Initial	Extraction
Relative advertising expenditure	1.000	.480
Relative public relations expenditure	1.000	.625
Relative price	1.000	.672

Relative product quality	1.000	.754
The amount of sales force training	1.000	.618
Distribution branch	1.000	.530
Sales promotion expenses	1.000	.585
Co-marketing alliances	1.000	.474
Horizontal advertising alliances	1.000	.713
Vertical advertising alliance	1.000	.498
web/internet advertising	1.000	.619
Open house	1.000	.676
The number of sales people	1.000	.677
Sales force expenses	1.000	.806
Discount pricing	1.000	.848

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.595	23.970	23.970	3.595	23.970	23.970	2.199	14.658	14.658
2	1.536	10.238	34.208	1.536	10.238	34.208	1.883	12.553	27.210
3	1.225	8.168	42.376	1.225	8.168	42.376	1.723	11.486	38.696
4	1.128	7.521	49.898	1.128	7.521	49.898	1.493	9.953	48.649
5	1.088	7.254	57.151	1.088	7.254	57.151	1.193	7.954	56.602
6	1.004	6.693	63.845	1.004	6.693	63.845	1.086	7.242	63.845
7	.853	5.684	69.528						
8	.768	5.122	74.650						
9	.705	4.699	79.349						
10	.659	4.393	83.743						
11	.626	4.172	87.914						
12	.544	3.629	91.543						
13	.455	3.033	94.576						
14	.437	2.914	97.490						

15	.376	2.510	100.000						
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Extraction Method: Principal Component Analysis.

The marketing strategic variables were analysed using the method of principal components. Six factors could be computed from the matrix of the 15 variables of marketing programme. Table 5.12. indicated that the factor structure of the six factor solution associated with each of the six factors as indicated by high factor loadings, as well as the factor loadings themselves.

Table 5.12. Rotated Component Matrix of Marketing Programme

	Component					
	1	2	3	4	5	6
Relative advertising expenditure	.511	.123	3.351E-02	.118	.414	-.130
Relative public relations expenditure	.531	-.169	.243	.459	-.136	.161
Relative price	.444	2.079E-02	7.659E-02	.681	7.467E-02	-2.269E-02
Relative product quality	-4.988E-02	.272	-4.134E-02	.819	2.506E-02	-6.094E-02
The amount of sales force training	.772	-4.831E-02	-9.956E-02	7.036E-02	7.182E-02	2.595E-02
Distribution branch	.497	.424	.240	-1.914E-02	2.142E-02	-.212
Sales promotion expenses	.635	.389	.118	4.922E-02	-5.234E-02	.109
Co-marketing alliances	.441	.490	.165	.108	-3.811E-02	-6.089E-03
Horizontal advertising alliances	6.429E-02	.840	1.701E-03	1.564E-02	1.120E-03	4.489E-02
Vertical advertising alliance	1.012E-02	.624	.167	.219	.152	9.974E-02
web/internet advertising	8.843E-02	.201	.693	-3.303E-03	-.160	-.254
Open house	3.354E-02	2.141E-03	.805	-2.668E-02	9.206E-02	.133

				02		
The number of sales people	5.279E-02	.210	.620	.252	.356	.237
Sales force expenses	2.129E-02	3.014E-02	5.625E-02	-6.337E-03	.895	-2.191E-02
Discount pricing	2.205E-02	.105	4.898E-02	-3.918E-02	-4.733E-02	.911

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 12 iterations.

The PCA analysis revealed a number of interesting associations among the marketing strategic variables. Factor one consisted of relative advertising expenditure(0.511), relative public relations expenditure(0.531), sales force training intensity(0.772) and sales promotion expenditure(0.635). Thus, factor 1 can be labeled “ promotion element”, which measures promotion intensity.

Factor two indicates that horizontal(0.840) and vertical(0.693) advertising alliance expenses were related positively, but marketing alliance(0.490) has less factor loading. The marketing alliance variable is discarded for further analysis. Clearly, the factor 2 can be labeled as “ strategic alliance element “.

Factor three includes web/internet advertising(0.693), open house(0.805) and the amount of sales people (0.620). Because the variables includes the important issue of distribution channel in the marketing theory, the factor three is labeled as “ distribution element”.

Factor four demonstrates a positive relationship between relative product price(0.681) and relative product quality(0.819). The two variables emphasises the product positioning in the SBU of served property market, so factor four can be interpreted as “ product positioning”.

Factor five which loads positively on factor five is the extent of sales force

expenses(0.895). Thus, this factor has been labeled “ sales force element”. Accordingly, only one discount pricing variables loads significantly on factor six, so this factor has been labeled “ pricing element”.

5.3.1.3. Marketing Performance Construct

The final category of research variables is the performance variables. Significant research strongly suggests that business performance is a multidimensional construct (Venkatraman and Ramanujam, 1986), and it is clear that performance variables may have a multi-dimension view. Combining the managerial and academic perspective, performance is regarded as multi-dimensional construct in this study. In conclusion, multiple performance variables were used to capture the theoretical concept adequately.

The study avoid the use of a composite measure of performance (such as performance index) since a composite index would discard information if , in some cases, the multiple measures move together and, in other cases, they move apart. Separate measures instead allow us to observe these differences. Because it was inappropriate to explore the interrelationships between these variables using factor analytic technique, factor analysis was not undertaken for performance measures.

5.3.2. Reliability Analysis

Cronbach alpha is estimated using the reliability analysis (RA) procedure in SPSS when the common factor is obtained from principal component analysis(PCA). Cronbach alpha assumes parallel measures, and represents a lower bound of composite reliability(Peter,1979). In general, the acceptable value of Cronbach alpha is 0.7.

5.3.2.1. Marketing Environment

1. Market Attractiveness

The simple statistics for the market attractiveness are identified in Table 5.13. This table shows that market attractiveness has a possible range from 3 to 21, exhibits a mean of 10.1470, and has a standard deviation of 5.1549. Reliability for market attractiveness, as measured by coefficient alpha, is 0.9538. The coefficient alpha is much higher than the standards for confirmatory research(Churchill,1979). Further, the market attractiveness items exhibit higher correlations. The corrected item-total correlation of speculative buying, market growth and supply power is 0.9084, 0.9115 and 0.8773.

Table 5.13. Reliability Analysis - Market Attractiveness

Statistics for	Mean	Variance	Std Dev	Variables
SCALE	10.1470	26.5727	5.1549	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
SB	7.7990	11.7870	.9084	.9277
MG	7.8480	12.1788	.9115	.9254
SUPPLYPO	7.8529	12.2837	.8873	.9433

Reliability Coefficients

N of Cases = 204 N of Items = 3

Alpha = .9538

2. Technical Change Pressure

The simple statistics for the technical change pressure are identified in Table 5.14. The table shows that technical change pressure has a possible range from 2 to 14, exhibits a mean of 9.6716, and has a standard deviation of 9.5024. Reliability for

technical change pressure, as measured by coefficient alpha, is 0.6889. The coefficient alpha is little lower than the standards for confirmatory research(Churchill,1979). Further, the technical change pressure items exhibit higher correlations. The corrected item-total correlation of customer for technical change and the rate of technical change is 0.5255 and reveals that the common factor exhibit convergence.

Table 5.14. Reliability Analysis – Technical Change Pressure

Statistics for	Mean	Variance	Std Dev	Variables	
Scale	9.6716	9.5024	3.0826	2	

Item-total Statistics

	Scale	Scale	Corrected	Squared	Alpha
	Mean	Variance	Item-	Multiple	if Item
	if Item	if Item	Total	Correlation	Deleted
	Deleted	Deleted	Correlation	Correlation	Deleted
PCT	4.7892	2.9554	.5255	.2761	.
TCR	4.8824	3.2767	.5255	.2761	.

Reliability Coefficients 2 items

Alpha = .6883 Standardized item alpha = .6889

3. Competitive Intensity

The simple statistics for the competitive intensity are identified in Table 5.15. This table shows that competitive intensity has a possible range from 2 to 14, exhibits a mean of 10.9216, and has a standard deviation of 12.3879. Reliability for competitive intensity, as measured by coefficient alpha, is 0.8667. The coefficient alpha is little higher than the standards for confirmatory research(Churchill,1979). Further, the

competitive intensity items exhibit higher correlations. The corrected item-total correlation of the number of competitors and the degree of price competition is 0.7652 and reveals that the common factor exhibit convergence.

Table 5.15. Reliability Analysis – Competitive Intensity

Statistics for	Mean	Variance	Std Dev	Variables	
Scale	10.9216	12.3879	3.5196	2	

Item-total Statistics

	Scale	Scale	Corrected	Squared	Alpha
	Mean	Variance	Item-	Multiple	if Item
	if Item	if Item	Total	Correlation	Deleted
	Deleted	Deleted	Correlation	Correlation	Deleted
NUCOM	4.4902	3.3841	.7652	.5855	.
PRICOM	4.4314	3.6357	.7652	.5855	.

Reliability Coefficients 2 items

Alpha = .8667 Standardized item alpha = .8670

4. The Substitute of Competitors

The simple statistics for the supply substitute is identified in Table 5.16. This table shows that supply substitute has a possible range from 3 to 21, exhibits a mean of 11.7108, and has a standard deviation of 5.2485. Reliability for competitive intensity, as measured by coefficient alpha, is 0.9596. The coefficient alpha is little higher than the standards for confirmatory research(Churchill,1979). Further, the competitive intensity items exhibit higher correlations. All the corrected item-total correlation of

entry barriers, the threat of substitute and buyer power is higher than 0.9 and reveals that the common factor exhibits higher internal correlations.

Table 5.16. Reliability Analysis - The Substitute of Competitors

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	11.7108	27.5465	5.2485	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
EB	7.7598	12.5085	.9013	.9501
BP	7.8137	12.7829	.9070	.9459
TS	7.8480	12.1788	.9342	.9254

Reliability Coefficients

N of Cases = 204.0 N of Items = 3

Alpha = .9596

5. Market Orientation- Customer Orientation

For the customer orientation common factor, the simple statistics are identified in Table 5.17. This table shows that customer orientation has a possible range from 3 to 21, exhibits a mean of 14.0980, and has a standard deviation of 4.2519. Reliability for customer orientation, as measured by coefficient alpha, is 0.7317. The coefficient alpha is little higher than the standards for confirmatory research (Churchill,1979). Further, customer orientation items exhibit higher correlations and reveals that the common factor exhibits higher internal correlations.

Table. 5.17. Reliability Analysis – Customer Orientation

Statistics for	Mean	Variance	Std Dev	Variables
SCALE	14.0980	18.0790	4.2519	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
E12	9.4069	9.5627	.5532	.6480
E14	9.3480	8.8192	.5807	.6130
E17	9.4412	8.9571	.5320	.6737

Reliability Coefficients

N of Cases = 204.0 N of Items = 3

Alpha = .7317

6. Market Orientation- Competitor Orientation

For competitor orientation, the simple statistics are identified in Table 5.18. This table shows that competitor orientation has a possible range from 3 to 21, exhibits a mean of 13.6716, and has a standard deviation of 4.0508. Reliability for competitor orientation, as measured by coefficient alpha, is 0.7689. The coefficient alpha is little higher than the standards for confirmatory research (Churchill,1979). Further, competitor orientation items exhibit higher correlations and reveals that the common factor exhibits higher internal correlations.

Table. 5.18. Reliability Analysis – Competitor Orientation

Statistics for	Mean	Variance	Std Dev	Variables
----------------	------	----------	---------	-----------

Scale 13.6716 16.4088 4.0508 3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
E13	9.1078	8.1361	.6392	.4113	.6495
E15	8.8578	7.8664	.6070	.3796	.6843
E16	9.3775	8.4036	.5628	.3194	.7326

Reliability Coefficients 3 items

Alpha = .7689 Standardized item alpha = .7696

7. Product Advantage

The simple offering of innovative /unique product are identified in Table 5.19. This table shows that product advantage has a possible range from 3 to 21, exhibits a mean of 13.3235, and has a standard deviation of 4.4037. Reliability for product advantage, as measured by coefficient alpha, is 0.7856. The coefficient alpha is little higher than the standards for confirmatory research(Churchill,1979). Further, the offering of product advantage items exhibit higher correlations. The corrected item-total correlation of innovative product offering, uniqueness/similar product offering and product differentiation is 0.5616, 0.7053 and 0.6218 and shows that these items exhibit higher internal correlations.

Table 5.19. Reliability Analysis – Product Advantage

Statistics for	Mean	Variance	Std Dev	Variables
SCALE	13.3235	19.3924	4.4037	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
E18	9.0539	11.1153	.5616	.7761
E19	8.7500	9.0062	.7053	.6204
E20	8.8431	8.5073	.6268	.7168

Reliability Coefficients

N of Cases = 204.0 N of Items = 3
Alpha = .7856

8. Resource Commitment

The simple statistics of resource commitment are identified in Table 5.20. Note that resource commitment has a possible range from 3 to 21, exhibits a mean of 13.5637, and has a standard deviation of 5.0914. Reliability for the resource commitment common factor, as measured by coefficient alpha, is 0.9043. The coefficient alpha is much higher than the standards for confirmatory research (Churchill, 1979). Further, the resource commitment items exhibit higher correlations. The corrected item-total correlation of resource commitment is approximately 0.8 and shows that these items exhibit higher internal correlations.

Table 5.20. Reliability Analysis – Resource Commitment

Statistics for	Mean	Variance	Std Dev	Variables
SCALE	13.5637	25.9220	5.0914	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
--	-------------------------------------	-----------------------------------------	--------------------------------------------	-----------------------------

E21	9.1324	11.8100	.7994	.8722
E22	9.0735	12.0192	.8247	.8500
E23	8.9216	12.3879	.8053	.8667

Reliability Coefficients

N of Cases = 204.0 N of Items = 3

Alpha = .9043

5.3.2.2. Marketing Strategy Dimensions

9. Product Market Scope Strategy

The simple statistics of product market scope strategy are identified in Table 5.21. This table shows that product market scope strategy has a possible range from 2 to 14, exhibits a mean of 9.1324, and has a standard deviation of 3.4366. Reliability for the product market scope strategy, as measured by coefficient alpha, is 0.8722. The coefficient alpha is little higher than the standards for confirmatory research (Churchill, 1979). Further, the product market scope strategy items exhibit higher correlations. The corrected item-total correlation of market segmentation and market scope strategy shows that these items exhibit higher internal correlations.

Table 5.21. Reliability Analysis – Product Market Scope Strategy

Statistics for	Mean	Variance	Std Dev	Variables
SCALE	9.1324	11.8100	3.4366	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
MS	4.6422	3.2753	.7735	.

CTM 4.4902 3.3841 .7735 .

Reliability Coefficients

N of Cases = 204.0 N of Items = 2

Alpha = .8722

10. Marketing Programme- Promotion Element

The simple statistics of promotion strategy is identified in Table 5.22. This table shows that product market scope strategy has a possible range from 4 to 24, exhibits a mean of 15.7941, and has a standard deviation of 3.7082. Reliability for the promotion strategy, as measured by coefficient alpha, is 0.6111. The coefficient alpha is little low than the standards for confirmatory research(Churchill,1979). Further, the related promotion strategy items exhibit lower correlations. The corrected item-total correlation of promotion is below 0.45 and shows that these items exhibits much lower internal correlations.

Table 5.22. Reliability Analysis – Promotion Element

Statistics for	Mean	Variance	Std Dev	Variables
Scale	15.7941	13.7505	3.7082	4

Item-total Statistics					
	Scale	Scale	Corrected		
	Mean	Variance	Item-	Squared	Alpha
	if Item	if Item	Total	Multiple	if Item
	Deleted	Deleted	Correlation	Correlation	Deleted
S1	12.3971	10.0238	.3246	.1131	.5865
S2	12.3824	9.1240	.4029	.1711	.5341
S6	11.3186	7.9325	.4392	.1960	.5021
S8	11.2843	7.8695	.4086	.1723	.5299

Reliability Coefficients		4 items
Alpha =	.6111	Standardized item alpha = .6109

11. Marketing Programme- Strategic Alliance Element

The simple statistics of strategic alliance strategy is identified in Table 5.23. This table shows that strategic alliance strategy common factor has a possible range from 2 to 14, exhibits a mean of 7.7647, and has a standard deviation of 3.4845. Reliability for the strategic alliance strategy, as measured by coefficient alpha, is 0.9271. The coefficient alpha is little low than the standards for confirmatory research(Churchill,1979). Further, the promotion strategy items exhibit lower correlations. The corrected item-total correlation of promotion is 0.8647 and shows that these items exhibit much higher internal correlations.

Table.5.23. Reliability Analysis – Strategic Alliance Element

Statistics for	Mean	Variance	Std Dev	Variables
Scale	7.7647	12.1414	3.4845	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
HA	3.8627	3.3801	.8647	.7477	.
VA	3.9020	3.1332	.8647	.7477	.

Reliability Coefficients 2 items
Alpha = .9271

12. Marketing Programme- Distribution Channel Element

The simple statistics of distribution channel strategy is identified in Table 5.24. This table shows that distribution channel strategy has a possible range from 3 to 21, exhibits a mean of 11.6618, and has a standard deviation of 5.1708. Reliability for the distribution strategy, as measured by coefficient alpha, is 0.9558. The coefficient alpha is much higher than the standards for confirmatory research(Churchill,1979). Further, the distribution channel items exhibit higher correlations. The corrected item-total correlation of distribution channel is approximately 0.9 and shows that these items exhibit much higher internal correlations.

Table 5.24. Reliability Analysis – Distribution Channel Element

Statistics for	Mean	Variance	Std Dev	Variables
SCALE	11.6618	26.7373	5.1708	3

Item-total Statistics				
	Scale	Scale	Corrected	Alpha
	Mean	Variance	Item-	if Item
	if Item	if Item	Total	if Item
	Deleted	Deleted	Correlation	Deleted
WEHB	7.7598	12.5085	.8862	.9501
OPHUS	7.7647	12.1414	.9172	.9271
SF	7.7990	11.7870	.9165	.9277

Reliability Coefficients	
N of Cases =	204.0
N of Items =	3
Alpha =	.9558

13. Marketing Programme- Product Positioning Element

The simple statistics of product positioning strategy is identified in Table 5.25. This table shows that product positioning strategy has a possible range from 2 to 10,

exhibits a mean of 6.8676, and has a standard deviation of 1.2528. Reliability for the product positioning strategy, as measured by coefficient alpha, is 0.5876. The coefficient alpha is much higher than the standards for confirmatory research(Churchill,1979). Further, the distribution channel items exhibit higher correlations. The corrected item-total correlation of distribution channel is approximately 0.4160 and shows that these items exhibit little lower internal correlations.

Table 5.25. Reliability Analysis – Product Positioning Element

Statistics for	Mean	Variance	Std Dev	Variables
SCALE	6.8676	4.4504	2.1096	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
RQ	3.4118	1.5735	.4160	.
RP	3.4559	1.5695	.4160	.

Reliability Coefficients

N of Cases = 204.0 N of Items = 2

Alpha = .5876

14. Marketing Programme- Sales Force and Pricing Strategy

Sales force expenses and discount pricing strategy have only one variable each loading on them, and Crobach alpha is not applicable in this further analysis. The two common factor scores will be inputted into the proposed model for further analysis.

5.3.2.3. Marketing Performance

For the performance constructs and components, the composite reliability of Cronbach alpha is above the acceptable value of 0.7. This ensures that the performance construct in the model is good measures of the construct.

Table.5.26. Reliability Analysis – Marketing Performance

C

Correlation Matrix					
	P1	P2	P3	P4	
P1	1.0000				
P2	.8931	1.0000			
P3	.8615	.8652	1.0000		
P4	.8973	.8647	.9053	1.0000	

Item-total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
P1	11.6618	26.7373	.9222	.8604	.9558
P2	11.7108	27.5465	.9090	.8348	.9596
P3	11.7157	27.3375	.9131	.8473	.9584
P4	11.7500	26.5727	.9294	.8743	.9538

Reliability Coefficients	4 items
Alpha = .9674	Standardized item alpha = .9674

5.4. Summary of the Exploratory Analysis

The purpose of factor analysis was to determine which subset of variables most effectively explained variance present in the data. It is clear from PCA analysis that

the 15 common factors shown in the following Table 5.27. which provides the parsimonious explanation of variance sorted out after PCA analysis for further regression analysis.

Table 5.27. Marketing Environment and Strategy Common Factors

Common factors	Items	Cronbach Alpha
Market attractiveness	3	0.9538
Technical change	2	0.6883
Competitive intensity	2	0.8667
Substitute of competitors	3	0.9596
Customer orientation	3	0.7317
Competitor orientation	3	0.7696
Product advantage	3	0.7856
Resource commitment	3	0.9043
Product-market scope strategy	2	0.8722
Promotion	4	0.6111
Strategic alliance	2	0.9271
Distribution channel	3	0.9558
Product positioning	2	0.5876
Sales force	1	na
Pricing	1	na

Performance Variables

Variables	Items	Cronbach Alpha
Sales growth	1	na
Sales growth per employee	1	na
ROI	1	na
ROS	1	na

The Cronbach Alpha values range from 0.6883 to 0.9596 in the eight measures of marketing environment. Technical change pressure has a lower but acceptable Cronbach Alpha of 0.6883. Similarly, Cronbach Alpha is above 0.85 for the three components in the marketing strategy construct, but only 0.61 and 0.58 for the promotion and product positioning common factors, respectively.

Although technical change pressure, promotion element and product positioning common factors have lower Cronbach Alpha, these common factors are retained since these common factors are conceptually useful, the empirical research is exploratory, and these items do not have high factor loading on any other component. Further, the components are retained for further analysis for two reasons. First, these factors are strongly grounded in the marketing theory. Second, the components used for further statistical analysis are managerially useful since these common factors encompass the key issues in the property marketing.

In sum, the exploratory principal components analysis and reliability analysis helped in purifying the measures and estimating a valid and reliable measurement model. The next step in the data analysis is the simultaneous estimation of the measurement and statistical models using the panel regression and multiple regression methodologies.

However, in performing principal component analysis, the correlation between each original variables and each principal component is produced. Based on these correlation, each of the extracted principal components is named in a meaningful way(Hair et al,1992). However, in some situations this labelling process is subjective. Hair(1992, p.24-25) explained this labelling process as follows:

“By examining those original variables which correlate most highly with each principal component, labels suggestion of the meaning of each principal component can be developed. The principal components, when so interpreted, can seen as providing a description of the original variables, with their complex inter-correlation,

in terms of set of un-correlated latent variables (factors) which might have generated them. “

5.5. Final Estimated Equation

The refined model that is depicted in Figure 5.1. describes these environmental, marketing strategy and performance dimensions in a theoretical network. This study focuses on four external environmental dimensions (market attractiveness, technical change pressure, competitive intensity and the substitute of competitors), four internal environment dimensions(customer orientation, competitor orientation, product advantage and resource commitment), seven marketing strategy dimension(product-market scope strategy, promotion, strategic alliance, distribution, product positioning, sales force and discount pricing, and four performance dimensions(sales growth, sales growth per employee, ROI and ROS).

Figure 5.1.

Effects on Performance

Performance Model

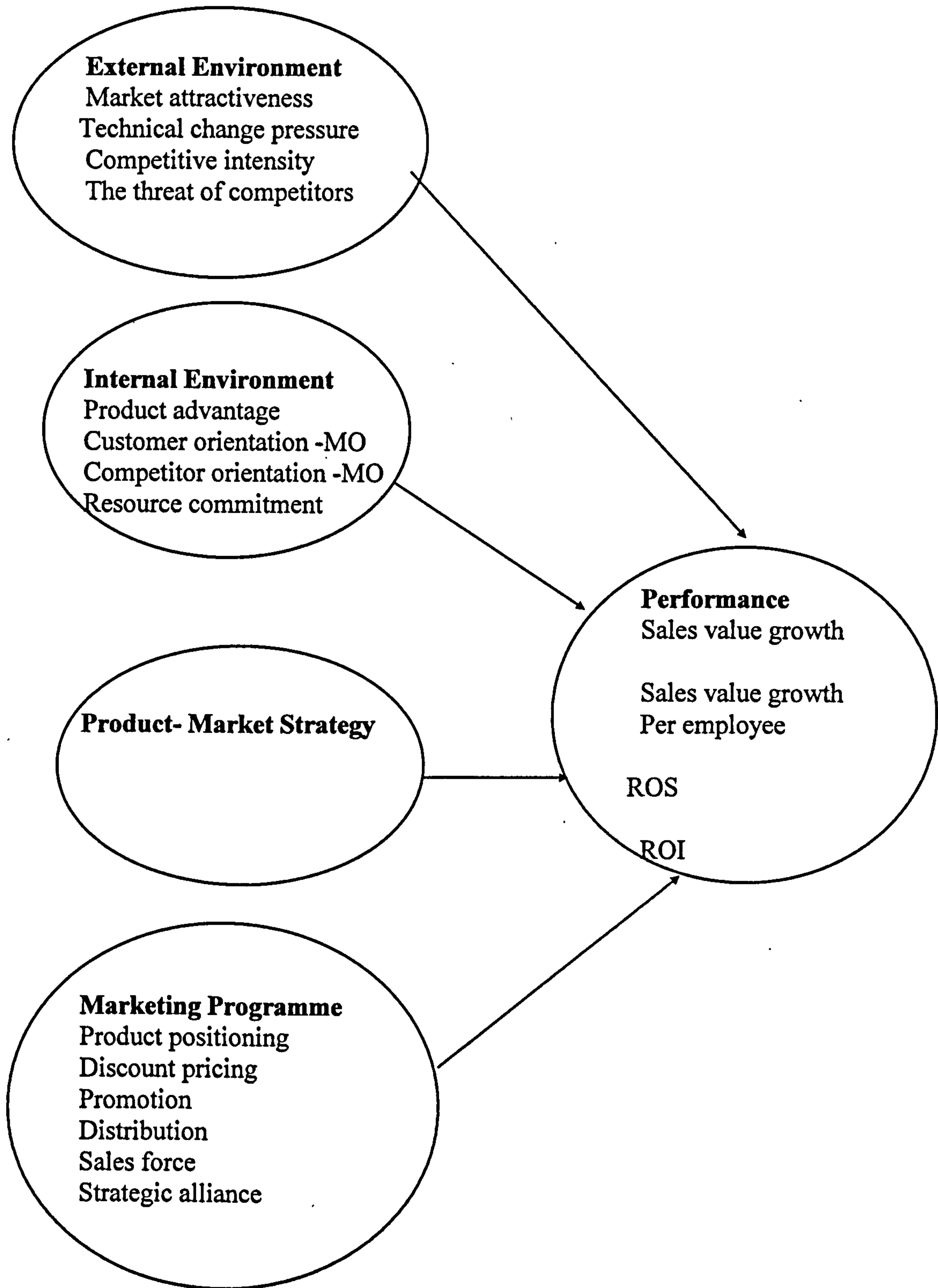


Figure 5.1. (continued)

Marketing Strategy Model

Effects on Marketing Strategy

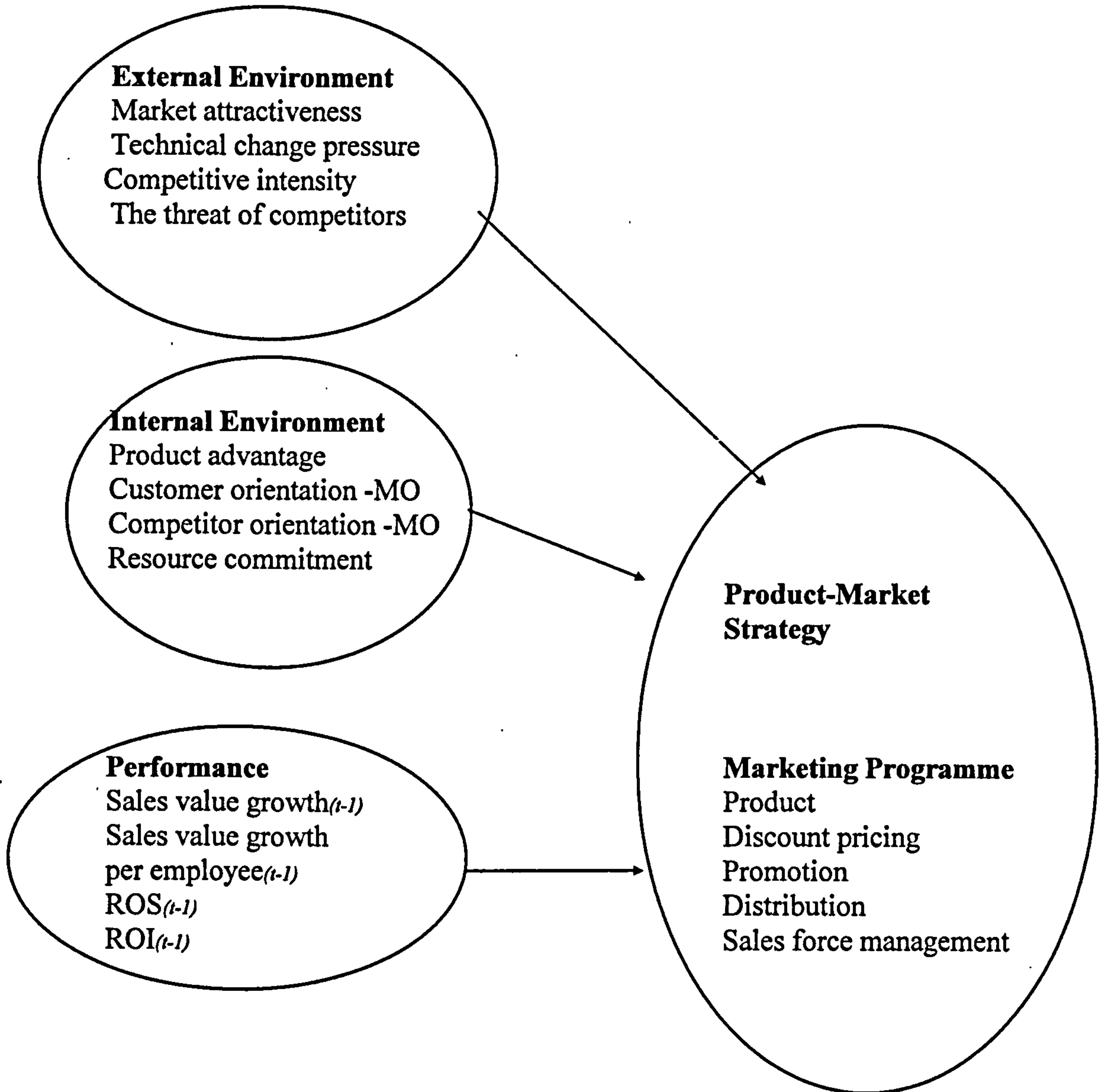
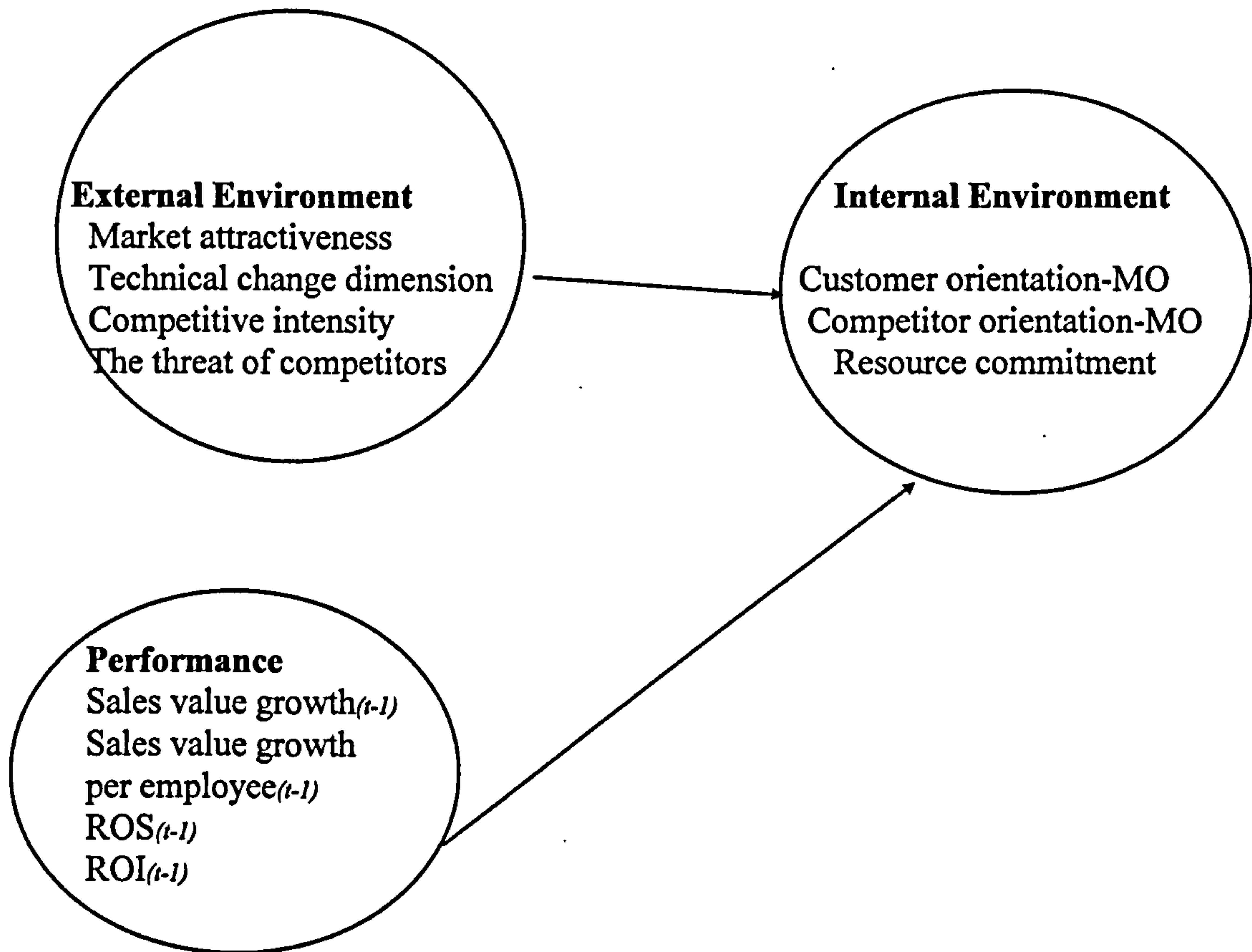


Figure 5.1. (continued)

Market Orientation and Resource Commitment Model

Effects on Internal Environment



Three sets of equations were run to test the research questions. The first set of equation was designed to answer the first research question: How do external environmental forces, internal environment forces and marketing strategy affect the performance? One regression equation was modelled using pooled, cross-section time series data with correction for autocorrelation and heteroskedasticity. Furthermore, this approach enables greater confidence in results than cross-sectional studies. To test the first sets of hypotheses, the following pooling regression equation was used:

$$y_{it} = \alpha' + \beta' X_{it} + u_{it} \quad i = 1, \dots, N, \quad t = 1, \dots, T,$$

The first equation tested the hypothesised effect to performance (H1a, H1b, H1c, H1d, H1e, H1f, H1g, H1h, H1i, H1j, H1k, H1l, H1m, H1n, H1o). The basic analysis will follow the from: Performance = f (marketing environment, marketing strategy).

The equation, including the expected signs for each of the coefficients, was modelled as:

$$SG, SGPE, ROS, ROI = \alpha + \beta_1 TC(+) + \beta_2 MA(+) + \beta_3 SC(-) + \beta_4 CI(-) + \beta_5 PA(+) + \beta_6 MO_1(+) + \beta_7 MO_2(+) + \beta_8 RC(+) + \beta_9 PM(+) + \beta_{10} ProS(+) + \beta_{11} SA(+) + \beta_{12} Dis(+) + \beta_{13} PP(+) + \beta_{14} SF(+) + \beta_{15} Pri(+) + U_i + e_{it}$$

SG : Sales growth

SGPE: Sales growth per employee

ROS: Return of sales

ROI: Return of Investment

TC: Technical change Pressure

MA: Market attractiveness

SC : The substitute of competitors

CI: Competitive intensity

PA: Product advantage

MO1 : Consumer orientation

MO2 : Competitor orientation

RC : Resource commitment

PM: Product-market Scope strategy

ProS : Promotion strategy

SA: Strategic alliance

DIS: Distribution strategy

PS: Product positioning

SF : Sales forces strategy

Pri : Pricing strategy

Ui : the fixed or random error component(cross-section error term)

eit: error term(combined with cross-section and time series)

Given the limited number of firms and time period(N=102, T=2), support was found for the hypotheses if the signs on the beta coefficients were in the predicted direction and significant at P=0.05. With a sample size of 102 firms for 2 years, the resulting sample size was N=204, which is large enough to detect a medium effect size at $\alpha = 0.05$ (Green,1991).

The second set of analyses were designed to answer the second question : How does marketing external and internal environment, prior performance affect the marketing strategy decision? (H2a, H2b, H2c, H2d, H2e, H2f, H2g, H2h, H2i). The analyses were modelled as a multiple regression equation because performance variables was lagged one period. The testable equation is :

$$PM, Pr os, SA, Dis, PP, SF, Pri = \alpha + \beta_1 TC(+) + \beta_2 MA(+) + \beta_3 SC(+) + \beta_4 CI(+) + \beta_5 PA(-) + \beta_6 MO_1(+) + \beta_7 MO_2(+) + \beta_8 RC(+) + \beta_9 SG(+) + \beta_{10} SGPE(+) + \beta_{11} ROS(+) + \beta_{12} ROI(+) + U_i$$

The third set of analyses was designed to answer the third question: What the effect on internal environment from external environment and prior performance? More specifically, to test H3a, H3b, H3c, H3d, H3e, H4a, H4b, H4c, H4d, multiple regression analysis was run for each of the hypothesis. The equation, including the expected signs for each of the coefficients, was modelled as:

$$MO_1, MO_2, RC = \alpha + \beta_1 SG(+) + \beta_2 SGPE(+) + \beta_3 ROS(+) + \beta_4 ROI(+) + \beta_5 TC(-) + \beta_6 MA(+) + \beta_7 SC(-) + \beta_8 CI(-) + U_i$$

With 102 firms in the study(N=102), there was adequate power to detect medium effect sizes at power=0.8 and $\alpha = 0.05$, support for each of the hypotheses was found if the sign on the predictor's coefficient was in the hypothesised direction and significant at P=0.05.

5.6. Summary of the Chapter

The chapter presents the results of principal component analysis and reliability analysis. Furthermore, the chapter also developed final estimated equations relating to marketing environmental characteristics, marketing strategy and marketing performance. Accordingly, after principal component analysis 15 common factors were extracted for further regression analysis. Although some common factors have lower Cronbach Alpha, these common factors are retained since these common factors are conceptually useful for further analysis. The next step for the data analysis is the simultaneous estimation of equations by using pooling and multiple regression methodologies.

Chapter 6

Empirical Results

6.1. Introduction

In the earlier chapter, a number of hypotheses were presented. Tests of the proposed hypotheses were conducted in two phases. In the first stage, individual models were tested along with relevant hypotheses. In the second phase, an integrated model was tested, which also made it possible for a simultaneous assessment of all of the proposed hypotheses. The procedure of model evaluation and fit assessment was followed from the suggestion of Bollen and Long(1993) and Anderson and Gerbing(1988) by making comparison against alternative models and then examining solution.

When evaluating a structural equation or pooling model, as Bollen and Long(1993) indicate that “ *it is better to consider several alternative models than to examine only a single model... Existing several models permits researchers to explore plausible structures. This basis of comparison also allows us to determine the model with the best fit, rather than attempt to assess a single model’s fit in some absolute sense*”(P.7). In a similar way, Anderson and Gerbing(1988) have suggested that the need to compare the model’s fit to other constrained and unconstrained versions of the theoretical model. In this study the alternative models were specified following previous findings in the literature.

Pooling and multiple regressions were used to test the different models in a path analytic framework. Traditionally, marketing strategy researchers have utilised standardised regression coefficients to calculate path coefficients. This would involve running more than one model and estimating equations separately. Subsequently, full model was conducted to estimate the unique variance explained in the dependent variables to the three sets of independent variables, namely, external environment, internal environment and marketing strategy.

6.2. Empirical Results for Analyses Relating to Question 1: The Effects of Marketing Environment and Marketing Strategies on Marketing Performance

The empirical results of the pooled, cross-sectional time series regressions of financial performance are presented in Table 6.1., 6.2, 6.3. and 6.4. These tables represent the four equations run on each performance measures. In order to test IO model, a path coefficient model was run. After PCA analysis external environment factors were proxied by four common factors, namely, market attractiveness(MA), technical change pressure(TC), competitive intensity(CI) and the substitute of competitors(SC). When sales growth(SG), sales growth per employee(SGE), return on investment(ROI) and return on sales(ROS) was the dependent variable of interest, three of four regression coefficients were statistically significant.

1. IO model

Market attractiveness(H1a) had the strongest effects on each financial measures, and technical change pressure(H1b) also had a positive effect on the financial performance. Although competitive intensity had a significant impact on performance, it had associated with a negative sign contrary to the H1c. No empirical support was found for hypotheses H1d. The model explained about 12% of the variance in sales growth, 11% in sales growth per employee, 10% in return on sales and 11% in return on investment.

Supporting the initial hypotheses, market attractiveness related factors such as market growth rate, speculative buying behaviour and supplier power have significant positive effects on marketing performance. Similarly, technological change pressure factors such as technological change rate and pressures from customers for new technology have significant effect on marketing performance in the Taiwan property market.

Table 6.1. IO Model

Variables	SG	SGE	ROS	ROI
MA	0.436***	0.357***	0.398***	0.395***
TC	0.352**	0.311**	0.292*	0.257*
CI	0.301*	0.341**	0.278*	0.286*
SC	0.096	0.105	0.111	0.089
Constant	3.951**	3.902**	3.897**	0.969**
U	0	0	0	0
E	1.7014	1.7362	1.6979	1.8441
Rho	0	0	0	0
R-sq : within	0.2254	0.1765	0.1997	0.1732
between	0.0343	0.0458	0.0242	0.0209
overall	0.1216	0.1121	0.1046	0.0947
F	7.63**	5.52**	6.76**	5.57**

Notes : Number of observation= 204, Number of groups=102, Time period=2.

Standardised betas are reported for each equation.

*** $p < 0.001$

** $P < 0.01$

* $P < 0.05$

Rho : Fraction of Variance due to U_i

2. RBV model

The resource based view, an emerging paradigm, suggests that the intangible resources and culture of a firm are the primary drivers of performance. In order to empirically test this model, four constructs were measured to represent the domain of the intangible resources and culture, namely, customer orientation(MO1), competitor orientation(MO2), product advantage(PA) and resource commitment(RC). The main effects of customer orientation(H1e), competitor orientation(H1f), product advantage(H1g) and resource commitment(H1h) was not statistically significant on financial performance(see Table 6.2.), and the variance explained in performance measures is minuscule(R-square between 5.3% to 5.9%). The findings revealed that

only customer orientation has positive and significant effect on return on investment(ROI).

The predicted main effect of internal resources and organisational culture on key financial performance is not supported by the data. Although the estimated parameters for these main effects had the expected sign, they were not statistically significant. Therefore, hypothesis H1e, H1f, H1g and H1h were not supported. Overall, the model explained about 5.9% of the variance in sales growth, 5.9% in sales growth per employee, 5.7% in return on sales and 5.3% in return on investment.

Table 6.2. RBV model

Variables	SG	SGE	ROS	ROI
MO1	0.225	0.216	0.181	0.290*
MO2	0.107	0.095	0.066	0.142
PA	0.245	0.251	0.254	0.199
RC	0.092	0.075	0.113	-0.000
Constant	3.951**	3.902**	3.897**	3.862**
U	0	0	0	0
E	1.839	1.845	1.820	1.970
Rho	0	0	0	0
R-sq : within	0.0794	0.0440	0.0632	0.0408
Between	0.0473	0.0795	0.0542	0.0714
Overall	0.0599	0.0593	0.0568	0.0530
F-ratio	2.97	2.09	2.70	2.34

Notes : Number of observation= 204, Number of groups=102, Time period=2.

Standardised betas are reported for each equation.

*** p< 0.001

** P< 0.01

* P< 0.05

3. PIMS model

Similar to the testing of the IO and RSV model, a path model was estimated in order to test the PIMS model. Consistent with the expectation of hypotheses 1m and 1n, product positioning and sales force expenditures had a significant impact on sales growth, sales growth per employee, return on investment and return on sales. Additionally, strategic alliance strategy had a significantly positive impact on sales growth. However, hypotheses 1i, 1j, 1l and 1o was not supported. Sales force expenditures(H1m) and product positioning(H1n) being the principal predictors of financial performance is consistent with a number of prior PIMS data based empirical studies(Buzzell and Gale,1987; Szymanski, Bharadwaj and Varadarajan,1993). An interesting results is that most marketing communication elements including promotion, distribution and product-market strategy and discount pricing , which are most commonly discussed in the marketing literature, do not have significant direct effect on financial performance. Overall, the model explained about 7.82% of the variance in sales growth, 6.33% in sales growth per employee, 7.22% in return on sales and 9.25% in return on investment.

Table 6.3. PIMS Model

Variables	SG	SGE	ROS	ROI
PM	0.078	0.101	0.032	-0.001
Pro	0.123	0.120	0.056	0.063
Sa	0.287*	0.200	0.195	0.240
Dist	0.121	-0.094	0.079	0.039
PP	0.330**	0.353**	0.427***	0.379**
SF	0.307*	0.268*	0.298*	0.329*
Pricing	-0.066	-0.085	0.509	-0.039
Constant	4.243**	4.275**	4.140**	4.038**
U	0	0	0	0
E	1.8517	1.832	1.838	1.928
Rho	0	0	0	0

R-sq : within	0.0782	0.0633	0.0722	0.0925
between	0.1231	0.1235	0.1411	0.1018
overall	0.0981	0.0890	0.1026	0.0922
F	2.93**	2.84**	2.73**	2.71**

Notes : Number of observation= 204, Number of groups=102, Time period=2.

Standardised betas are reported for each equation.

*** P< 0.001

** P< 0.01

* P< 0.05

4. Full Performance Effect model

After estimating the model with sub-model, the proposed model was also estimated on a full model combining marketing environment, strategy and performance variables. This aim is to test the stability of the estimates between the full and separated model. The primary general hypothesis of this study was that the role of any one of the three sets of predictors (external marketing environment, internal marketing environment, competitive marketing strategy) had to be examined for their predictive validity, in the presence of, and not independent of the other two sets of predictor variables. The integrated model of business unit performance provides an opportunity to test this premise. Financial performance as the final criterion variables and fifteen independent variables representing the three sets of predictors was tested.

Results of pooled, cross-sectional time series analysis on the dependent variable marketing performance are presented in Table 6.4. Separate results are reported for each performance variables (sales growth, sales growth per employee, ROI and ROS). The overall, within and between R square for each performance variable was high, ranging from 0.27 to 0.31, and F ratio was significant for all equations(P<0.001). Multicollinearity was checked and found to not be a significant problem in these equations by regressing each of the independent variables on all of the remaining independent variables and assessing that R-Square for each of those equations was far from unity(Lewis-Beck,1980). The empirical results from the analysis of full model are summarised in the Table 6.4.

Table 6.4. Effects of Marketing Environmental Characteristics and Marketing Strategy on Marketing Performance

Variables	SG	SGE	ROS	ROI
MA	0.445**	0.386**	0.428**	0.404**
TC	0.275*	0.285*	0.278*	0.191
CI	0.217	0.276*	0.189	0.090
SC	0.058	0.091	0.083	0.089
MO1	0.132	0.158	0.094	0.194
MO2	-0.210	0.013	-0.020	0.032
PA	-0.156	0.004	0.039	-0.034
RC	0.205	0.178	0.231	0.094
PM	0.265	0.201	0.093	0.155
Pro	-0.033	-0.050	0.003	-0.016
Sa	-0.007	-0.075	-0.122	-0.025
Dist	0.123	-0.002	0.149	0.084
PP	0.159	0.158	0.201	0.223
SF	-0.068	-0.004	-0.021	-0.011
Pricing	-0.221	-0.150	-0.159	-0.153
Firm C	0.578	0.637*	0.893*	0.878*
Firm B	0.966*	0.794	0.861*	0.966
Firm A	Dropped	Dropped	Dropped	Dropped
Region1	1.314	0.982	0.124	0.692
Region2	1.001	0.851	-0.259	0.448*
Region3	1.490	0.897	0.026	0.911
Region4	-0.792	-2.078	-3.171	-1.628
Region5	1.920	1.781	0.399	1.213
Region6	1.052	0.864	-0.016	0.599*
Region7	3.497	3.212	1.724	3.369
Region8	Dropped	Dropped	Dropped	Dropped
CS1	2.182	3.177	3.106	2.035
CS2	2.174	2.609*	1.712	1.848

CS3	1.973	2.119	1.592	1.628
CS4	2.257	2.398	1.773	1.830
CS5	1.552	1.614	1.238	1.188
CS6	2.282	2.466	1.810	3.039
CS7	2.061	2.914*	2.175	2.035
CS8	2.362	2.429	1.846	1.813
CS9	Dropped	Dropped	Dropped	Dropped
CS10	0.959	1.391	0.750	0.821
Constant	0.235**	0.284**	1.618**	0.969**
U	0	0	0	0
E	1.6092	1.5994	1.5865	1.7813
Rho	0	0	0	0
R-sq : within	0.3154	0.3318	0.3158	0.2710
between	0.2892	0.2655	0.2584	0.2793
overall	0.3033	0.3027	0.2896	0.2743
F	2.34**	2.27**	2.33**	2.65**

Notes : Number of observation= 204, Number of groups=102, Time period=2.

Standardised betas are reported for each equation.

Firm A, Region 8 and CS9 dropped due to collinearity

*** $p < 0.001$

** $P < 0.01$

* $P < 0.05$

When sales growth was the criterion variable of interest, two of the fifteen regression coefficients were statistically significant. Only market attractiveness and technical change pressure continued to have a positive effect on sales growth. On the other hand, contrary to prior PIMS sub-model, sales force expenditures and product positioning strategy was not found to affect sales growth. The overall fit of the model was reasonable since it explained over 30% of the variance in sales growth.

Findings from the analysis with sales growth per employee as the dependent variable revealed that three of external environment variables, none of the internal environment variables and none of the competitive marketing strategy variables had a statistically significant relationship with sales growth per employee. Although competitive intensity had a significant effect on sales growth per employee, the hypothesis had a sign opposite to the direction predicted. As a system of equations, the full performance model explained about 30.27% of the variance in these dependent variables.

The results based on the analysis with return on sales as the dependent variable were largely similar to the results with sales growth as the dependent variable with some small difference (see Table 6.4.). Therefore, among marketing environment and strategy variables (the two components that make up the predictors in the full model of performance), only market attractiveness and technical change continued to have a positive relationship with return on sales. As regards the resource based view variables, no variables have a significant and positive effect on return on sales. As a system of equations, the full performance model explained about 28.96% of the variance in these dependent variables.

The research finding was the fact that no more variables were found to be a statistically significant predictor of return on investment. Only market attractiveness had a significant and positive effect on ROI. Therefore, the findings suggest that the exogenous variables posited in the model were not common cause of ROI. As a system of equations, the ROI model explained about 27% of the variance in these dependent variables.

Furthermore, in the integrated model the results indicate that sales force expenditures and product positioning was no more a significant predictor of sales and profitability and the non-spurious component of the effect size was relatively small. The findings from the integrated model also suggested that market attractiveness were the key common cause of sales and profitability. In the separated model market attractiveness and technological change pressure appeared to be the key determinants of variance in business unit performance.

Thus, while broad comparisons may be made between the estimates obtained with the full and sub model, it might not be meaningful to statistically test the differences in the size and significant levels of the structural paths estimated with the full model and separated model. However, while broad comparisons might be made between the estimates obtained with the full or separated model, it might not be meaningful to statistically test the differences in the size and significance levels of the structural paths estimated with the full or separated model. As shown in the Table 6.4., the full model estimates are substantively difference to those from the separated model, and there are a few differences in the size, sign and significance level of some of the structural path coefficients. However, the R-square may be high due to add many variables and dummy variables. The R-square may be high due to model overfitting creating a false sense of achieving a good model fit.

The research posits that the “ true” model is an ideal formulation to approximate in practice. Specifically, the primary criteria is whether a model can be logically consistent, whether the model seems plausible in Taiwan property market, and whether the model performs better to explain the phenomenon of interest. Given the reasonably high overall consistency between the model estimates from the full and the subset data, it can be concluded that the results presented based in this question 1 with separated model are reasonably to approximate in practice.

Residuals from the regression were ranked in ascending order and histogram was developed to depict the cumulative distribution of residuals. This distribution did not indicate sufficient deviation from normality to cause concern. Attempts were made to test the assumptions of no serial correlation and homoscedasticity. Specially, plot of standardised residuals and the Durbin-Watson statistics were observed. Plot of standardised residuals and the Durbin-Watson statistics (DW= 1.716) indicated that the residuals of the pooled data were not serially correlation. The above tests showed that residuals were not correlated over the combination of time-series and cross section observations. Thus, the Durbin-Watson statistics was also computed for cross-section units for each of two years sample periods. However, no evidence of serial correlation of the error terms exists. The above conclusion was reached that the

error terms did not seem to be correlated, and then there was no need to adjust for serial correlation. The plot of residuals versus the predicted values of performance(the dependent variables) did not indicate any heteroscedasticity problem. There was no indication that the error variance varied with the level of any of the independent variables. These findings suggested that there was no reason to believe that heteroscedasticity was a problem in the dataset.

6.3. Empirical Results for Analyses Relating to Question 2: The Effects of Prior Performance and Marketing Environment on Marketing Strategies

The results of the multiple regression of marketing decision variables are presented in Table 6.5., 6.6. and 6.7. These tables represent the three equations run on each marketing mix variables. The effects of marketing environmental characteristics and prior performance on marketing strategies were mixed.

Hypothesis 2a was partially supported. When a SBU of property industry with higher market attractiveness condition also engaging in spending relatively larger strategic alliance expenditures. This finding may indicate that SBU will spend more in the strategic alliances under the market attractiveness condition.

Hypotheses 2b was received mixed support. The existence of technical change pressure was positively associated with the spending of promotion ($p < 0.001$) and strategic alliance ($p < 0.001$). The finding provides evidence that property marketing SBU pursue promotion and strategic alliance strategy when faced with technical change pressure from customers.

Hypotheses 2d were not supported while hypothesis 2c received little support. The empirical findings indicate that competitive intensity has significant positive effect on distribution channel intensity, represented with web advertising, open house and the amount of sales people. This finding may reflect that firms tend to increase the intensity of distribution channel when facing high competitive intensity.

Hypotheses 2f and 2g received little support. Hypothesis 2f was supported ($P < 0.05$), indicating that higher customer orientation culture SBU are accompanied by a greater intensity of distribution channel components including web advertising, open house and the amount of sales people.

Support for the role of product advantage (H2g) to marketing strategy variables was mixed ($p < 0.05$) for equation using product-market and product positioning decision. The findings indicate that SBUs with property lists advantage tend to expand their served product-market scope and adopt higher product positioning compared to major competitors.

Hypotheses 2h relating to the role of resource commitment on the scope of product-market and the intensity of promotion were supported. The research findings predicted that resource commitment factors would be a predictor of product market scope strategy and promotion strategy. The empirical findings indicate that most property firms committed resource to marketing area, particularly, in product-market scope, relative advertising expenditures, relative public relations expenditures, the amount of sales force and sales promotion expenses.

However, sales force expenditures (H2n) and pricing strategy (H2o) are not affected by any environment factors. The two equations of regressing sales force expenditures and pricing strategy had very low R-square ranging 4.6% to 5.4%. Furthermore, the F-ratio was not significant ($p < 0.05$). The findings indicate that when a SBU make sales force and discount pricing decision were not affected by any environment factors. These results need further research to examine what factors influence sales force expenditures spending decision and discount pricing strategy.

Table 6.5 Effects of Marketing Environmental Characteristics on Marketing Strategies

Variabls	PM	Prom.	Dist.	PP	SF	SA	Pricing
MA	-0.002	0.013	0.026	-0.035	0.018	0.264***	0.194
TC	0.102	0.195***	0.112	-0.059	0.106	0.190***	-0.047
CI	-0.026	0.126	0.148*	0.106	0.134	0.029	0.007

SC	0.036	-0.039	0.082	-0.053	0.062	0.061	-0.054
MO1	-0.058	0.020	0.040*	0.103	0.012	0.031	-0.188
MO2	-0.015	0.030	-0.190	0.113	0.030	0.043	-0.097
PA	0.175*	0.122	-0.128	0.176*	-0.157	0.009	0.079
RC	0.165*	0.237***	0.084	0.086	-0.082	0.099	0.138
Constant	-0.103	0.172	0.038	-0.153	-0.232	-0.125	-0.256
R-square	0.097	0.184	0.062	0.107	0.046	0.150	0.054
F-ratio	2.62**	5.492***	1.603	2.92***	1.165	4.318***	1.402

N=102, T=1

*** p< 0.001

** P< 0.01

* p< 0.05

Hypothesis 2i predicted that past organisational performance would affect the marketing mix decision positively and negatively. In the Table 6.6 hypothesis 2i were received little support in the study. Empirical evidence shows that past performance would affect the distribution decision in a SBU, was supported (P<0.05) only for sales growth, sales growth per employee but not for profitability(ROS and ROI). Additionally, the relationship between past performance and distribution strategy is negative. The research findings indicate that property firms will increase more spending on distribution channel including web advertising, open house and the number of sales people for pursuing growth opportunities.

Table 6.6. Effects of Prior Performance on Marketing Strategies

Variable	PM	Prom.	Dist.	PP	SF	SA	Pricing
SG	0.344	0.102	0.398*	0.101	-0.274	0.362	-0.086
SGE	0.043	0.060	-0.368*	0.097	0.244	-0.111	0.126
ROI	-0.047	0.129	0.270	0.100	-0.046	-0.203	0.045
ROS	-0.160	-0.111	-0.182	0.177	0.127	-0.076	-0.738
Constant	-0.396*	-0.401	-0.255	-0.427	-0.115	-0.253	0.102
R-square	0.046	0.032	0.048	0.040	0.016	0.038	0.006
F-ratio	2.381	1.662	2.530*	2.047	0.828	1.961	0.315

N=102, T=1

*** p< 0.001

** P< 0.01

* P< 0.05

To test the robustness of the proposed model results, an additional estimated work was carried out by estimating a full model. The work consisted of testing an alternative model and estimating the proposed full model with the same data sets. This full model combined the above two equation for examining empirical results shown in the Table 6.7. The full marketing strategy effect model shows slight difference from individual model.

Table.6.7. Effects of Marketing Environmental Characteristics and Prior Performance on Marketing Strategies

Variable	PM	Prom.	Dist.	PP	SF	SA	Pricing
MA	-0.092	0.032	-0.037	-0.098	0.135	0.228**	0.295
TC	0.071	0.215**	0.078	-0.071	0.222**	0.219**	0.986
CI	-0.062	0.112	0.140	0.128	0.032	0.024	0.202
SC	0.018	-0.046	0.056	-0.032	0.002	0.075	0.269
MO1	0.036	-0.034	-0.149	0.013	0.008*	0.029	0.847*
MO2	-0.108	0.003	-0.006	0.064	-0.179	0.011	0.029
PA	0.142	0.070	-0.132	0.147	-0.058	0.005	0.267
RC	0.170	0.271**	0.120	0.163	0.084	0.056	0.116
SG	0.238	-0.209	0.413*	-0.220	-0.302	0.117	0.983
SGE	0.046	0.031	-0.403*	0.093	0.179	-0.038	0.606
ROI	-0.029	0.150	0.431*	0.055	-0.120	-0.135	0.409
ROS	-0.125	0.010	-0.331	0.143	0.274	-0.068	0.718
Firm C	0.039	-0.089	0.175	-0.004	0.014	0.024	0.056
Firm B	-0.094	0.062	0.033	-0.085	0.115	-0.116	0.733
Firm A	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped
Region1	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped
Region2	-0.115	-0.034	-0.029	0.101	-0.099	-0.051	0.746

Region3	-0.125	-0.049	0.001	-0.094	-0.055	-0.109	0.389
Region4	-0.067	-0.167	0.113	0.107	-.019	0.284**	0.861
Region5	0.140	0.079	0.036	0.206	-0.142	0.043	0.106
Region6	-0.059	-0.061	0.072	0.121	-0.173*	-0.028	0.635
Region7	0.016	0.120	0.060	0.143	0.140	0.048	0.518
Region8	0.076	-0.048	0.104	0.019	0.013	0.023	0.733
CS1	-0.082	-0.007	-0.239	-0.227	0.079	-0.023	0.680
CS2	0.026	-0.038	-0.173	-0.003	0.149	0.130	0.208
CS3	0.008	-0.027	-0.127	-0.130	-0.011	0.126*	0.991
CS4	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped	Dropped
CS5	-0.005	-0.004	-0.150	-0.076	0.104	-0.197	0.409
CS6	0.008	0.041	0.010	0.004	-0.007	-0.052	0.988
CS7	-0.087	0.132	-0.140	-0.039	0.041	-0.115	0.226
CS8	-0.020	-0.059	-0.021	-0.019	0.042	-0.111	0.701
CS9	-0.071	-0.089	0.027	0.092	0.152	-0.070	0.254
CS10	-0.110	0.059	-0.244	0.102	0.166	-0.091	0.078
Constant	-0.123	0.151	-0.282	-0.125	-0.232	-0.013	-0.256
R-square	0.233	0.328	0.276	0.213	0.192	0.201	0.195
F-ratio	1.748*	2.814**	2.195**	1.371	1.192	1.454*	1.392

N=102, T=1

Firm A, Region 1 and CS4 dropped due to collinearity

*** p< 0.001

** P< 0.01

* P< 0.05

H2a, H2b and H2c and H2d obtained the same results. However, the relationship(H2f) between customer orientation culture and marketing decision produces mixed results. In the separated model, customer orientation was proved to be a prime explanatory factor for distribution strategy. However, in the full model a higher customer orientation organisation will spend more sales force expenditures and adopt discount pricing strategy. Additionally, product advantage was not found to affect sales force expenditures and product positioning. Hypothesis 2h also produces

mixed results. The overall fit of the model was reasonable since R-square increase to the range of 19.2% -32.85.

The research posits that the “ true” model is an ideal formulation to approximate in practice. Specifically, the primary criteria is whether a model can be logically consistent, whether the model seems plausible in Taiwan property market, and whether the model performs better to explain the phenomenon of interest. Given the reasonably high overall consistency between the model estimates from the full and the subset data, it can be concluded that the results presented based in this question 2 with separated model are reasonably to approximate in practice.

6.4. Empirical Results for Analyses Relating to Question 3: The Effect of External Environment and Prior Performance on Internal Environment

H3a and H4a were not supported. Market attractiveness did not influence market orientation of a SBU in the property served market. Although data support the hypothesis 3b. However, the signs on the coefficients were opposite the predicted in the hypotheses. The research findings indicate that technical change pressure have positive effect on customer orientation. H3c and H4b were not supported by the data while H3d and H4c were received full support. The research findings indicates that the SBU tends to implement marketing market orientation and commit more resource under the pressure of higher entry barrier, higher buyer power and higher the threat of substitute.

Table 6.8. Effects of Marketing External Environmental Characteristics on Marketing Orientation and Resource Commitment

Variables	MO1	MO2	RC
MA	0.070	0.099	0.085
TC	0.215***	-0.048	-----
CI	0.055	-0.071	0.010
SC	0.290***	0.193***	0.257*
Constant	0.157	0.237	1.724

R-square	0.138	0.054	0.073
F-ratio	7.994***	2.864	0.651

N=102, T=1

*** p< 0.001

** P< 0.01

*P< 0.05

Hypotheses 3e and 4e was not supported by the data, and indicating prior performance did not affect the market orientation and resource commitment. The findings implies that firms with market orientation may formulate for a long term, any culture and organisation characteristics (such as resource commitment) will not affect by prior performance.

Table 6.9 Effects of Prior Performance on Marketing Orientation and Resource Commitment

Variables	MO1	MO2	RC
SG	0.080	0.001	0.198
SGE	0.032	0.106	0.035
ROI	0.016	0.225	0.238
ROS	-0.012	-0.110	-0.302
Constant	-0.251*	-0.365*	-0.398*
R-square	0.013	0.033	0.041
F-ratio	5.729	1.718	2.103

N=102

*** p< 0.001

** P< 0.01

*P< 0.05

However, while broad comparisons might be made between the estimates obtained with the full or separated model, it might not be meaningful to statistically test the differences in the size and significance levels of the structural paths estimated with the full or separated model. As shown in the Table 6.10., the full model estimates are

substantively similar to those from the separated model, and there are not significant differences in the size, sign and significance level of some of the structural path coefficients. However, the R-square may be high due to add many variables and dummy variables.

Table 6.10. Effects of Marketing External Environmental Characteristics and Prior Performance on Marketing Orientation and Resource Commitment

Variables	MO1	MO2	RC
MA	0.108	0.092	0.095
TC	0.199**	0.033	-----
CI	0.058	-0.101	-0.021
SC	0.276**	0.143*	0.233*
SG	-0.099	0.031	0.142
SGE	0.026	0.106	-0.022
ROI	0.189	-0.018	-0.217
ROS	-0.152	-0.067	0.264
Firm C	-0.077	0.039	Dropped
Firm B	-0.036	-0.014	-0.059
Firm A	Dropped	Dropped	0.096
Region1	Dropped	Dropped	Dropped
Region2	0.135	-0.070	0.017
Region3	-0.021	0.131	0.020
Region4	-0.213*	0.001	-0.225
Region5	-0.022	0.016	-0.109
Region6	-0.061	0.056	-0.020
Region7	-0.073	-0.094	-0.154
Region8	-0.093	0.178*	0.140
CS1	0.099	-0.235*	0.185
CS2	0.004	0.061	0.070
CS3	0.008	0.033	-0.051
CS4	Dropped	Dropped	Dropped
CS5	-0.103	0.015	-0.061

CS6	0.008	0.004	0.096
CS7	0.001	0.058	0.071
CS8	-0.081	0.100	0.005
CS9	-0.028	0.141*	-0.096
CS10	0.192	0.091	0.154
Constant	0.151	-0.605	1.618
R-square	0.264	0.240	0.254
F-ratio	2.34**	2.458**	2.33**

N=102

Firm A, Region 1 and CS4 dropped due to collinearity

*** p < 0.001

** P < 0.01

* P < 0.05

Comparing with full and separated model, as shown as Table 6.10, the results of full model estimates are substantively similar to those from the separated model, although there are a few differences in the size of coefficients. However, there is no significant difference in the sign and significant level of some of the structural path coefficients. However, given the reasonably high overall consistency between the model estimates from the full and the subset data, it can be concluded that the results presented based in this question 3 with separated model are reasonably to approximate in practice.

6.5. Empirical Results for Analyses Relating to Question 4 : What Differences Exist in Marketing Managers' Perceptions Regarding Marketing Strategy and Performance

In the marketing and strategy significant between-unit(or between time period, or both) differences are the source of the OLS bias. In most cross-section study, the obvious remedy is to ignore it. The study introduces dummy variables for the effects and estimates OLS. The goal of model of is to produce a zero expectation for residuals within and between units.

The least square with dummy variables model(LSDV), the covariance model, is written :

$$y_{it} = \sum B_r X_{it} + u_i + e_{it} + \lambda_t \quad (i = 1, 2, \dots, N ; T=1, 2, \dots T)$$

Where U_i are unit(firm)-specifics, λ_t are time-specific effects, and e_{it} are specific to both time and unit(firm). In the Table 6.4., 6.7. and 6.10. error term consists of the above three components, in an random effect model only one of which, e_{it} is suitable for OLS estimation.

To answer question 4, the argument can be generalised to both units and time simultaneously, with some complication. As a practical matter most studies seldom control both temporal and spatial disturbances. This entails both complexity and large losses of degree of freedom. The LSDV specification in the Table 6.4., 6.7 and 6.10. is in all regards similar to the OLS specification for the inclusion of 21 dummy variables. Three variables are omitted as reference categories. As applied here, LSDV model specifies a dynamic process that is uniform across all company types, headquarter regions and company size, but shifted upward or downward at all times by a constant.

The key question is how each category differs from the reference category. In the Table 6.4 the coefficient for the firm type dummies can be interpreted as deviations from the reference category, advertising firms. The advertising firms, on average, had significantly better performance than construction and brokerage firms during the two years period. In Taiwan construction investment companies had poorest performance.

In Taiwan almost all marketing strategies decisions were made from headquarters. Accordingly, the coefficient for the headquarter location region dummies can be interpreted as the reference category, Chenghwa. From observing the empirical evidence in the Table 6.4., the headquarters located in the Pingtung has the best performance. However, only two sample is collected from Pingtung. Because the SBU of property marketing business competed in the prime metropolitan,

headquarters located in Kaohsiung enjoyed better performance than other major metropolitan including Taipei and Taichung.

What does company size have best performance? The reference category is firm with 321-360 employees. However, the reference category and the larger company with over 361 employees have significantly poor performance than the national norm. The empirical evidence shows that the larger company size, the poor the financial performance. The optimal level of company size experiencing best performance is firm with 201-240 employees. However, there is no significant difference with smaller companies.

Choice of reference category is arbitrary. Advertising firms, Chenghwa county and 321-360 employee company size was chosen by the particular software employed because it might be last category. The other reasonable arbitrary choice, the first category, would have been even more deviant, but in the opposite direction.

In the Table 6.7. advertising firms, the reference category here, significantly deployed more marketing intensity for sustaining competitive advantage than the national norm. This empirical evidence is consistent with the expectation that Taiwan advertising firm is classified into strategic orientation firm with broader product-market scope, more marketing communication expenditures, strategic alliance expenditure, sales force expenditures and discount pricing strategies.

Most marketing mix decisions were made from the SBU of headquarters, firms with headquarters located in Taipei tend to spend more marketing communication expenditures, broader product-market scope, strategic alliance expenditure, sales force expenditures and discount pricing strategies. Since firms with headquarters located in Taipei spent more in the marketing intensity than those of other city, making other regions seem particular less spending in marketing intensity.

Most previous studies assumed that the larger company size, the more marketing communication programme and intensity spent. Surprisingly, firm with 121 to 160 employees tends to spend more in the marketing intensity. In the Table 6.7 firms with

121 to 160 employees tend to spend more to expand product-market scope, to increase marketing communication expenditures, to invest strategic alliance expenditure, to spend sales force expenditures and implement discount pricing strategies.

In final, in the Table 6.10 advertising firms, the reference position here, had significantly more customer orientation and competitor orientation than other two type firms. Firms with headquarters in Taipei tends to have more orientation than those of other firms. Firm with 121-160 employees tend to have more orientation than those of other firm. However, construction firms committed more resource to the marketing planning than other firms. Headquarters located in Taipei and firms with 121-160 employees tend to commit more resource in marketing area.

6.6. Summary of the Empirical Results

In summary, Chapter six has presented the empirical results to evaluate and specify the separated and full model, and examine the different tests of the hypothesised relationships. Overall, the separated model showed a reasonable representation of the data and reality. Five of fifteen hypothesised direction relationships between constructs were supported as significant, and another two was partially supported in the question 1. Question 2 and 3 produces mixed results(Please see summary in Table 6.11.).

For answering question 4, empirical evidence based on the LSDV specification finds that advertising firms, on average, are better performance , deploy more resources in marketing intensity and more market orientation than other type of firms. Headquarters located in Kaohsiung enjoyed better performance while headquarters located in Taipei tends to spend more in the marketing communication expenditures, to be more market-orientation and resource commitment. The optimal level of company size experiencing best performance is approximately 201-240 employee firms while firm with 121 to 160 employee tends to spend more in the marketing intensity and more resource commitment than other firms. Finally, construction firms committed more resource to the strategic planning than other firms.

Table 6.11. Summary of the Empirical Results

Effects of Marketing Environmental Characteristics and Marketing Strategy on Marketing Performance

Dependent variable	Hypothesis	Independent Variables	Expected sign	Supporting evidence
Sales growth	H1a	Market Attractiveness	+	Yes
Sales growth per employee	H1b	Technical change	+	Yes
ROI	H1c	Competitive intensity	-	No
ROS	H1d	Substitute of competitors	-	No
	H1e	Customer orientation	+	Partial
	H1f	Competitor orientation	+	No
	H1g	Product advantage	+	No
	H1h	Resource commitment	+	No
	H1i	Product-market scope strategy	+	No
	H1j	Promotion	+	No
	H1k	Strategic alliance	+	Partial
	H1l	Distribution channel	+	No
	H1m	Product positioning	+	Yes
	H1n	Sales force	+	Yes
	H1o	Pricing	+	No

Effects of Marketing Environmental Characteristics and Prior Performance on Marketing Strategies

Dependent variable	Hypothesis	Independent Variables	Expected sign	Supporting Evidence
Product-market scope strategy	H2a	Market Attractiveness	+	Partial
Promotion	H2b	Technical change	+	Partial
Strategic alliance	H2c	Competitive intensity	+	No

Distribution channel	H2d	Substitute of competitors	+	No
Product positioning	H2e	Product advantage	-	Partial
Sales force	H2f	Customer orientation	+	No
Pricing	H2g	Competitor orientation	+	Partial
	H1h	Resource commitment	+	Partial
	H2i	Sales growth	+	Partial
	H2i	Sales growth per employee	+	Partial
	H2i	ROI	+	No
	H2i	ROS	+	No

Effects of Marketing External Environmental Characteristics and Prior Performance on Marketing Orientation

Dependent variable	Hypothesis	Independent Variables	Expected sign	Supporting Evidence
Competitor orientation	H3a	Market attractiveness	+	No
Customer orientation	H3b	Technical change	+	Partial
	H3c	Competitive intensity	+	No
	H3d	Substitute of competitors	+	Yes
	H3e	Sales growth	+	No
	H3e	Sales growth per employee	+	No
	H3e	ROI	+	No
	H3e	ROS	+	No

Effects of Marketing External Environmental Characteristics and Prior Performance on Resource Commitment

Dependent variable	Hypothesis	Independent Variables	Expected sign	Supporting Evidence
Resource	H4a	Market attractiveness	+	No

Commitment				
	H4b	Competitive intensity	+	No
	H4c	Substitute of competitors	+	Yes
	H4d	Sales growth	+	No
	H4d	Sales growth per employee	+	No
	H4d	ROI	+	No
	H4d	ROS	+	No

Chapter 7

Discussion of Findings and Implications

7.1. Introduction

The chapter presents the discussion and implications of empirical results of the statistical analysis stated in the Chapter Six. As stated earlier, the three hypotheses were formulated to test the validity of the proposed model. The last research questions examine the difference of performance, marketing strategy and market-orientation and resource commitment by capturing the dummy variables from the statistical model. The discussion and implication of the research findings are summarised in the chapter. Finally, theoretical, methodological and managerial implications are presented.

7.2. Discussion of Results Pertaining to Research Hypotheses H1a to H1j : The Effects of Marketing Environmental Characteristics and Marketing Strategy on Marketing Performance

Hypothesis H1a

Market attractiveness is expected to positively influence marketing performance since it usually reflects increases in demand. After PCA analysis market attractiveness can be characterised as more market growth rate, higher levels of demand per transaction and customers, higher degree of speculative buying and higher level of supplier power, as well as higher sales and profitability in the property market context. The empirical evidence shows that effects of market attractiveness seem to increase profits and sales in the Taiwan property market.

Markets experiencing high rates of growth can be characterised as having high gross profit margins, high marketing costs, rising productivity, increased investment to keep pace with growth(Aaker and Day,1986; Gatignon, Weitz and Bansal,1990). Sales and profits tend to be higher in a market with high market attractiveness and be lower in declining markets. The research findings seems to confirm the Buzzell and Gale 's

(1987) argument, market attractiveness have positive effect on marketing performance. In practice, when market or industry demand is growing, it is easier for all firms to acquire and retain customers and earn profits.

Hypothesis H1b

The greater the technological change in a market, the more diverse will be the opportunities to create value for buyers (Narver and Slater,1990). The research is consistent with the Narver and Slater's(1990) argument, technological change pressure may be substantial and in the short term may produce positive profits and sales. Most of property firms did not invest R&D expenses, so implementation of marketing a new technology property product may be critical.

Hypothesis H1c

Though the question of whether the association between competitive intensity and profitability is attributable to the exercise of market power by incumbent businesses or efficiency differences among businesses (Demetz 1973; Gale and Branch 1982; Ravenscraft 1983; Smirlock, Gilligan, and Marshall 1984) is a point of controversy, both viewpoints imply a negative relationship between competitive intensity and profits. However, the research findings do not confirm this notion since competitive intensity is found to be positive effect on marketing performance. Another similar factor, the substitute of competitors, was found insignificant in both separated and integrated model. This is interesting since one might logically expected competitive intensity and the substitute of competitors to have a negative and significant impact. A possible explanation is that rapid market growth in Taiwanese property market ensures incumbents' strong financial performance even in the presence of market share gains from new entrants.

An alternative explanation is that competitive intensity factors did play the role of a suppressor variable. Accordingly, competitive intensity was captured by price competition and the number of competitors and it is possible that being responsive to market changes may not be enough, and being proactive may be more important. In the case of competitive intensity, it is likely that it did play the role of a suppressor

variable. Suppressor variables play the role of accounting for irrelevant variance, those are shared with another independent variables and not with the dependent variable, thereby ridding the analysis of irrelevant variation or noise.

Hypothesis H1d

The market orientation explanation suggests that firms with a better understanding of what the customer's wants and needs and what the competitor's strength and weakness are more successful, but organisations that are market orientated did not generate a number of benefits for their customers, which could lead to increase sales and higher profits in this study. The empirical analysis suggests one major conclusion related to the effect of market orientation on SBU performance: market orientation did not have main effect on SBU performance in the Taiwan property served market.

The empirical findings about the relationship between a firm's market orientation and its business performance seem robust across previous studies but with exceptions. Most researchers (Jaworski and Kohli, 1993; Slater and Narver, 1994; Matsuno and Mentzer, 2000; Hult and Ketchen, 2001; Nobel et al, 2002; Sandvik and sandvik, 2003; Liu et al, 2003; Tse et al, 2003) found strong evidence of a positive association, whereas several researchers (Greenley, 1995a, 1995b; Pelham and Wilson, 1996; Deshpande et al, 1998; Han, Kim and Srivastava, 1998; Grewal and Tansuhaj, 2001) found either a weak association or no association between a firm's market orientation and its performance. Facing such mixed results, Jaworski and Kohli(1993), Slater and Narver(1994), Deshpande and Farley(1998), Matsuno and Mentzer(2000), Subramanian and Gopalakrishna(2001), Harris and Ogbonna(2001), Matsuno, Mentzer and Ozsomer(2002), Im and Workman(2004) performed research to explore any moderating variables in the market orientation-performance link. Thus, more research work needs to be done to examine market orientation- performance relationship.

Hypothesis H1e

The importance of innovative and unique products offering to the existing property marketing organisations can not be overlooked as innovative and unique products offering increased sales, profits and competitive strength for most SBUs, but in the property market context firms have more innovative products lists did not outperform their competitors. The research is not support for a positive and direct effect on performance from product advantage concept (Gatignon and Xuereb,1997).

Hypothesis H1f

The resource based view within an internal environment focus emphasised the role of resource commitment as sources of competitive advantage and superior performance. In this study after PCA analysis, a firm's resource commitment to marketing is offered as a construct which incorporate the amount of planning, financial and human resources that the firm allocates to the marketing activity(Cavusgil and Zou,1994), adequate level of people, time, and money allocated to the pursuit of the marketing strategy(Day,1986; Ramanujam, Venkatraman and Camillus,1986) and the amount of exercising considerable efforts(Porter et al, 1974) to support the firm's marketing objectives. Empirical research into the effect of resource commitment on firm performance (Menon et al,1999)is not significant. However, further research needs to retest the assumption that allocating high levels of resources will be related positively to marketing performance.

Hypothesis H1g

The net effect of offering a broad line of product-market on sales is expected to be positive. A broad product line can reduce the chances of market share erosion from consumers' variety-seeking behaviour(Szymanski, Bharadwaj and Varadarajan,1993) and minimize market share erosion by acting as an entry barrier such as closing alternative product forms (Johnson and Kaplan,1987). However, a broader product and market scope strategies could have a positive effect on profit and sales if there is excess capability in the system or the possibility of economies of scope exist(Hayes, Wheelwright, and Clark 1988). The effect of product-market scope on performance is not support by the empirical data. This issue needs further assessment.

The empirical evidence shows that product market scope strategy has no significant effect on profits and sales of SBUs. The empirical evidence shows that clear segmentation of individual markets rarely exist, and as competitive pressure increases, strategies for effective market segmentation of products for sale in the property market remain elusive. This is high possibility to make effort on broad market segments because of the fear of losing sales volume, and a tendency to focus on sales volume rather than profitability. As a result, research finding do not indicate that broader product market scope strategy can leader to higher marketing performance.

Hypothesis H1h

The research finding suggested that higher quality and price product generate high sales and profits. The "product positioning" factor incorporates relative quality and relative price compared to major competitors. The marketing mix element can serve as a means of differentiation for competitors' offerings and influence customer attitudes toward a firm's product. In Taiwanese property market context consumer may be willing to pay a premium for better quality goods and services. The empirical evidence supports the Buzzell and Gale's argument. A strategy of higher quality and price might lower consumer sensitivity to price, thereby making it possible to charge higher prices without harming sales(Buzzell and Gale,1987).

Higher product quality could also protect the business from competitive forces(such as bargaining power of buyers) that reduce price-cost margins, superior product quality could also reduce service costs(such as warranty and liability costs)(Gavin,1988). Furthermore, PIMS data base studies indicates that the relative quality of the products or services is the most important factors affecting SBU performance in the long run(Kerin, Mahajan and Varadarajan,1990). Higher quality product leads to stronger customer loyalty, more repeat purchases, less vulnerability from price wars and ability to command premium prices without reducing costs(Kerin, Mahajan and Varadarajan,1990).

Hypothesis H1i

Research on pricing strategy was narrowly defined, in the sense that it focused largely on the effect of price cut for property sales. By employing such as approach, marketers aim to penetrate served market by attracting a large number of customers and wining a large market share. The research finds that discount pricing strategy did not affect the financial performance significantly, so establishing the sign of the relationship between discount pricing strategy and sales is best left as an empirical issue.

Economic theory suggests that consumers are rational and reasonably informed, there is positive association between high level of discount pricing strategy and sales. Therefore, reducing prices can increase sales. The rationale for pricing strategies such as penetration pricing, discount pricing and experience curve pricing can be regarded as grounded in the perceived inverse relationship between price and quantity demand. The possibility of there being a positive relationship between price and sales when higher prices reflect greater prestige of ownership and/or superior quality cannot be completely overlooked (Monroe and Krishnan 1984).

Another possible explanation is that the sign of the relationship between discount pricing strategy and profit would not follow the shape of the demand curve (monotonically decreasing or monotonically increasing) in the property market. When the demand curve is monotonically decreasing, the relationship between price and profit would also depend on the point along the demand curve at which the business is operating(Szymanski, Bharadwaj and Varadarajan,1993). In the inelastic portion of a monotonically decreasing demand curve, total revenues decline with increases in price, whereas in the elastic portion of the demand curve, total revenues more than offset the lost sales from charging higher prices up to the point where the elasticity of demand equals one (Henderson and Quandt 1980).

Hypothesis H1j

The empirical evidence is that the intensity of sales force was found to be related positively to profits and sales, when the adoption of other marketing communication programme showed insignificant effect on the performance measure. Normally, expenditures on these marketing communication elements can increase customer

awareness, facilitate the formation of positive attitudes and behavioural intentions among prospective consumers, and ultimately increase sales for the business(Szymanski, Bharadwaj and Varadarajan,1993). Empirical evidence finds that marketing communication expenditures and profits would not demonstrate a significant positive relationship with profits when the increased sales from spending more on communication elements just offsets or fails to offset the reduction in profit margins that occur when the business spends more. The nature of the underlying relationship is further confounded by the degree to which the scale economies associated with increased expenditures on marketing communications and the scope economies that result from sharing marketing costs with other businesses in the firm's portfolio are captured by the respective business unit(Szymanski, Bharadwaj and Varadarajan,1993).

This research finding seems plausible in the Taiwan property market because the sign of the effect would depend on whether the change in sales more than offsets, exactly offsets, or less than offsets the change in expenditures. All else equal, the lower the expenditure incurred in realizing a dollar of sales, the higher a business's profits would be(Szymanski, Bharadwaj and Varadarajan,1993). However, marketing communication expenditures and profits would not demonstrate a positive relationship with profits when the increased sales from spending more on communication elements just offsets or fails to offset the reduction in profit margins that occur when the business spends more. The nature of the underlying relationship is further confounded by the degree to which the scale economies associated with increased expenditures on marketing communications and the scope economies that result from sharing marketing costs with other businesses in the firm's portfolio are captured by the respective business unit (Szymanski, Bharadwaj and Varadarajan,1993).

7.3. Discussion of Results Pertaining to Research Question 1: The Effects of Marketing Environmental Characteristics and Marketing Strategy on Marketing Performance

In general, the separated model showed a reasonable representation of the data and the hypothesised relationships between research constructs help our understanding of reality. The general hypotheses of the study were that marketing environment and competitive marketing strategy would affect financial performance. While the empirical findings generally support the separated model, one of findings was internal firm factors had a limited role in explaining variance in business unit performance.

The property marketing model proposed in this study is based on three theories. First is the IO-based theory that regards the industry and market structure, that is, the external environment as the main determinant of organisational performance. The second is the resource based theory that considers the internal organisational factors as the most important influence on firm performance. This third is the PIMS paradigm that posits marketing strategy decision as the most important effect on organisational performance.

Consistent with the expectations of industrial organisation theorists, the empirical results indicated that external environment factors were the prime explanatory factors of variance in business unit performance. Market attractiveness was found to be a significantly positive effect on organisational performance in the property market. The market attractiveness are reflected here by market growth rate, supplier power and speculating buying. The technical change pressures are reflected by technological change rate and pressures from customers. The finding is consistent with PIMS studies indicating that operating in profitable, growing markets has a positive impact on business performance. In other words, "*the starting point for a winning business strategy is to pick the 'right' markets or industries in which to participate*" (Buzzell and Gale,1987,p.52). The financial performance is significantly explained by the external environment construct of market attractiveness and technical change pressures. However, since not all the external environmental factors in the model are useful to explaining the financial performance, the results provide only partial support for the industrial organisation based theory.

Inconsistent with the expectations of resource based theorists (such as Barney,1991; Mahoney and Pandian,1992; Peteraf,1993) , the empirical results indicated that firm-specific intangible resources and culture were not the prime explanators of variance in

business unit performance. However, these researchers have suggested that one explanation for these results in the absence of mediating variables in the absence of mediating variables in the specification of the models. That the effect of market orientation on firm performance is moderated by marketing environment were supported by Appiah-Adu(1998).

Several recent theoretical developments in marketing and strategy have emphasised the role of a firm's resource commitment on its survival and success. Confronting previous studies, the results of the research suggest that a firm's resource commitment have no significant effect on financial performance. This research suggests that resource commitment issues are particularly valuable in particular industry, but they are not critical in the property marketing business. This empirical result indicates that resource commitment is not key factor for obtaining superior performance.

In the conceptual model the relationship between product advantage and financial performance was proposed in the context of property marketing. The empirical result indicates that an organisation with property product advantage did not have significant effect on the financial performance. An interpretation of these research findings is that when simultaneously considering the effects of product advantage and product positioning on financial performance, most of the product differentiation effects are captured by the product positioning. Additionally, because of the " level " of the variables, product advantage is probably more likely to be associated with brand or product performance instead of financial performance. However, in a recent study Atuathene-Gima(1995) and Gatignon and Xuereb(1997) found a positive relationship between product advantage and product level outcomes, which suggests that this is an area that requires further empirical research in order to understand the interrelationships between product advantage and their effects on financial or product performance in the property market.

Another plausible explanation is that there could be lagged relationship between market orientation, product advantage, resource commitment and financial performance which was not captured in the model because two year period of questionnaire database was not long enough to capture the effects of performance.

The assertion is confirmed by Ruekert(1992) who found that an high level of market orientation ultimately resulted in superior long-term financial performance.

In the PIMS model with competitive marketing strategy variables, product positioning and sales force expenditures were key predictors of financial performance. These results are consistent with the expectations of theory derived from the PIMS paradigm. The empirical results suggest that in order to improve SBU financial performance, SBU of property marketing business should invest in mechanisms that enhance sales force expenditures and product positioning. However, when competitive marketing strategy variables were modeled along with external and internal environment variables, none of competitive marketing strategy variables were statistically significant explanatory power of variance in business unit financial performance. Some of the counter intuitive findings of this study also need further assessment.

Surprisingly, the study shows that some marketing communication elements including relative advertising expenditures, sales promotion expenditures and distribution expenditures do not have a significant direct on marketing performance. One possible explanation for the empirical results is that no firms gain any competitive advantage from the high level of marketing communication expenditures when every firm spends heavily on marketing mix elements. In such a situation, the large costs associated with marketing communication expenditures can potentially have non-significant or adverse effect on organisational performance.

Another possible explanation is that marketing communication strategy might have lagged effect on performance, current advertising expenditures may improve future financial performance. However, due to shorter time period (small T) in the study, such lagged effects could not be captured. Furthermore, in practice some business with a need for high level of marketing communication expenditures or broad product-market scope are found to have poorer performance, it may be useful to seek alternative marketing programmes, such as sales force or product positioning that main or enhance the firm's competitive position and profitability in the marketplace.

Some of the counter intuitive findings of this study also need further assessment. Although competitive intensity was expected to influence performance negatively,

competitive intensity was found to be a significant positive impact on performance. Since multicollinearity as a possible explanation was ruled out, the alternative explanation of suppressor variable appeared plausible. Accordingly, competitive intensity was captured by price competition and the number of competitors and it is possible that being responsive to market changes may not be enough, and being proactive may be more important. In the case of competitive intensity, it is likely that it did play the role of a suppressor variable. Suppressor variables play the role of accounting for irrelevant variance, those are shared with another independent variables and not with the dependent variable, thereby ridding the analysis of irrelevant variation or noise.

7.4. Discussion of Results Pertaining to Research Hypotheses H2a to H2g : The Effects of Marketing Environmental Characteristics and Prior Performance on Marketing Strategies

Hypothesis H2a

As shown previous Table 6.5., the research finding indicated that higher market attractiveness were associated with a higher likelihood of selecting strategic alliance. In the property industry barriers to entry for potential new firms might be rather low. In highly munificent environments (high market growth and low competitive intensity), there is no need to compete because there are plenty of resources for any existing competitors. Only when resources become scarce do firms need to compete aggressively with one another to obtain the resources need to survive. However, it is unlikely that such freedom from competition would exist in such a sector. The empirical findings suggested that market growth in munificent environments enables firms to strengthen their strategy alliance decision in the served market. By bring together complementary resources owned by different firms, it is likely to create competitive advantage.

Hypothesis H2b

It is clear that technological boom is still in its infancy since 1996 in Taiwan property market. The empirical finding indicates that technical change pressure positively affects promotion and strategic alliance decision. Promotion strategy would be more likely preferred under conditions of rapid technological change because some firms

need to shorten planning time horizons and have immediate sales effect. Accordingly, promotion strategy is more important in changing the timing rather the level of purchasing.

In addition, high technological change significantly increases the likelihood of adopting strategic alliances strategies. A strategic alliance is a relationship between two or more firms that involves the sharing of resources: capital, technology, experience, distribution networks, etc. Strategic alliance involves co-operative activities that go beyond ordinary arms-length transactions, but fall short of mergers. In the property market, marketing and sales agreements dominate the strategic alliances landscape, and these are especially critical for several businesses. Property industries have high levels of strategic alliance in the 21 century. Environmental changes made it increasingly difficult for a single firm to remain competitive advantage. Firms entered multiple alliances to gain market share and avoid technological lockout. Marketing alliances allowed firms to expand shares across geographical and industrial boundaries.

Hypothesis H2c

Competition increases the likelihood of high level of distribution intensity decision. High levels of competitive intensity afford the customer a multitude of choices and compel businesses to find means of increasing distribution expenditures in the Taiwan property market context. Under low competitive intensity environment an organisation will be less likely to be motivated to increase marketing intensity. The magnitude of competitive intensity in an industry has a direct bearing on development of an organisation's strategy. The competitive conditions facing a firm will determine the firm's distribution decision. During the periods of low market concentration, expansion of distribution scope might also include substitutors through expansion into new markets and products. This action has been linked to an increase in perceived entry barriers and resulting performance. The more intense the competition in the property market, the more the company will tend to make distribution elements spending. Overall, the research results suggest that managers seem to focus on distribution when competitive rivalry is intense.

Hypothesis H2d

There is a long history of research in marketing and economics on the competitive strategy implications of the characteristics of a product (Varadarajan and Yadav, 2002). The marketing management literature, innovation and new products provides valuable insights into the linkage between product characteristics and marketing strategy. Seminal works highlighting the differences between tangible and intangible product attributes (Levitt, 1981) provides valuable insights into the linkage between product characteristics and marketing strategies. The empirical evidence shows that the product advantage affects the product-market strategy decision. This implies that when a firm has positional product advantage, the firm will adopt broad product market strategy for attracting current and potential customers.

Hypothesis H2e

The research shows that customer orientation is likely to affect distribution strategy choice and implementation. A firm that is closely focused on delivering value to its customers is likely to make distribution decision. Miles and Snow (1978) and Porter (1980, 1985) strategic typologies has concluded that organisations with high market orientations tend to be more strategically proactive than their competitors with low market orientations (Walker and Ruekert, 1987; McDaniel and Kolari, 1987; Mckee, Varadarajan and Pride, 1989). Slater and Zwirlein (1992) examined these associations by testing the relationships of market orientation and specific marketing strategy elements by surveying the forest industry and concluded that market orientation is related to differentiation strategies, focus strategies and market information strategies. Thus, market orientation appears to provide a strong explanation for distribution strategy because most firms consider how to access customers effectively and put the customer in the centre of the firm's thinking.

Hypothesis H2f

Although it is expected that more resource commitment will enable the strategic action, the research result shows that more resource commitment did not have significant effect on marketing mix decision. Smith and Alcorn (1991) operationalised organisational slack as both unabsorbed and absorbed slack. Absorbed slack is an indicator of the amount resource committed to specific activities

(such as marketing activities), while unabsorbed slack is an indicator of firm liquidity and resources that can be transferred quickly to other uses. In the Taiwanese property market context given that resource commitment represents those resources invested in ongoing marketing activities, it is possible that firms with high levels of resource commitment did not increase deploying marketing expenditure in an effort to compete with rivals. The more resource committed firms usually allocate more human and financial resources to promotion elements. Some extra resources enable companies to improve the depth of promotion planning procedure that will allow managers to make more promotion spending to the property marketing business.

Hypothesis H2g

The research results show that prior performance has a positive effect on distribution decision. Past performance of the firm has been identified as both a source for strategic action and as a barrier to strategic action (Miller and Chen, 1994, 1996). Miller and Chen (1996) argued that strong performance in the prior period makes a firm's management complacent and unlikely to initiate any actions, while poor performance in the prior period may provide organisational learning that enable top management to recognise the usefulness of marketing deployment strategies recently undertaken. Good performance will enable management staff to recognise to replicate or adjust appropriate settings (Cohen and Bacdayan, 1994; Smith and Zeithaml, 1996). However, because of the need for good performance firms to deploy more marketing resources as a means of increasing sales growth and profitability, distribution strategy adjustments should occur in response to prior performance.

7.5. Discussion of Results Pertaining to Research Question 2: The Effects of Marketing Environmental Characteristics and Prior Performance on Marketing Strategies

Little empirical research has examined performance as an independent variable in marketing and strategy literature. However, firms are under pressure to react to past performance results. If a poor performance firm or SBU is under considerable pressure to change marketing strategies and programmes, managers from some poor performance firms will tend to be more critical about the previous actions (Fredrickson, 1985). The performance and environment pressure will encourages

them to rethink their strategies and develop more comprehensive and rational strategic decisions than managers faced with a better performance(Mintzberg, Raisinghani, Theoret, 1996). Poor performance firm might put pressures on marketing managers and make them more likely to search widely information and conduct an in-depth analysis of the surrounding environments(Audia, Locke and Smith, 2000). By contrast, the literature suggests that a good performance will make effortless strategic or marketing decision (Bourgeois, 1980).

The research finds that the degree of distribution decision may be affected positively by prior performance. In the marketing literature firm's capabilities, constraints and budgets profoundly influence the choice of marketing programmes and ability to implement the chosen strategy(Porter, 1980). In the property market context the prior performance will affect the distribution decision. The evidence demonstrates that poor performance monitored by managers will change distribution decision.

Product market scope strategy is positively associated with product advantage and resource commitment. The two factors serve to increase the scope of product-market strategies. The results lend empirical support that the important of the product advantage and resource commitment affect product-market scope decision. Surprisingly, the market attractiveness, technical change, competitive intensity, the substitute of competitors and market orientation are not significant predictors. The results indicate that product market scope decision is not influenced by market growth and competitive intensity. A possible explanation is that most of firms concentrates on narrower product and market. This indicates that property marketing business have a strong local focus and offer narrow product lines with a narrow customer focus relative to competitive competition. Product-market strategy employed by firms is not influenced by some external environmental factors. However, product-market scope strategy is influenced by the degree of unique and innovative product availability and the degree of resource commitment.

As empirical evidence for this study, promotion aspects of the marketing strategy could not affect performance significantly. Promotion element is positively associated with technical change and resource commitment. Therefore, there is a possibility to change promotion strategy when marketing managers face technical

change pressure and have high level of resource commitment. The results suggest that the level of promotion efforts is enhanced by the technical change of product development in the Taiwan property market context. Accordingly, the promotion elements are represented with relative advertising expenditure, relative public relations expenditure, sales force training intensity and sales promotion expenditure. Promotion elements are main content of marketing programme in most firms, so the promotion decision is more likely to be associated with high level of resource commitment.

The distribution intensity is positively influenced by competitive intensity and customer orientation culture. In a competitive property market, a high degree of distribution strategy is needed under intense competitive pressure because the high level of distribution can help gain a competitive superiority over rivals. In Taiwan most firms tend to allocate more marketing costs in web advertising, open house and sale force size when marketing managers face high degree of competition. The empirical evidence is found that customer orientation is the determinant of distribution strategy. The result suggests that SBUs with high level of customer orientation culture tend to allocate more distribution expenditures for sustaining competitive advantage.

The relative product/price positioning is linked to the degree of product advantage. A high degree product/price positioning is found when SBU has innovative, unique and differentiate product sales lists. Other internal and external environment did not influence product positioning significant. Interestingly, the result suggests that firms with product advantage tend to engage in high level of relative quality and price strategy.

Finally, high level of strategic alliance expenditures deployment is directly related to market growth and technical change, reflecting the need to expand strategic alliance to access and serve a growing market with technological change environment. Strategic alliance strategy appears to be more likely in the rapid technical change environment. When the property product has a high degree of technical change rate, the SBU engages in strategic alliance activities to sustain or improve competitive advantage. Property firms seek cooperative partners to create added value to

customers. Although the research focus on the marketing agreements of strategic alliance, companies might gain technical innovation through strategic alliance, especially in construction investment companies. In addition, market attractiveness or growth also seems to compel SBU to strengthen strategic alliance strategy. Perhaps, SBU will increase distribution channel-strategic alliance activities for covering broad customers under the market growth environment.

No significant predictor variables were found for two strategy measures including sales force strategy and discounted pricing strategy. The empirical results indicate that managers did not use price or sales force expenditure as a competitive weapon under the external and internal environment. The results also suggest that many other factors will affect sales force expenditure and pricing decision, such as customer preference or company policy. The determinant factors of pricing and sales force expenditure need further empirical evidence.

No significant predictor variables of performance were found for six strategy measures. Sales growth was positively linked to the level of distribution decision and sales growth per employee was negatively linked to distribution decision. The empirical results indicate that SBU tend to increase the distribution intensity when last period sales value increases and decrease the distribution intensity when last period productivity increases.

The empirical results also suggest that the choice and intensity of marketing strategies is contingent on the environment context within which it operates rather than prior period of performance. It is clear that marketing environment conditions play an important role in helping a firm's management decision. Research results show that a growth market can not enables firms to expand their scope of operations, increasing marketing communication expenditures or adopting discounted pricing strategy. Firms will have less need to reduce uncertainty from spending more in marketing mix elements. However, firms may, in fact, spend more on marketing agreement of strategic alliance to obtain better competitive advantages in the property market.

The research evidence finds that technical change pressure had positive and significant effect on promotion and strategic alliance decisions. When firms face

technical change pressure, this firm needs to develop unique skills and competencies from strategic alliance activities or through more promotion elements. When external environment characterised with many competitors and high level of price competition, firms tend to pursue more distribution intensity including web/internet, open house and number of sales people. The action may be linked to an increase in perceived entry barriers and resulting performance. The threat of competitors was unrelated to any marketing mix decision. The insignificant findings is logical argument that in the high level of entry barriers, substitute threat and buyer power, firms may have numerous options in marketing strategic decision.

The research indicates that firms with more market-orientation would be more involved in exploring distribution strategic actions as a means of competing effectively against rivals. However, resource commitment may be heterogeneous in many ways, and it is therefore important to point out how heterogeneity might affect the intensity of strategic actions. Resource commitment was found to play an important role in making product-market scope decision and promotion decision.

With many effective competitors, firms will need to more carefully scan their prior performance as they attempt to make marketing strategic action. However, prior performance is found to be weak effect on marketing decision. This could reflect that prior performance did not influence marketing decision. This is consistent with research in the strategy area which suggests that strategic actions are contingent upon the different external and internal environments. Prior performance shows weak relationship with the elasticities of marketing mix related decision.

7.6. Discussion of Results Pertaining to Research Hypotheses H3a-H3d and H4a-H4c: The Effects of Marketing External Environmental Characteristics and Prior Performance on Marketing Orientation and Resource Commitment

Hypothesis H3a

Although there is still the possibility that market environment may significantly affect the level of market orientation(Pelham and Wilson,1996; Jaworski and Kohli,1993), the research findings showed that market attractiveness did not have significant effect on market orientation. Appiah-Adu(1998) suggests that a firm has good performance

with minimal market-oriented efforts in transition economies characterised by strong demand and market growth. On the other hand, if the market demand potential is weak, customers are expected to emphasise value and firms must monitor and respond to customer needs and competitor actions to be competitive (Okoroafo and Kotabe,1993). Clearly, it is expected that market attractiveness has significant effect on performance.

Hypothesis H3b

The research findings shows that higher technological change were associated with a higher likelihood of implementing consumer orientation. The findings confronted with Jaworski and Kohli's (1993) and Houston's (1986) argument. Jaworski and Kohli(1993) suggest that organisations with high technical change rate may be able to obtain a competitive advantage through technological or product innovation, thereby diminishing the importance of a market orientation. By contrast, organisations that work with stable technological environment or stable customers' preferences must rely on market orientation to a greater extent (Bennett and Cooper,1981; Houston,1986; Kaldor,1971; Tauber,1974). However, the research results suggest that use market orientation as a complementary means rather than an alternative means to technological orientation to maintain competitive advantage in the Taiwanese property market context.

Hypothesis H3c

The research indicates that both consumer and competitor orientation would be more likely preferred under conditions of higher substitute of competitors. Organisations in more competitive environments may be expected to be more market –oriented(Lusch and Laczniak,1987). As competitive intensity increases, so does a firm's need to be market orientated(Houston,1986). Therefore, in highly competitive environments, greater emphasis on market orientation is required for improving performance(Kohli and Jaworski,1990). Greater competition leads to a variety of choices for customers and a firm must identify customers' changing preferences and respond accordingly (Appiah-Adu,1998). However, under high competitive environment, customers have many alternative options to satisfy their needs and wants and an organisation with less market oriented is likely to lose customers to competition. The implication is that the

benefits offered by a market orientation are greater for firms operating in a highly competitive environment (Appiah-Adu,1998). Lusch and Iaczniak (1987) suggest that organisations in more competitive environments may be influenced to be more responsive to the changing needs of the marketplace, and to be more market orientated.

Hypothesis H3d

It is clear that performance also is meant to have feedback on the environment in the sense that the average and varied performance of the firms in the last period shape the next period's business environment(Dickson, Farris and Verbeke,2001). The performance outcomes will affect both the resource base of the firm and the environment in which it operates(Hooley et al,2001). A performance superior to competitors is likely to result in enhanced market orientation culture. However, The feedback loops presented in the model need further conceptual and empirical research(Hooley et al, 2001). Although this research examines the feedback loops from prior performance to market orientation, no prior performance has significant effect on market orientation. This indicates that a firm with implementing market orientation is not affected by last period performance.

Hypothesis H4a

When market was monitored as more growth rate, SBU might have higher level of demand and higher level of supplier power. SBU with high market attractiveness tends to allocate adequate level of people, time, and money and exercise considerable efforts to marketing activities. The research assumes that market attractiveness will affect resource commitment positively. However, the research result shows that market attractiveness do not have significant effect on resource commitment. The empirical evidence that firms did not commit more resource for marketing activities when market growth.

Hypothesis H4b

Managers of SBUs operating in less competitive environments tend to feel less threatened and more confident(Dutton,1993). This situation is likely to make the firm operated as a closed system and lose its ability to react and identify to the various issue that may arise from the environment. The empirical evidence is that firms

operation in highly competitive environments is under pressure to be committed to marketing activities. The existing need to monitor the environment and differentiate the offerings across markets makes the firms more resource committed to their marketing operations.

Hypothesis H4c

A firm's commitment to marketing is expected to increase when managers have achieved past performance goals. In the exporting literature export commitment is a function of resource availability(Cavusgil and Nevin,1981). When the export operations performance well, the various internal groups(such as top management, employees from other department and shareholders), investors and credit institutions are more likely to support the exporting activity within the firm. Accordingly, the marketing managers of poor performance might have fewer resources available and less support from the top management, and consequently the SBUs might become less committed to the marketing activity. Past performance is likely to shape the degree of resource commitment to marketing programme. The best our knowledge, no study in the marketing literature has empirically tested this relationship. Hence, it is important to examine whether past performance levels are of large, little or no consequence to the firm's resource commitment. However, this research finding did not support the above statement that prior performance has significantly positive effect on performance. The issue need further empirical assessment.

7.7. Discussion of Results Pertaining to Research Question 3: The Effects of Marketing External Environmental Characteristics and Prior Performance on Marketing Orientation and Resource Commitment

Increase in technical change pressure in product development has a significant influence on the level of market orientation. This influence may be due to the enhancement of customer orientation activities with increase in customer pressure for new product technical development. Accordingly, customer orientation and competitor orientation are influenced by the substitutes of competitors. On the other words, market orientation culture is influenced by entry barrier, buyer power and the threat of product substitute. The results suggest that SBUs implement high level of

market orientation when SBUs face high level of entry barrier, buyer power and the threat of product substitute environment.

No significant influence of external environment and prior performance on the level of resource commitment. Although the substitute of competitors factor seems to influence the level of resource commitment, the F-ratio shows non-significant in the estimated equation. Therefore, the determinant of resource commitment need further empirical evidence and identify other explanatory variables.

It is important to illustrate the influence of performance feedback loops on the level of market orientation and resource commitment. Increase in sales and profitability did not have a significant effect on the level of market orientation. The research findings is inconsistent with the Pelham and Wilson's(1996) empirical evidence. Pelham and Wilson found that increases in profitability have a significant impact on the level of market orientation. The results suggest that prior good or bad performance did not influence market orientation culture in a SBU.

7.8. Discussion of Results Pertaining to Research Question 4 : What Differences Exist in Marketing Managers' Perceptions Regarding Marketing Strategy and Performance

The research uses LSDV model to capture individual difference in the proposed model. The approach is particularly useful when there is considerable heterogeneity in the data but relatively weak theoretical criteria (Ramaswamy et al,1993). Four conclusions emerge from the empirical results shown in the Table 6.4., 6.7. and 6.10.

1. Advertising companies, firm headquarters located in Kaohsiung and firms with 321-360 employees achieve good marketing performance.
2. Advertising companies, firm headquarters located in Taipei and firms with 121-160 employees tend to make greater marketing efforts.
3. Advertising companies, firm headquarters located in Taipei and firms with 121-160 employees have high level of market orientation.
4. Construction investment firm, firm headquarters located in Taipei and firms with 121-160 employees tend to have high level of resource commitment.

The advertising firms, on average, had significantly better performance than construction and brokerage firms during the two years period. In Taiwan construction investment companies had poorest performance. Because the SBU of property marketing business competed in the prime metropolitan, headquarters located in Kaohsiung enjoyed better performance than other major metropolitan including Taipei and Taichung. The empirical evidence shows that the larger company size, the poor the financial performance. The optimal level of company size experiencing best performance is firm with 201-240 employees. However, there is no significant difference with smaller companies.

Advertising firms significantly deployed more marketing intensity for sustaining competitive advantage than the national norm. This empirical evidence is consistent with the expectation that Taiwan advertising firms are classified into strategic orientation firm with broader product-market scope, more marketing communication expenditures, strategic alliance expenditures, sales force expenditures and discount pricing strategies. Most previous studies assumed that the larger company size, the more marketing communication programme expenditures and intensity spent. Surprisingly, firms with 121 to 160 employees tend to spend more in the marketing intensity. In final, advertising firms are significantly more customer orientation and competitor orientation than other two type firms. Firms with headquarters in Taipei tend to have more market orientation than other firms. Firms with 121-160 employees tend to have more market orientation than other firm. However, construction firms committed more resource to the marketing planning than other firms. Headquarters located in Taipei and firms with 121-160 employees tend to commit more resource in marketing area.

7.9. Theoretical Implications

The study also makes a contribution to the emerging literature on theories of competition in marketing(Dickson,1921,1996; Hunt and Morgan,1995, 1996; Slater,1995a). As a result, external environment characteristised with market and industrial structure factors do have an important role in explaining SBU performance. The analysis of specific relationships between marketing strategy and performance

highlighted the role sales force expenditures and product positioning as an important driver of SBU or firm success. To better explain the marketing performance, it is imperative that the property marketing models tested in future research should include the sales force and product positioning elements that are found to have a significant effect on financial performance.

Previous marketing literatures have shown a common understanding of the sources of performance difference is emerging across the three disciplines- IO, RBV and PIMS. This same theories have inspired theorists in strategic management and marketing to develop theories of competitive advantage that do primarily focus on explaining performance differentials between firms. Marketing's main contribution to a managerial theory of the firm could be well the development of normative approach.

In terms of the marketing literature, the study provides three important insights. First, it provides some empirical support for recent theoretical developments that combine the IO, RSV and PIMS theories of SBUs and organic perspective on strategy. These developments suggest that the external environment force have greater impact on marketing performance of SBU. Accordingly, the study makes a contribution to the emerging literature on theories of competition in marketing(Dickson, 1991; Hunt and Morgan, 1995; Slater,1995a). The study suggests that future researches focused on a subgroup of a firm's external and internal environment force might generate "spurious" relationship.

The another insight refers to the discussion on the conceptualisation of market orientation(Jaworski and Kohli, 1990). The two most popular conceptualisation of market orientation have been proposed by Kohli and Jaworski(1990) and Narver and Slater(1990). The first one focuses on intelligence generation, dissemination, and use, whereas the second one suggests that market orientation should be considered a culture orientation that is manifested in three dimensions: customer orientation, competitor orientation, and interfunctional coordination. In the study, the operationalisation and study of market orientation adopting two dimensions, customer orientation and competitor orientation. The thesis suggests that market orientation as culture orientation is a different construct from intelligence generation and dissemination). From a conceptual point of view, the study suggests that intelligence

generation and dissemination activities should be considered as a consequence of firm's market orientation, not as a form of measuring market orientation in the property market, thus supporting Narver and Slater's (1990) conceptualisation.

7.10. Methodological Implications

George and Jones(2000) said that specify relationships among constructs in causal terms, the duration of effects, the time lag between causes and effects, and differences in rates of change are often left unspecified. George and Jones(2000) are suggesting we consider time in all of its theoretical richness. In this study it should be emphasised that there are some problems associated with the use of cross-section data. Most previous studies employed five year or three year average of variables, rather than employed a time series (trend) analysis of each business. Such cross-section approach precludes the study of changes in these variables over time, and it may overlook certain factors specific to this time period that have an impact on the results of the study. When the period of interest was selected to balance many of these effects, a longitudinal analysis of the data base and comparisons of the research results with those derived from an examination of other time periods are appropriate.

The difference between the results of this study and previous studies may be due to the fact that the time period under consideration is quite different from previous research. When marketing environment, strategy and performance change over time, the significant power of the empirical results should be changed. A plausible explanation is that the 2000-2001 period is regarded as a distinct period in Taiwanese property market.

This would be an example of a "spurious relationship" occurring from misspecification. The problem is more difficult if the research variables is time varying or a model has dynamic terms. Misinterpretations are inevitable if only a set of data is considered. A relationship is derived which is different from the "true" relationship from an under-specification model because the exclusion of other potentially useful variable in the model tends to obscure the existing relationships. The fact became clear when Pindyck and Rubinfeld(1998) stated that leaving out a relevant or

important variable from the model results in biased estimates of the coefficients of the variables in the model. However, adding an irrelevant variable or significant variable to the model, only results in “inefficiency” and thus the existing relationships among other variables will not be obscured. Therefore, the study enables a stronger test of the durability of the relationships among different research constructs.

Competition is a dynamic phenomenon. Markets change, the rules of competition change, technology changes, and therefore firm success is not permanent. Previous studies cannot explain why and how success in the marketplace can be erased. However, the study explains the durability of the relationship by developing a process and dynamic model and provides insights that may be helpful for follow-up research.

7.11. Managerial Implications

The findings that sales force expenditure and product positioning are prime determinants of business unit performance should be a source of encouragement to marketing managers. Marketing expenditures and intensity allocation is an important managerial issue since it impacts on business unit's costs, competitive position, marketing effectiveness and profitability in the property market. However, inappropriate marketing communication costs deployment can potentially result in a loss of competitive advantage or gaining no superior performance.

By incorporating multiple variables to be assessed simultaneously, this comprehensive model also enables researchers to more closely represent the complex constructs and multiple contingencies faced by managers in the “real world”. The findings presented in this study, if replicated by further empirical studies, will be of assistance to property marketing managers in formulating marketing strategy. Policy makers working in the industry should take into account these results when formulating national economic development policy.

Although firm specific resources, particularly those that are intangible or tacit such as market orientation, product advantage and resource commitment, appear to have no significant effect on SBU performance in this study. However, managers can not ignore the importance of those resources and were advised to follow the general

guidelines suggested by the resource based theory of the firms, that those resources that are scarce, difficult to imitate and valuable to customer are more likely to become underlying sources of competitive advantage, when faced with strategic investment decisions and strategy formulation. Furthermore, the classification of firm resources into "normal" and "strategic" and the identification of areas where the company may be lacking or excelling can provide important guidance as how to make important investment decisions.

Resource commitment is another type of firm intangible resources that are clearly relevant for marketing strategy development and for the performance of firms. Confronting previous research findings, the study shows that resource commitment has no significant effect on the financial performance. The results of the study indicate that resource commitment might be costly and might not always pay off (in terms of financial performance). However, managers should be careful to evaluate the degree to which they wish to commit resources according to the dynamic market conditions in which they operate.

In this study market orientation, product advantage and resource commitment have mixed influence on the strategic decisions. Therefore, managers that have the desire to change or improve a firm's strategic decisions will make an important step forward by examining the organisational strength and weakness first. The assessment of a firm's organisational characteristics and culture orientation may help it in its decision-making process as to how to proceed in terms of development of those intangible resources. The research suggests that the development of market-orientation, product advantage and resource commitment, on average, does not generate competitive advantages in dynamic markets may imply that the imitation of competitors is timely and the strategic resource changes are so slow. Only firms with more customer orientation are able to achieve appropriate the temporary return of investment from their "unsustainable" competitive advantages.

7.12. Summary

The research findings support partially the industrial organisation theory and PIMS principal. Market attractiveness, technical change, relative price/quality positioning

and sales force expenses were found to be significant variables on influencing financial performance. Prior performance and marketing environment produce mix effect on marketing strategy decision. Prior performance was found to be the weak effect on the marketing mix decision. The substitute of competitors was found to be important explanatory factor to the market orientation and resource commitment while prior performance was not found to influence market orientation culture and resource commitment. In final, advertising firms achieve better marketing performance, make greater marketing efforts and high level of market orientation during the survey period.

Chapter 8

Conclusions and Recommendations for Future Research

8.1. Introduction

The chapter presents a summary of the thesis and the conclusions that can be drawn from it. The chapter is organised in four sections. The first section provides a discussion of the theoretical, methodological and managerial contribution. Second, the limitations of the research and the results of this research are discussed, and directions for future research are provided. Third, a general overview of the study, its objective and research design is presented. This summary of research findings is discussed in the context of the theory driving the conceptual model developed in the thesis.

8.2. Contributions

The thesis aims to make theoretical contribution, empirical and managerial contributions to knowledge in the marketing strategy and strategic management fields. The theoretical, empirical and managerial contributions to the marketing and strategy literature are briefly discussed below.

8.2.1. Theoretical Contributions

The study contributes to marketing theory in several ways. First, the research results can add empirical support for marketing environment, strategy and performance. Specially, the study examines the marketing environment, strategy and performance relationships over time and develops a dynamic marketing strategy model. The usefulness of dynamic model remains greatly unexplored, despite general agreement regarding the critical nature of dynamic as a marketing strategy model.

Second, the research adopts a broad but powerful framework for studying the problem by integrating three perspectives: industrial organisation economics(Porter,1980,1985,1991), the resource based view(Wernerfelt,1989;

Barney,1991) and PIMS paradigm(Buzzel and Gale,1987). These theoretical perspectives address the complexities of organisations' performance by proposing competing and conflicting views. The conceptual foundations of the study rest on only borrowing concepts from these different economic paradigms but on a synthesis of these different theoretical perspectives and the reconciliation of these completing and conflicting paradigms. This is the first comprehensive empirical research that integrates the characteristics of the property marketing industry with these vital perspectives of organisation studies in processes of finding means of achieving high marketing performance. The research must be replicated in diverse environments over time to increase confidence in the nature and power of the theory (Narver and Slater,1990).

Third, this is thought to strengthen the model's theoretical support and contribute to the strategy dialogue(Day,1992). In a broader sense, the test of the dynamic model helps to fill out an important gap in the development of the new theories of competition and superior performance, as those recently suggested by Farjourn (2002). Also, the potential contributions of this research will hopefully extend beyond marketing to the field of strategic management in general. As discussed in the Chapter Three, the IO and RBV theory posit non-recursive, that is, reciprocal and feedback effects from performance to conduct and to the environment. Theories postulate that managers not only react to the environment pressures but also engage in changing it to improve their competitive advantage. However, previous studies such as non-recursive relationships could not be tested formally due to the cross-sectional nature of the data. Further, previous study ignores the dynamics in the environment and its impact on the marketing strategy and performance. Additionally, since the strategy and performance sequence essentially reciprocal and changing over time, the question 'which comes first?' cannot answered in a cross-section study. In this study, longitudinal study was carried out to formally test the plausible recursive relationships in the model by collecting time series and cross section data. Also, pooled time series and cross section can provide meaningful insights about the effect of the changing business environment on the marketing conduct and its impact on the marketing performance.

The study adapted the IO, resource based view and PIMS paradigm theories of marketing and strategy to extend the organisation-environment-strategy-performance(OESP) framework and develop the model of property marketing in the property market in Taiwan. Thus, a richer and more comprehensive model of property marketing was developed by integrating key conceptual frameworks across multiple disciplines. Advances in marketing science are characterised by constructs being conceptualised progressively from simple and one dimensional phenomena measured to complex multidimensional phenomena (Bagozzi,1984). In the model developed here, the concepts of the marketing environment, strategy and performance in the proposed framework represented with multiple constructs, with each construct further represented with multiple items to encompass the rich and broad domain of the model constructs. Therefore, the model proposed and tested here is both theoretically meaningful and managerially useful.

This thesis views the process and dynamic model as a complementary perspective rather than a substitute perspective. By incorporating key constructs from IO economics, the resource based view and PIMS paradigm in an integrated model , the study makes an important theoretical contribution. Tests of network relationships among marketing environmental, marketing strategy and performance variables reported here contribute to strengthen what Cespedes(1991) terms " relatively thin empirical foundation " of marketing strategy research. While only 7 of the 21 hypotheses relationships are supported, the hypotheses that are not supported in the research also contribute toward providing richer explanations of relationships among study variables.

8.2.2. Methodological Contributions

Previous cross-section studies restrict conclusions to those of association, not causation(Narver and Slater,1990). Longitudinal framework and panel survey research design would provide more insight into probable causation. The proposed dynamic and process models are estimated by using pooling regression. Comparing a large set of sample across both firms and time can enhance our ability to reach good causal inferences by allowing the research to compare both across time and firms. In previous studies dynamic inference from cross-section data may be questionable.

The study has more confidence for presenting the network relationships by using pooling regression method.

An additional methodological contribution is that the model is tested with a reasonably large and diverse sample. The findings from such a diverse sample are not only more generalisable, but also provide a stronger foundation for developing a theory of property marketing. The study contributes to existing knowledge because it fills a gap in the literature for scholars to explore the effects of marketing environment, strategy and performance in other national cultures (Narver and Slater, 1994; Deshpande et al, 1993) in order to enhance our confidence in the important of its universal power.

Prior researchers attempting to explain variance in firm or SBU performance have utilised under-specific models, thereby biasing the effect of factors included in those model. By building and testing an integrated model of business unit performance, the research attempts to alleviate the limitations of prior research and also provides a more realistic and completed picture of factors underlying differences in business performance. The study complements recent efforts to extend the knowledge regarding the network influence of marketing environment, strategy and performance in the developing countries. From an empirical viewpoint, the study extends the model and adds the knowledge body to the marketing and strategy literature.

As suggested by Veddar (1992), studies of success provide three potential benefits: as descriptors, predictors and guidelines for action. Although an examination of variance is not necessarily indicative of causality, the research provides an opportunity to identify characteristics associated with performance and it is possible for firms to learn from these descriptions. Furthermore, it is possible to identify the relative importance of the factors leading to superior performance, managers can do a more efficient job of allocating scarce resources.

Although the research focus on a single industry limits the generalizability of the findings, it should be noted that single industry studies are warranted when the internal validity of the study is more important than the generalizability of the results (McKee, Varadarajan and Pride, 1989). Because one of the primary objectives

was to explore possible boundary conditions for a fundamental marketing premise, the research attempts to minimise systematic and random noise attributable to industry difference.

From a research methodological perspective, the property marketing model proposed and tested in the study will not only contribute to develop a more comprehensive understanding of marketing environment-strategy- performance relationship in property firms, but also help in exploring some of the modelling, conceptual and methodological limitations in the marketing, strategy and management literature. The methodological limitations have been overcome by empirically testing the model with data from a wider range survey of marketing managers in property firms. Also, the study uses the appropriate statistical methodology for model estimation. Accordingly, the study seeks to provide empirical support for the nature of performance-strategy-environment and performance-environment-strategy feedback loop relationship. To date, the feedback loop between marketing environment, strategy and performance has not been empirically in previous studies.

8.2.3. Managerial Contributions

From a managerial perspective, the research can make a contribution to the understanding of key sources of superior performance. The development of valid instruments to measure key constructs is one step in that direction (Slater,1995a). More importantly, the notion that there are several variables that are important to maintain an edge over the competition is also of value. Further, the research provides a general framework on the marketing function of an organisation that can provide solid guidance to academic researchers and practitioners for discovering alternative means of improving performance and gaining competitive advantage.

Future research should investigate the complex set of interrelationships that affect the marketing strategy/performance relationships, and to what extent marketing strategy or environment are responsible for marketing performance. The study provides a foundation for future research regarding what are " best practice" in marketing strategy, what role of organisation, product, industry, market and other environmental variables play in implementing marketing strategies, and how should managers make

decisions regarding those strategies. To date, marketing literature has focus on other consumer products, property managers have had little opportunity to benefit from academic research in general. This research supplies an important link not only between existing strategy and marketing studies, but between theoretical concepts and managerial applications as well.

Managerially, due to increasingly business competitive and economic pressures, more and more property firms are forced to allocate their resources in marketing activities. As a result, managers are constrained to conduct their business- in terms of marketing strategies in order to compete effectively in the property marketplace and become interesting in understanding the effects of marketing environment and strategies on marketing performance. Therefore, it would be useful to identify the environmental factors and marketing strategies that the property marketing managers can leverage their resources of firms in order to improve their corporate market performance. In sum, by identifying the factors that influence the desired market performance, the study will suggest how property marketing managers should effectively leverage their marketing resources in order to improve their SBU performance under dynamic environment. On the other words, the study intends to develop a more comprehensive model of property marketing that is managerially useful.

8.3. Research Limitations

The theoretical, empirical and managerial limitations of the research are briefly discussed in the section.

8.3.1. Theoretical Limitations

One important limitation relating to the operationalisation of the study was the focus of the single industry. Future research will need to test whether these results hold across industries. Therefore, the extent to which the results obtained are useful will depend on whether similar analyses testing other service marketing also shows such patterns. It is important suggest that results from a single study cannot provide strong evidence for validity of measures. This study produces a list of marketing strategy indicators that satisfy important measurement criteria. However, this set of indicators should be assessed and refined in other research contexts.

Despite efforts in adapting a Western concept to suit to developing country and property marketing business context, the application of such an OESP theoretical framework might preclude the consideration of other possible important variables. The thesis attempted to synthesise work from the literature of marketing strategy, business policy, industrial organisation economics, resource based view and integrate a variety of theoretical perspectives. Each theory suggests some prime factors that could explain variance in business unit performance. A limited set of variables were selected from each theory or school and it is likely that there are more factors that do account for the remaining (unexplained) variance in business unit performance.

In this comprehensive model the selected variables were examined in the context of main effects. The state of theory development limited the extent to which interaction hypotheses could be posited. Therefore, in the study theoretical propositions regarding the nature of interaction relationship among the variables were not tested. Further research examining these issues is needed. The proposed model extends the marketing and strategy literature to examine sources of superior performance and marketing strategy decision, by suggesting a causal network among the different constructs involved, and not just direct effects. Through this research represents an advanced study, the research did not consider moderating or interaction effects in the model which might be work. This will be addressed in the future research work.

The study was not designed to include suppressor variables. Theoretical explanators were provided for a priori expectation that competitive intensity would have negative path coefficients. However, competitive intensity were found to be playing the role of suppressor variables. Further, Cohen and Cohen(1983) point out that variables are more likely to become suppressors in some models when the independent variables are made of liner composites of other variables. In future research, a greater understanding of the role of suppressor variables must be developed.

Although time series cross section research may be helpful to trigger a change process in the organisation, a true understanding of the process in the network relationship among marketing environment, strategy and performance require a closer observation a firm's activities and the decision made by managers. As suggested by Deshpande

and Webster(1989), ethnographic methods such as participant observation or content analysis might be interesting methods that can be address these issues.

8.3.2. Methodological Limitations

Two statistical issues also should be mentioned. One of the more serious problems of any misspecification of when events occur is that causal relationship is over or underestimated (Michell and James, 2001), such errors can lead to faulty conclusions about theory and practice. In addition, many of structural equation modelling may end up indicating incorrect causal paths and causal effects and may also suggest the incorrect ordering of events. We believe that marketing and strategy discipline needs to seriously consider issues of time in both theory and method in the future research.

The use of key informants can be considered another methodological limitation of the study that may affect the measurement of variables and the estimated model. Despite the fact that all of the different checks supported the quality and knowledge of the informants, this does not rule out the possibility that perceptual biases may be affecting the informants' assessments of organisational variables. This is the major reason why the use of multiple informants is recommended in future research.

Although the sample size had enough statistical power, a longer time period would have provided stronger tests of all the hypotheses and have provided greater confidence in the results. The short time period damaged the development of pooled regression. Despite the fact that the model showed a reasonable level of representation of the data and explained an important percentage of the covariation among the variables, some of the fit indices are not as high as would be desired. However, the fact that a cross-section domain (with large cross section and small time period) study was used suggests that the obtained level of fit are even more reasonable. However, R-squared, by itself, does not necessarily indicate a good or a poor fit. Pindyck and Rubinfeld(1995) states that “ *In time series studies, for example, one often obtains high values of R-square simple because any variable growing over time is likely to do a good job of explaining the variation of any other variable growing over time. In cross-section studies, on the other hand, a lower R-square may occur even if the model is a satisfactory one, because of the large variation cross*

individual units of observation which is inherently present in the data. “ Although the research collected cross section and time series data, the pooling regression is still cross section dominance research. Therefore, The research model cannot obtain higher R-square. Therefore, two year time period may limit confidence in the empirical results. Future research may employ a longer time span to increase confidence to examine network relationships among marketing environment, strategy and performance.

The issue of mail survey bias can also be a concern when examining the results of the study. Assessing both exogenous and endogenous constructs by the same method can exaggerate the covariation of the variables, just because of the presence of common method variance. This is a research limitation that is normally present in all survey research, as is the case with the presence of social desirability bias. Social desirability bias refers to the fact that informants may report what they think is “ socially correct or desirable.” Particularly, the type of bias can be major concern when subjective performance measures are requested. However, in any study both common method bias and social desirability are not completely ruled out, and may be inflating the observed associations between variables. Furthermore, it is important to point out that there is a likelihood of some firms accepting marketing philosophy in principal but not practising its realised strategies effectively, probably due to environmental and resource constraints reducing the effectiveness of marketing strategy.

Another primary limitation was the strong multicollinearity in the analyses of the precursors to each financial performance variables. The findings require that one be cautious in generalising from results. Furthermore, future studies need to identify common factors that help to explain the large shared variance in such situations.

Further research might also examine other variables that were not included in this study. The study is limited in its scope as it examined only two constructs of marketing environment: external and internal. Other important constructs or variables may exist that were not incorporated in the research but should be considered in the future research.

For researchers, the empirical results underscore the potential problems associated with collecting subjective measures from and cross section-time series data from the same source for both dependent and independent variables. Specifically, common method variance may inflate an expected positive effect or attenuate an expected negative effect between variables(Voss and Voss, 2000). Further research should be more appropriately objectively or from the customer's perspective.

8.3. Suggestions for Future Research

Given the perceptual nature of the data used here to reflect underlying variables, it is important to recognise the potential for measurement error associated with use of the key informant approach(Phillips,1981). One logical extension of the measurement aspect of this study is to collect data from multiple informants with each business unit. Multiple informant approach allows one to evaluate the degree of shared consensus regarding the latent variables being study and measured. In addition to employing multiple informants within each organisational unit, data from external observers or content analyses of published data can be used to provide further assessments of construct validity for measures of marketing strategy, environmental and performance dimensions. The use of single informant could have introduced " informant bias" and it may be necessary to measure the constructs with multiple informants and average group responses.

In the future research the proposed model extends the marketing and strategy literature in sources of superior performance, by suggesting a causal network among the different constructs involved, not just direct effects on performance. Though this study represents an advance, one limitation of the conceptual development is that, with the exception of the external moderator external or internal environment factors, it does not consider other moderating or interaction effects in the model which might be at work. This interaction term should be addressed in future work.

The research presents a preliminary step toward gaining a better understanding of how marketing environment, strategy and performance evolve within the property service marketing business. Further research need to extend these research by collecting longer time period and by more explicitly modelling the performance effects of

marketing environment and strategy-taken across national and industry borders. It is hoped that this study will serve as an initial basis for further research.

Since the proposed model encompasses a large of constructs, the trade-off between breath and depth in the research is resolved in favour of testing a broad overall model of property marketing. Since the proposed model is quite complex, with a large number of constructs and measures, it maybe difficult to estimate the full model. To overcome this problem, a number of submodels separately using panel and multiple regression. However, which one is the best model need to further empirical evidence.

The performance construct is measured with only four items- sales growth, sales growth per employee, ROI and ROS. Future studies will need to examine a much broader range of performance outcomes to mirror the multidimensional nature. Another primary research limitation was the strong multicollinearity in the performance. This finding requires that one be cautious in generalising from results. Furthermore, future studies need to identify common factors that can help to explain the large shared variance in such situations.

The marketing decision structure (including formalisation, participation or specialisation) is an important managerial issue, especially in the developing countries. The process and dynamic model might leave out other variables that could be relevant. The extended model including strategy process dimensions is likely to provide a better explanation and a high R square for the marketing performance. Although it is well recognised that strategy process variables and organisation structure variables also influence the operation of a business unit, and play an important role in explaining business performance variance, only limited efforts were undertaken to include them (through the measurement of resource commitment) in this study. Although this study tested and compared an integrated model of business unit performance, the model is still under-specified. Further research is needed to incorporate organisational structure factors in the performance model. A number of researchers(such as Bonoma and Crittenden,1988) have argued that the process of strategy implementation may influence the content of strategy formulation, and therefore any attempt to measure the quality of strategy formulation using financial outcome without considering strategy implementation is telling only half story. Since

these factors potentially affect marketing performance. In future research, the proposed model may be extended to include strategy process dimensions. However, before expanding the model, further empirical verification of its actual formulation is thought to be necessary.

The effects of environment and strategy dynamics on performance should be examined. If the market is rapidly expanding or rapidly shrinking, an assumption of stable market size is appropriate. Future research should examine the long-term effects of marketing environment, strategy and performance, such as the time lag effects between marketing environment and strategy and their impact on performance in order to provide greater insight. The research could not make conclusive statements about the insignificant impact of prior performance on marketing mix decision in the absence of long time series dataset. This would be an important issue for further research if relevant data become available.

8.5. Conclusions

Determinants of business performance and marketing decision have been a major focus of research in the disciplines of marketing, strategic management, industrial organisation economics and resource based view during the last two decades. By adapting the industrial organisation, resource based and PIMS theories, the study proposes the organisation-environment-strategy-performance (OESP) framework and a model of property marketing in the Taiwan property market. The thesis proposed and tested an integrative model of business performance incorporating the major determinants of business performance, internal and external environment, and competitive marketing strategy.

The thesis proposed and tested hypothesised relationships among four external marketing environment, four internal marketing environment, seven marketing strategies dimension and four performance variables. By focusing on both construct and tests of substantive relationships, the study aims to strengthen the empirical foundation of marketing strategy research. The research findings reported are based on a mail survey of 102 property marketing business. Separated and integrated model were developed, and the relationships presented in the research questions were tested

using two-year panel survey and retrospective longitudinal study(2000-2001) of 102 firms in the Taiwan property industry. Pooled, cross-sectional time series regression and multiple regression were employed to test the research hypotheses and exploratory propositions. This study enables a stronger test of the durability of the relationships posed in previous research by identifying whether the relationships obtained in that research persisted over time.

Four conclusions emerge from the empirical results briefly are discussed in the following.

1. Factors Affecting Marketing Performance

Consistent with the expectations of industrial organisation(IO) theorists, the empirical results indicated that external environment factors were the prime explanatory factors of variance in business unit performance. Market attractiveness and technical change pressure were found to be a significantly positive effect on organisational performance in the property market. However, confronting the expectations of resource based view (RBV)theorists, the empirical results indicated that firm-specific intangible resources and culture(market orientation, product advantage and resource commitment) were not the prime explanatory factor of variance in business unit performance. Product positioning and sales force expenditures were key predictors of financial performance, and the research findings support partially the PIMS paradigm.

2. Factors Affecting Marketing Strategy

The results lend empirical support that product advantage and resource commitment affect product-market scope decision. On the other words, product-market scope strategy is influenced by the degree of unique and innovative product availability and the degree of resource commitment.

Promotion decision is positively associated with technical change and resource commitment. Therefore, there is a possibility to spend more promotion expenditures and intensity when marketing managers face technical change pressure and have high level of resource commitment.

The distribution intensity is positively influenced by competitive intensity and customer orientation culture. The result suggests that SBUs with high level of customer orientation culture and competitive intensity environment tend to allocate more distribution expenditures for sustaining competitive advantage.

The relative product/price positioning is linked to the degree of product advantage. Interestingly, the result suggests that firms with product advantage tend to engage in high level of relative quality and price compared to major competitors.

High level of strategic alliance expenditures deployment is directly related to market growth and technical change, reflecting the need to expand strategic alliance to access and serve a growing market with technological change environment.

No significant predictor variables were found for sales force strategy and discounted pricing strategy. The empirical results indicate that managers did not use price or sales force expenditure as a competitive weapon under the external and internal environment.

In a high competitive market environment SBU should more carefully scan their prior performance as they attempt to make marketing strategic action, but the research finds that prior performance is found to be weak effect on marketing decision. This could reflect that prior performance did not influence marketing decision in the property market context.

3. Factors Affecting Market Orientation

Market orientation culture is influenced by the substitute of competitors. The research results indicate that SBUs adopted higher level of customer orientation and competitor orientation culture when facing the threat of competitors. In addition, increase in technical change pressure in product development has significant and positive influence on market orientation culture. This influence may be due to the enhancement of customer orientation activities with increase in customer pressure for

new product technical development. The results also indicate that prior good or bad performance did not influence market orientation culture in a SBU.

4. Factors Affecting Resource Commitment

No significant influence of external environment and prior performance on the level of resource commitment. Therefore, the determinant of resource commitment need further empirical evidence.

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Appendix 1

Dear Mr/Ms < Last name >

I invite you to participate in a survey of property marketing organisation (property investment companies, brokerage and advertising) being undertaken by the department of Business and Management at University of Glasgow. The study is being conducted as part of doctoral thesis, and proposes a new model of property marketing that shows how the pressures and forces of business environment impact on the marketing strategy, marketing decision structure, and ultimately marketing performance of your organisation. I believe that the results of the research will provide practical benchmarks that will help your marketing managers to improve their business performance under dynamic environment pressure.

To develop this model we need the views of experienced marketing professionals in your marketing department of headquarters. We would be grateful if you could ask the marketing heads of up to four most important "business units" in your headquarters to complete and return the attached questionnaires. A " business units" may be an organisational unit, a product category or a product group(such as residential or commercial property) that has a separate and independent marketing and profitability responsibility, and in which marketing activities have an important role for business success. The questionnaire is easy and requires about one-hour to complete. I assure you that the information provided will be strictly, confidential, and used only for academic research purpose.

If you have any queries, please write or call: Chih-Wen Wu,

Department of Business and Management

University of Glasgow

THE GILBERT SCOTT (MAIN) BUILDING, WEST QUADRANGLE,
GLASGOW, G12 8QQ

UK

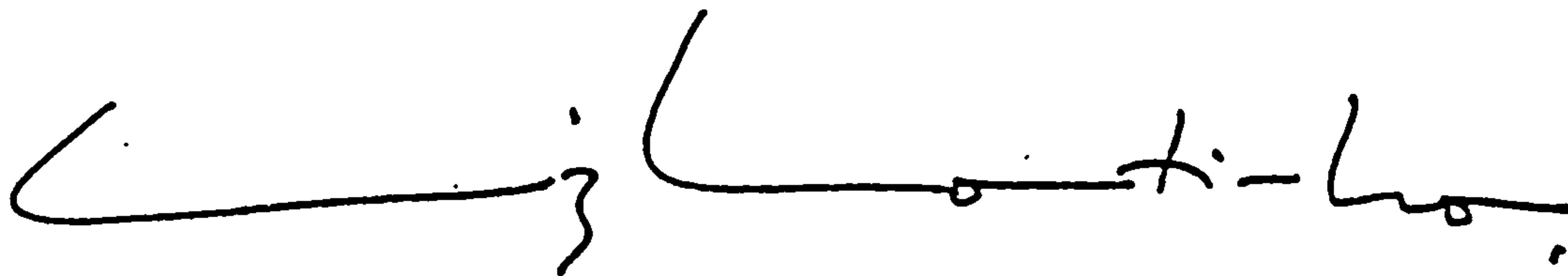
Phone : 002-44-141-3398855 exit : 0273 Fax : 002-44-141-5891698

E-mail: 9807524w@student.gla.ac.uk

The study will not be possible without the generous help of yourself. Since your cooperation is important for completing the study, we will contact you again in a few days. After completing the study you will receive a summary of our research findings in due course. These will provide a wealth of information on "best practice" in property marketing and management.

Thank you for considering our request.

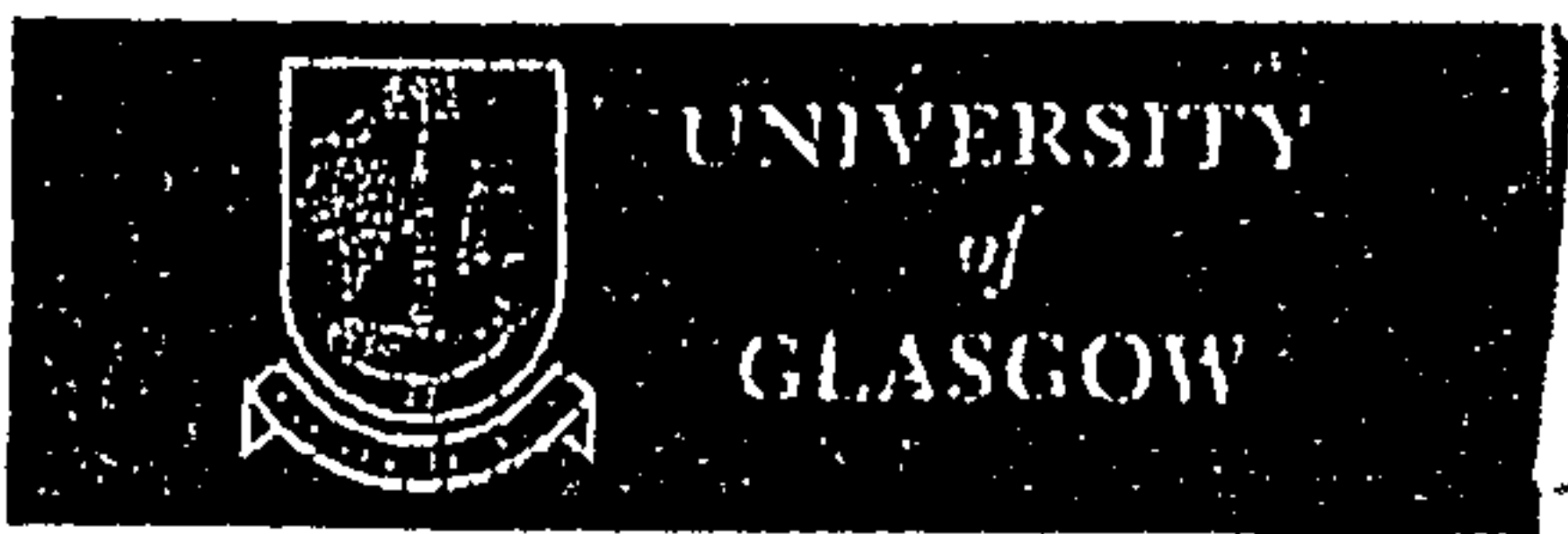
Yours sincerely,

A handwritten signature in black ink, appearing to read "Luiz Moutinho". The signature is fluid and cursive, with a long horizontal stroke at the beginning and a distinct ending flourish.

Professor Luiz Moutinho
Professor of Marketing
Director of Doctoral Programme

A handwritten signature in black ink, appearing to read "Chih-Wen Wu". The signature is cursive and somewhat stylized, with a horizontal line across the middle.

Chih-Wen Wu
Ph.D. Student
Encl . Three sets of questionnaires



Appendix 2

Department of Business and Management

Dear Mr/Mr

I invite you to participate in a survey of property marketing organisation (development, brokerage and advertising) being undertaken by the department of Business and Management at University of Glasgow. The study is being conducted as part of doctoral thesis, and proposes a new dynamic model of property marketing that shows the interaction relationship of marketing environment, strategy and performance. However, only with "real world" information can this be accomplished.

In order for the results to be representative of Taiwan property firms which involve marketing activities, it is important that the questionnaire be completed and returned. I ask that you complete the questionnaire and mail it to me in the enclosed a pre-paid postage envelope. The questionnaire is easy and requires about twenty or thirty minutes to complete. I assure you that the information provided will be strictly, confidential, and used only for academic research purpose.

If you have any queries, please write or call:

Chih-Wen Wu

Department of Business and Management, University of Glasgow, The Gilbert (Main) Building,
West Quadrangle, Glasgow, G12 8QQ,UK

Phone : 002-44-141-3398855 exit : 0273 Fax: 002-44-141-5891698

E-mail: 98076524w@student.gla.ac.uk

Thank you for considering our request.

A handwritten signature in black ink, appearing to read 'Luiz Moutinho'.

Professor Luiz Moutinho,

Professor of Marketing, Director of Doctoral Programme

A handwritten signature in black ink, appearing to read 'Chih-Wen Wu'.

Chih-Wen Wu

Ph.D. Student

Appendix 3

Dear Mr/Ms

This is an academic questionnaire. The research purpose in the survey is to examine the dynamic relationship among marketing environment, strategy and performance in the property market. You may answer the questions frankly as we can assure you total confidentiality of your responses. Surveys are coded only for data tabulation and analysis, so you should be assured of anonymity of responses. Your time and effort involved in completing this lengthy survey is appreciated.

Sincerely,

Dr. Luiz Moutinho, Professor of marketing
Chih-Wen Wu, Ph.D. student

Department of Business and Management, University of Glasgow, UK

Instructions for Completing the Questionnaire

The questionnaire contains three sections. Please answer the questions for the **marketing strategic business unit (SBU)** for which you have the marketing responsibility. **An strategic business unit(SBU) is defined as an organisational unit that has a separate and independent marketing and profitability objective.** In most firms product/market sharing a common set of customers and competitors may be amalgamated into an SBU for the purpose of planning marketing programmes or measuring performance.

Please sure that the questionnaire should be completed by the marketing managers, sales managers, market research or public relations managers of the company. If your firm has offered more than one product category or product group (such as office, retail, industrial, hotel, residential), please complete the questionnaire for one product-market that has the highest annual sales revenue. Sales revenue is limited to sales transaction revenue excluding leasing revenue. If your company is predominantly in manufacture business (development companies), “ product service” in the questionnaire refers to the “ marketing service” provided by your marketing business unit. Please answer the following questions:

For which city are you completing the questionnaire:

Taipei___ Taichung___ Tainan___ Kaohsiung___ Hsinchu___
Taoyuan___ Other___

Products sold by your marketing business unit (You may tick more than one category)

office___ retail___ industrial___ hotel___ residential___
other___

For which product category is you completing the questionnaire in your business unit:

(Please tick one appropriate category)

office___ retail___ industrial___ hotel___ residential___ other___

Marketing Environment

In this section, we are interested in your opinions about marketing environment confronting your SBU in your served market in the Year 2000-2001. Please circle the appropriate number.

External Environment (Factors outside the firms)

	Year	Low	Middle	High				
1. The extent of pressures from customers for new technology	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
2. The extent of speculative buying	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
3. The extent of entry barriers	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	1: Decrease to a extreme extent	4: No change	7: Increase to a extreme extent				
4. The extent of the market growth (the approximately annual growth rate of total sales) in your served market	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
5. The extent of buyer power	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
6. The extent of supplier power	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
7. The number of competitors	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
8. The extent of competitive concentration (the percentage of total sales accounted for by the four competitors with the largest sales)	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	1 : Not at all	4 : To a moderate extent	7: To an extreme extent				
9. The extent of price competition	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
10. The threat of substitutes	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	Slow						Rapid
11. The rate of technological change in product development	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

Internal Environment Forces-Firm specific factors

	Year	1: Does not engage in 7: Highly engage in						
12. The extent of your business unit collect information about customers' need	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
13. The extent of your business unit respond rapidly about competitors' action	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
14. The extent of your business unit measure customer satisfaction	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
15. The extent of top management discusses competitors' strengths and weaknesses	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
16. The extent of salespeople share competitors' information	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
17. The extent of after-sale service	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	1: Decrease to a extreme extent 4: No change 7: Increase to a extreme extent						
18. The relative percentage of innovative product sales(new to market within 3 year introduction such as art, theme, internet residential property and others)	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	Very similar						Unique
19. Degree of uniqueness or similar of product compared to major competitors	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	No Difference	Great Difference					
20. The extent to which there are difference across your property offers compared to major competitors	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	1: Not at all 4: To a moderate extent 7: To an extreme extent						
21. The extent of top management time spent to the strategic marketing planning	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
22. The extent of overall right resource (financial, human, physical and time resources) allocation to strategic marketing planning	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
23. The extent of involvement of staff managers in strategic marketing planning	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

Marketing Strategy

Please indicate the **actual (realised), not intended or important**, perception of marketing strategy in the **Year 2000-2001**. Circle the appropriate number for each element.

(scale: 1 : much less, 2 : somewhat less, 3: about the same, 4: somewhat more, 5: much more)

	Year	Much less			Much more	
1. Relative advertising expenditure compared to main competitors	2000	1	2	3	4	5
	2001	1	2	3	4	5
2. Relative public relations expenditure compared to main competitors	2000	1	2	3	4	5
	2001	1	2	3	4	5

(scale: 1 : much lower, 2 : somewhat lower, 3: about the same, 4: somewhat higher, 5: much higher)

	Year	Much lower			Much higher	
3. Relative price compared to main competitors	2000	1	2	3	4	5
	2001	1	2	3	4	5

(scale: 1 : much superior, 2 : somewhat superior,3: about the same, 4: somewhat inferior, 5: much inferior)

	Year					
4. Relative product quality compared to main competitors	2000	1	2	3	4	5
	2001	1	2	3	4	5

(scale: 1 : much narrower, 2 : somewhat narrower,3: about the same, 4: somewhat narrower, 5: much narrower)

	Year					
5.Relative product sales breadth compared to major competitors	2000	1	2	3	4	5
	2001	1	2	3	4	5

	Year	1: Decrease to a extreme extent 4: No change 7: Increase to a extreme extent						
6. The amount of sales force training including marketing techniques, product information, company mission and property knowledge	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
7. Change in the number of distribution branch-increasing or decreasing the scope of branch operations	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
8. Percentage of total product spent on sales promotion expenses(S.P. programme)	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
9. Percentage of total sales spent on co-marketing alliances for marketing programme(such as with other competitors)	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
10.Percentage of total sales spent on horizontal advertising alliances for marketing programme	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
11.Percentage of total sales spent on vertical advertising alliance for marketing programme	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
12. Percentage of total product sales spent on using web/internet advertising	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
13. Percentage of total product sales on using open house marketing programme	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
14. Change in sales people	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
15. Percentage of total product sales spent on sales force expenses	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	1: None 7: To extreme extent						
16. Degree of discount pricing	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	Vague				Clear		
17. Degree of targeted market segmentation	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

	Year	Narrow			Broad			
		Local	Region		National			
18. Coverage of target market	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

Marketing Performance

Please rate the following marketing performance of your SBU in the Year 2000-2001.

	Year	1: Significant decline 4: No change 7: Significant						
1. Sales value growth rates	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
2. Sales growth rates per employee (Productivity growth rate)	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
3. Return on sales (ROS)	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7
4. Return on investment(ROI)	2000	1	2	3	4	5	6	7
	2001	1	2	3	4	5	6	7

Additional Information

Business Information

1. In which city is your company headquarters located ?

Taipei _____ Taichung _____ Tainan _____ Kaohsiung _____ Hsinchu _____
Taoyuan _____ Other _____

2. What age of your company?

0-2 year _____ 3-5 year _____ 6-10 year _____ 11-15 year _____ 16-20 year _____
21-25 year _____ over 26 year _____

3. Type of property firms (please tick appropriate number)

(1)Property investment company _____
(2)brokerage company _____
(3)advertising company _____

4. Type of local subsidiary(please circle appropriate number)

(1)wholly-owned _____ (2)franchise _____ (3)other _____

5. In your company -

Total number of employees in your company is :

0-40 person _____ 41-80 person _____ 81-120 person _____ 121-160 person _____
161-200 person _____ 201-240 person _____ 241-280 person _____ 281-320 person _____
321-360 person _____ over than 361 person _____

Number of employees in marketing business units is

0-40 person _____ 41-80 person _____ 81-120 person _____ 121-160 person _____
161-200 person _____ 201-240 person _____ 241-280 person _____ 281-320 person _____
321-360 person _____ over than 361 person _____

Personal Information

1. Your job title :

(1)Marketing Planning Manager _____ (2)Market Research Manager _____
(3)Public Relation Manager _____ (4)Sales Manager _____ (5) Other _____

2. Your education background : (Please tick appropriate number)

(1)MBA or postgraduate_____

(2)University graduate_____

(3)Technical college graduate_____

(4)Senior high school graduate_____

3.How many years have you worked in this company(including headquarters and subsidiaries) ?

0-2 year_____ 3-5 year _____ 6-10 year_____ 11-15 year_____ 16-20 year_____

21-25 year_____ 26 year or more_____

4. How many years have you worked in the property marketing business (including other companies' work experience)?

0-2 year_____ 3-5 year _____ 6-10 year_____ 11-15 year_____ 16-20 year_____

21-25 year_____ 26 year or more_____

5. Are you (please circle) Male/ Female

Comments in the questionnaire :

We sincerely thank you for taking the time to complete the questionnaire, and welcome any comments that you may have on this survey.

Please return the completed questionnaire with your comments to

Chih-Wen Wu

Department of Business and Management

University of Glasgow

THE GILBERT SCOTT (MAIN) BUILDING, WEST QUADRANGLE, GLASGOW, G12

8QQ

UK

Phone : 002-44-141-3398855 exit : 0273 Fax : 002-44-141-5891698

E-mail: 9807524w@student.gla.ac.uk



Department of Business and Management

Appendix 4

Dear Mr/Mr

I invite you to participate in a survey of property marketing organisation (development, brokerage and advertising) being undertaken by the department of Business and Management at University of Glasgow. The study is being conducted as part of doctoral thesis, and proposes a new dynamic model of property marketing that shows the interaction relationship of marketing environment, strategy and performance. However, only with "real world" information can this be accomplished.

In order for the results to be representative of Taiwan property firms which involve marketing activities, it is important that the questionnaire be completed and returned. I ask that you complete the questionnaire and mail it to me in the enclosed a pre-paid postage envelope. The questionnaire is easy and requires about twenty or thirty minutes to complete. I assure you that the information provided will be strictly, confidential, and used only for academic research purpose.

If you have any queries, please write or call:

Chih-Wen Wu

Department of Business and Management, University of Glasgow, The Gilbert (Main) Building,
West Quadrangle, Glasgow, G12 8QQ,UK

Phone : 002-44-141-3398855 exit : 0273 Fax: 002-44-141-5891698

E-mail: 98076524w@student.gla.ac.uk

Thank you for considering our request.

A handwritten signature in black ink, appearing to read "Luiz Moutinho".

Professor Luiz Moutinho,

Professor of Marketing, Director of Doctoral Programme

A handwritten signature in black ink, appearing to read "Chih-Wen Wu".

Chih-Wen Wu

Ph.D. Student

Appendix 5

Questionnaire Development Procedures

The appendix provides additional information concerning questionnaire development procedures. Table A-1 consists of the initial pool of items for the marketing environment, strategy and performance dimensions. This list of items was distributed to four professors, ten marketing managers and two journalists for evaluation. After revising the initial questionnaire, revised survey from which was administered to a group of sixteen potential respondents. Table A-2 lists items remaining after elimination of irrelevant items, confusing statements, or items inappropriate to marketing strategy, environment and performance at the business level. This questionnaire was completed by grouping items by using hierarchical analysis to assess the importance of variables. This is the score of responses above 3.00 which was selected in the questionnaire.

Table A-1 Pooling items

Marketing Strategy Group

Relative advertising expenditure
Discount pricing
Relative public relations expenditure
Use of sales promotion programme
Web/Internet advertising
Product sales breadth
Relative product quality
Overall support to distributor
Forward integration
Market research
Backward integration
Relative cost
Relative customer service quality
Co-marketing alliance

Place (distribution)-branch extension
Increase sales force
Horizontal alliance
Vertical alliance
Target market segmentation
Coverage of target market
Open house
Sales force training
Sales force expenses
Database marketing
Relative price

Marketing performance group

Variables
Sales growth
ROI
Objective Achievement
Customer satisfaction
Market share
Organisational learning
Loyalty/ retention
Sales growth per employee(productivity)
ROA
ROS

Marketing Environment group

Variables
The number of competitors
The extent of entry barriers
The extent of speculative buying
The extent of supplier power

The relative percentage of innovative product sales
The extent of pressures from customers for new technology
The extent of competitive concentration
The extent of market growth
The rate of technological change in product development
The extent of your business unit collect information about customers' need
The extent of buyer power
The extent of your business unit respond rapidly about competitors' action
Degree of uniqueness of product
The extent of your business unit measure customer satisfaction
Government regulation
Business functions are integrated in serving the needs of target markets
Reputation
All business functions are responsive to each other's need and request
Business objectives are driven primarily by customer satisfaction
Numbers of planners involving strategic marketing planning
Top managers regularly visit our current and prospective customers
Marketing assets
The extent of price competition
The threat of product substitutes
The extent of top management discusses competitors' strengths and weaknesses
The extent of salespeople share competitors' information
The extent of top management time spent to the strategic marketing planning
The extent of after-sale service
The extent of overall right resource allocation to strategic

marketing planning
The extent of involvement of staff managers in strategic marketing planning
The extent of product differentiation

Table A-2 Hierarchical Analysis

Marketing Strategy Mean Scores in the Expert Survey

Variables	mean score
Relative advertising expenditure	4.69
Discount pricing	4.69
Relative public relations expenditure	4.1875
Use of sales promotion programme	4.1250
Web/Internet advertising	4.0625
Product sales breadth	4.000
Relative product quality	3.8750
Co-marketing alliance	3.6875
Place (distribution)-branch extension	3.6875
Increase sales force	3.6875
Horizontal alliance	3.5625
Vertical alliance	3.3750
Target market segmentation	3.3125
Coverage of target market	3.3125
Open house	3.3125
Sales force training	3.3125
Sales force expenses	3.1875
Relative price	3.0625

Total items were selected : 18 items.

Items below the mean value:

1. Overall support to distributor : 2.56
2. Forward integration : 2.25

- 3. Market research : 2.125
- 4. Backward integration : 2.125
- 5. Relative customer service quality: 2.00
- 6. Low cost: 1.68
- 7. Database marketing : 1.31

Performance Mean Scores in the Expert Panel

Variables	Mean score
Sales growth	4.56
Sales growth per employee(productivity)	4.00
ROI	3.75
ROS	3.68

Total items were selected : 4 items

Items below mean value :

- 1. Objective achievement : 2.62
- 2. Consumer satisfaction : 2.5
- 3. ROA : 2.31
- 4. Market share : 1.875
- 5. Organisation learning : 1.875
- 6. Loyalty/ retention : 1.62

Marketing Environment Mean Scores in the Expert Panel

Variables	Mean score
The number of competitors	4.79
The extent of entry barriers	4.69
The extent of speculative buying	4.1875
The extent of supplier power	4.1250

The relative percentage of innovative product sales	4.0625
The extent of pressures from customers for new technology	4.0625
The extent of competitive concentration	3.8750
The extent of market growth	3.8750
The rate of technological change in product development	3.6875
The extent of your business unit collect information about customers' need	3.6875
The extent of buyer power	3.5625
The extent of your business unit respond rapidly about competitors' action	3.3750
Degree of uniqueness of product	3.3125
The extent of your business unit measure customer satisfaction	3.3125
The extent of price competition	3.3125
The threat of product substitutes	3.3125
The extent of top management discusses competitors' strengths and weaknesses	3.3125
The extent of salespeople share competitors' information	3.3125
The extent of top management time spent to the strategic marketing planning	3.3125
The extent of after-sale service	3.1875
The extent of overall right resource allocation to strategic marketing planning	3.1875
The extent of involvement of staff managers in strategic marketing planning	3.0625
The extent of product differentiation	3.0625

Total items were selected : 23 items.

Items below the mean value:

1. Government regulation : 2.57
2. Business functions are integrated in serving the needs of target markets: 2.57
3. Business objectives are driven primarily by customer satisfaction: 2.31
4. Numbers of planners involving strategic marketing planning: 2.317
5. Reputation : 2.215

6. All business functions are responsive to each other's need and request: 1.62
7. Top managers regularly visit our current and prospective customers : 1.62
8. Marketing assets:1.31

Appendix 6

Descriptive Statistics(Year 2000)

	N	Minimum	Maximum	Mean	Std. Deviation
E1	102	1.00	7.00	5.0588	1.4612
E2	102	1.00	7.00	3.3333	1.6127
E3	102	1.00	7.00	4.5882	1.5943
E4	102	1.00	7.00	4.2157	1.3470
E5	102	2.00	7.00	4.9314	1.2917
E6	102	1.00	7.00	4.0490	1.5567
E7	102	1.00	7.00	4.6667	1.2999
E8	102	1.00	7.00	4.3137	1.2426
E9	102	1.00	7.00	4.4902	.9723
E10	102	1.00	7.00	4.4216	1.1894
E11	102	1.00	7.00	5.0392	1.3925
E12	102	1.00	7.00	4.7549	1.3083
E13	102	1.00	7.00	4.7941	1.3740
E14	102	1.00	7.00	4.9412	1.5468
E15	102	1.00	7.00	4.9608	1.3996
E16	102	1.00	7.00	4.7549	1.2621
E17	102	1.00	7.00	4.7843	1.4599
E18	102	1.00	7.00	4.5588	1.1988
E19	102	1.00	7.00	4.7843	1.4046
E20	102	1.00	7.00	4.4608	1.7330
E21	102	1.00	7.00	4.5784	1.5885
E22	102	1.00	7.00	4.5980	1.5560
E23	102	1.00	7.00	4.8922	1.5280
S1	102	1.00	5.00	3.6275	.9432
S2	102	1.00	5.00	3.6961	1.0224
S3	102	1.00	5.00	3.6176	.9754
S4	102	1.00	5.00	3.4020	1.0461
S5	102	1.00	5.00	3.4608	1.0500
S6	102	2.00	7.00	4.5882	.8004
S7	102	1.00	7.00	4.4804	1.2407
S8	102	2.00	7.00	4.6471	1.1138
S9	102	1.00	7.00	4.6765	1.1359
S10	102	1.00	7.00	4.4804	1.1234
S11	102	1.00	7.00	4.3725	.9741
S12	102	1.00	7.00	4.7353	1.0429
S13	102	1.00	7.00	4.4216	1.1119
S14	102	1.00	7.00	4.4902	1.0412
S15	102	1.00	7.00	4.5196	1.3105
S16	102	1.00	7.00	4.0784	1.4603
S17	102	1.00	7.00	4.6569	1.3011
S18	102	1.00	7.00	4.7353	1.5151
P1	102	1.00	7.00	4.8235	1.4310
P2	102	1.00	7.00	4.7451	1.4190
P3	102	1.00	7.00	4.7451	1.3401
P4	102	1.00	7.00	4.7451	1.3908
Valid N (listwise)	102				

Descriptive Statistics (Year 2001)

	N	Minimum	Maximum	Mean	Std. Deviation
E1	102	1.00	7.00	4.7059	2.0947
E2	102	1.00	7.00	2.8529	1.5945
E3	102	1.00	7.00	4.0784	1.9984
E4	102	1.00	7.00	2.8725	1.5712
E5	102	1.00	7.00	4.4314	1.9011
E6	102	1.00	7.00	2.9706	1.5444
E7	102	1.00	7.00	3.4608	1.7557
E8	102	1.00	7.00	3.5686	1.8267
E9	102	1.00	7.00	3.8333	1.7524
E10	102	1.00	7.00	4.2255	1.6881
E11	102	1.00	7.00	4.5392	1.9684
E12	102	1.00	7.00	4.6275	1.9747
E13	102	1.00	7.00	4.3333	1.7425
E14	102	1.00	7.00	4.5588	1.9629
E15	102	1.00	7.00	4.6667	1.9157
E16	102	1.00	7.00	3.8333	1.8298
E17	102	1.00	7.00	4.5294	2.1234
E18	102	1.00	7.00	3.9804	1.8129
E19	102	1.00	7.00	4.3627	2.0039
E20	102	1.00	7.00	4.5000	2.1422
E21	102	1.00	7.00	4.2843	2.1772
E22	102	1.00	7.00	4.3824	2.0874
E23	102	1.00	7.00	4.3922	2.0303
S1	102	1.00	5.00	3.1667	1.3056
S2	102	1.00	5.00	3.0196	1.2896
S3	102	1.00	5.00	3.2941	1.4664
S4	102	1.00	5.00	3.4216	1.4381
S5	102	1.00	5.00	2.8725	1.3692
S6	102	1.00	7.00	4.3627	1.9232
S7	102	1.00	7.00	3.6863	1.7910
S8	102	1.00	7.00	4.3725	1.8611
S9	102	1.00	7.00	4.2059	1.7707
S10	102	1.00	7.00	4.0000	1.5479
S11	102	1.00	7.00	3.9118	1.5550
S12	102	1.00	7.00	4.5000	1.9075
S13	102	1.00	7.00	4.3137	1.5794
S14	102	1.00	7.00	3.5784	1.7990
S15	102	1.00	7.00	3.8725	1.9835
S16	102	1.00	7.00	4.7255	1.9809
S17	102	1.00	7.00	4.9314	2.0013
S18	102	1.00	7.00	4.7353	2.0963
P1	102	1.00	7.00	3.0784	1.7782
P2	102	1.00	7.00	3.0588	1.6376
P3	102	1.00	7.00	3.0490	1.7765
P4	102	1.00	7.00	2.9804	1.8129
Valid N (listwise)	102				

