



**THE USE OF CORPORATE REPUTATION IN THE  
DEVELOPMENT OF BRAND IMAGE STRATEGY IN THE  
TAIWANESE PHARMACEUTICAL INDUSTRY**

A thesis submitted for the degree of Doctor of Philosophy

by

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## **Dedication**

To my parents for their continual love and support which helped me to achieve my dream.

## **Acknowledgement**

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# Curriculum Vitae

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## Declaration

This is to declare that:

- I am responsible for the work submitted in this thesis.
- This work has been written by me.
- All verbatim extracts have been distinguished and the sources specifically acknowledged.
- During the preparation of this thesis, the concept has been published in some of the conferences. The remaining parts of the thesis have not yet been published.
- This work has not been submitted within a degree programme at this or any other institutions.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Abstract

This doctoral research aims to investigate the reputation building process of companies and to examine the applicability of western-developed theories about the uses of corporate reputation in a non-western context. It is the first study that synthesises three theories (value creation, strategic resources and corporate communication) to examine the strategic consequences of the uses of corporate reputation.

Corporate reputation is an attribute or a set of attributes ascribed to a firm and inferred from the firm's past actions. It is the belief of market participants about a firm's strategic character (Weigelt and Camerer, 1988). Also, corporate reputation is the public's cumulative judgement of a firm over time (Roberts and Dowling, 2002).

The review of theoretical literature indicates the uses of corporate reputation by business organizations can be theorized along six dominant paradigmatic perspectives: *1-public relations; 2-marketing; 3-management, 4-economic; 5-sociological; 6-finance and accounting*. The uses of corporate reputation in these six paradigms are comprehensively discussed. The objective of this study is to establish the use of corporate reputation in the development of brand image strategy. A review of the uses of the concept of corporate reputation is discussed in detail in chapter 2.

The review of the literature also identified a research gap by showing that scarce research has been conducted on how these three main functions (value creation, strategic resources and corporate communication) affect a company's brand positioning strategy. The following research question thus is proposed: How do (Taiwanese pharmaceutical) companies use their corporate reputation to develop a brand image strategy?

The research hypotheses based on three theories (value-based theory, resource-based theory and integrated marketing communication theory) appear in Chapter 3. The research question is constructed theoretically, and then a conceptual model, which begins with three antecedents of corporate reputation and simultaneously illustrates the outcomes of their use, are discussed.

The construct of the uses of corporate reputation has three dimensions: value creation, strategic resources and corporate communication. Each of these three dimensions includes several items. The items were proposed based on the previous researchers' summaries and the qualitative interview. The researcher will then depict the proposed research conceptual framework and a number of hypotheses that will be further investigated and tested.

Then the quantitative study was completed by providing the data analysis and the results were explained. A multi-stage procedure was involved in this research. First, data examination and screening to prepare for subsequent quantitative analyses and then the descriptive statistics were presented. Second, a reliability test was performed on measurement scales to ensure that they achieve an acceptable level of reliability for further analysis. The resulting solutions were then re-assessed using confirmatory factor analysis. Finally, PLS (Partial Least Squares) was used to test the hypothesized relationships between the research constructs as postulated in the conceptual model, and to assess the overall goodness-of-fit between the proposed model and the collected data set.

The researcher then discusses the validation of the measurement model and the research findings. The findings are then further discussed in terms of the contribution to marketing theory and relevance to marketing managers. Then the items of adapted scales were subjected to several rounds of adjustments and were finally found to possess acceptable measurement properties. Reliability and construct validity tests indicated that all scales satisfied widely accepted criteria such as the minimum reliability of 0.7. The results of scale purification will be discussed. And an evaluation of the research hypotheses and their significance are summarized, the findings of all hypotheses testing will be reviewed and compared with previous research.

According to the research findings, the hypotheses that value creation, as one dimension of corporate reputation, has a positive impact on brand segmentation, brand differentiation and brand positioning are all accepted. The hypotheses that strategic resource, as one dimension of corporate reputation, has a positive impact on brand segmentation and brand differentiation are rejected. However, the hypothesis that strategic resource, as one dimension of corporate reputation, has a positive impact on

brand positioning is accepted. The hypotheses that corporate communication, as one dimension of corporate reputation, has a positive impact on brand segmentation and brand differentiation are both accepted. The hypothesis that corporate communication, as one dimension of corporate reputation, has a positive impact on brand positioning is partially supported. Finally, the hypothesis that the (see in Table 5.18) moderating effect of price policy on corporate reputation has a positive impact on brand image strategy is partially but negatively supported.

This thesis makes a significant contribution to the study of corporate reputation of firms in the Taiwanese pharmaceutical industry from the robustness of the qualitative and quantitative data collection.



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# **CHAPTER ONE: INTRODUCTION**

## **1.1 Introduction**

A well-developed corporate reputation can be used as a resource to develop a firm's strategic value (Weigelt and Camerer, 1988; Roberts and Dowling, 2002). It can be used as a trait or a signal to forecast the potential behaviour of a firm (Kreps and Wilson, 1982; Shapiro, 1989) or to signify an organisation's perceived capacity to meet their stakeholders' expectations (Waddock, 2000), allowing a stakeholder to evaluate how key resource providers interpret a company's initiatives and, from its past actions, to assess its ability to deliver value outcomes (Fombrun, 2002; Day, 1994). Therefore, an understanding of how to effectively signify a firm's corporate reputation to its consumers is needed. However, very few studies of corporate reputation are available.

This doctoral research is primarily concerned with the uses of corporate reputation, particularly developing a brand image strategy from it, within the pharmaceutical industry in Taiwan. The research employs three theories – value creation, strategic resources and corporate communication – to study the effects of the uses of corporate reputation as well as relevant underlining mechanisms. This chapter explains the background of the research, provides a statement of the problem, identifies research objectives and questions, offers a rationale for the context, indicates expected research contributions, clarifies the proposed methodology, states the limitations of the research and outlines the structure of the thesis.

## **1.2 The research background**

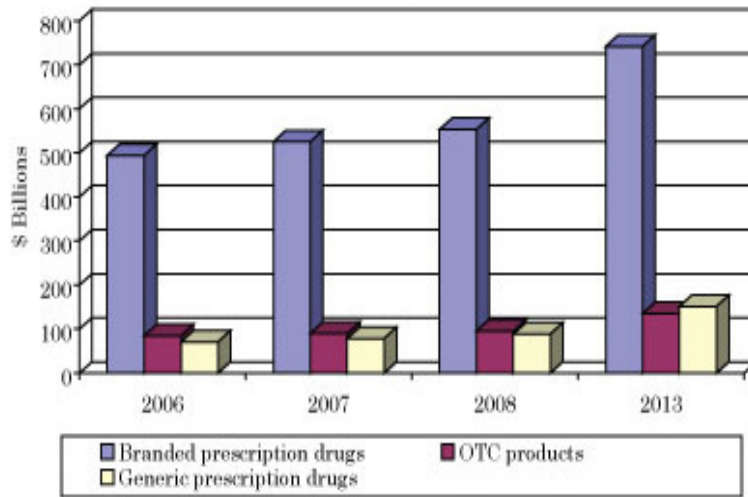
In order to have a clearer understanding about the research background, this section will first present the challenges facing pharmaceutical companies in Taiwan regarding the reputation a company can create in order to establish its corporate brand image, which



will influence its perception by doctors when they prescribe medicines to their patients. Therefore, in order to have a better understanding of the brand strategy created by the brand manager, it is essential to find out the importance and the uses of corporate reputation. In the last part of the research background, the importance of a firm's reputation for companies in the pharmaceutical industry in general will be introduced.

According to a report by BCC research (market research reports and technical publications provider) (Natale, 2008), “the global market for pharmaceuticals increased from \$693.7 billion in 2007 to an estimated \$737.6 billion by the end of 2008. It should reach over \$1 trillion by 2013, a compound annual growth rate (CAGR) of 6.9%. The generic prescription drugs segment will experience the highest growth rate over the study period. Worth an estimated \$88.7 billion in 2008, it will reach \$151.4 billion by the end of 2013, a CAGR of 11.3%.” (Figure 1.1)

Figure 1.1: Worldwide market for pharmaceutical products, 2006–2013 (US\$ Billions)



Source: BCC Research (Natale, 2008:1)

According to another report from BCC (Evers, 2009), “The global market for generic drugs was worth \$81 billion in 2008, a figure that is expected to reach \$84 billion in 2009. In 2014, the market is expected to amount to \$168.7 billion, for a compound annual growth rate (CAGR) of 15% in the 5-year period. Sales of U.S. generic drugs currently dominate the market, estimated at \$33 billion in 2009 and projected to increase at a CAGR of 10.4% to \$54 billion in 2014.”

Based on the numbers estimated from the market report, therefore, we can forecast that there is a huge market space for generic medicine growth, basically in the US market. There are five reasons for this: (1) medical insurance requiring decreasing costs, (2) patent expirations of popular used medicines, (3) people living longer, (4) support from government policy and (5) prescription medicine changing to non-prescription medicines.

### **1.2.1 Challenges for the pharmaceutical industry in Taiwan**

Since there are only 23 million people in Taiwan, also, generic drug manufacturers are too many and too small compared to their counterparts in India and China. “The national health insurance system, which while doing immense good for improving the health of the general population, has budget provisions which discourage the use – and therefore the development – of newer, more costly drugs” (Silver, 2006). The new issued drug price policy caused the outlook of the whole industry to become bleak. When faced with the facts that Taiwanese pharmaceutical companies are master in manufacturing, no big name research-based drug or drug maker has emerged to date. So Taiwan’s pharmaceutical sector is facing a considerable challenge right now. Also, according to Silver (2006), looking in further, “exports make up only three percent of the total production value of the local drug manufacturing industry (2004 figures), which either means the industry has tremendous potential, or it’s a brutal reflection of the realities of the international marketplace.”

#### **1.2.1.1 Generic pharmaceuticals**

A very large number of generic in drug makers then arose in the Taiwan pharmaceutical industry under the circumstances stated above – many hundreds at last count. Although many of these companies are too small to compete with giant overseas generics companies, they are being kept alive by their close relationships with local hospitals, in turn supported by the policies of the Bureau of National Health Insurance (BNHI).

There is a special market condition in Taiwan, according to Silver (2006:1),

*“representatives of overseas business groups in Taiwan such as the American Chamber of Commerce and the European Chamber of Commerce have long claimed that while more expensive drugs - particularly cancer drugs - produced by US, European and Japanese firms are not being paid for by the BNHI in Taiwan, hospital purchasing departments were buying cheaper drugs and being paid back by BNHI for more than what they paid. This situation leads to over-prescribing. Hence drug prescribing is becoming a profit centre for a hospital. This gradually led to prescription decisions being based on profit instead of efficacy and value of the drug to the patient. It’s been estimated that over US\$600 million is lost annually in BNHI funds due to this payment reimbursement mechanism. Just where these funds get lost may explain how many small generics companies are still keeping their doors open, and why many of Taiwan’s big hospitals are doing very well for themselves.”*

Nowadays, there is a trend for Taiwanese generic manufacturers to obtain the US FDA’s (Food and Drug Administration) GMP (good manufacturing practice) certification, cGMP (current good manufacturing practice) certification, or the European ISO (International Organization for Standardization) certification and PIC (Pharmaceutical Inspection Co-operation Scheme) certification for their factories, because currently this industry is facing a big challenge. There are some government policies that may affect the industry. For example, pharmaceutical prices are now under the control of the National Health Institute. However, since Taiwan has proven expertise in engineering and manufacturing, generics is where it should be able to compete – if not on price then on quality, flexibility or where more precise or complicated processes are required to make the end product. Therefore, they all hope to market their products on the international market.

Recently, the government threw a lifeline to the generics manufacturing sector by demanding self-sufficiency in certain drug supplies, such as vaccines and medical consumables. The policy was set from lessons learned during the 2003 SARS crisis when vital medical supplies ran out, and the policy reinforced by the current H5N1 scare resulting in worldwide shortage of the antiviral Tamiflu. The increase in

competition in the pharmaceutical market has been seen as the key driver of pharmaceutical industry marketisation across the world<sup>1</sup>.

### **1.2.1.2 Research-based pharmaceutical companies**

While not exactly in the same league as Pfizer or GSK, there are a small number of research-based pharmaceutical companies producing innovative drugs, or at least modified existing drugs for new uses, such as TTY Biopharm, which is a publicly listed company making oncology drugs with improved disease-targeting behaviour. TTY Biopharm does its own research, as well as its own manufacturing. And moreover, it also has developed its own network of distributors islandwide.

Other drug discovery companies also have good prospects in therapeutics for Asian-prevalent diseases such as hepatitis. While some will look towards the traditional

*“licensing-to-Big-Pharma” model for their big break, others will try to go it alone and research, manufacture and market their own products as TTY has done. There are several companies in this area, such as TaiGen Biotechnology and PharmaEssentia. TaiGen is previously research leader for Oncology and Virology for over 10 years at Hoffmann-La Roche, USA. TaiGen focuses on oncology, chronic inflammation and viral infection therapeutics and received early financing from MPM Capital to the extent of US\$37 million. The company is also in research collaboration with TTY. PharmaEssentia is a drug discovery company with promising liver disease drugs in the pipeline.”* (Silver, 2006:1)

However, as we all agree, funding is vital and unavoidable for the long drug development process. Unlike drug manufacturers in other countries, Taiwanese

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<sup>1</sup> Including: North America (Allen and Shen, 1999; Dill, 2003; Kwong, 2000; Young, 2002); Europe (Middleton, 1996; Williams, 1997; Gibbs, 2001; Taylor, 2003; Binsardi and Ekwulugo, 2003; Jongbloed, 2003; Mora, 1997; Czarniawska and Genell, 2002); Africa (Ivy, 2001; Maringe and Foskett, 2002; Maringe, 2004); Asia (Arimoto, 1997; Oplatka, 2002; Gray et al., 2003; Williams et al., 1997; Mok, 1999, 2000); Australia (Baldwin and James, 2000); New Zealand (Ford et al., 1999); Russia (Hare and Lugachev, 1999).

companies have not tended to list their companies on foreign stock exchanges (Silver, 2006:1).

*“Whilst Taiwan has its own vibrant venture capital industry, local funds are not yet flowing into the life sciences on their own accord. However, with its continued efforts to fund and promote the industry’s development, and to source and set up international collaboration opportunities, the government remains a force behind much of the continued growth of Taiwan’s life sciences industries, including the pharmaceutical sector. When measured together with the prospects for the island’s burgeoning drug discovery industry, and considering the boost the recent government emphasis on drug self sufficiency has had on Taiwan’s bio-product manufacturing industry, it all adds up to a future optimistic for the industry than expected it to be.”*

On the other hand, product price regulation is an issue for the Taiwan pharmaceutical industry. The idea of drawing links within modes of consumer perceptions of price, advertising, product quality and values has been long appreciated by marketing scholars who are interested in understanding the significance of a firm’s reputation (Milgrom and Roberts, 1986; Zeithaml, 1988). In the pharmaceutical industry, branding strategies such as advertising and academic reports mainly influence a doctor’s perception of a product (or brand). However, a basic for understanding of a company also helps the customer make a decision. The information a company sends about itself has an influential and unexpected impact on consumer perception. The signals sent by a firm through its reputation, advertisements and product price are usually interpreted differently by their customers. Therefore, there is a need to understand the link of how do managers use their corporate reputation to establish a firm’s brand image strategy (Schultz et al., 2000; Bickerton, 2000).

The signal a product’s price gives to customers regarding their perception of a product’s quality has been noted by marketing scholars (Milgrom and Roberts, 1986; Fombrun and Shanley, 1990; Kalita et al., 2004). Previous scholars asserted that a warranty is positively related to a firm’s reputation (Balachander, 2001). Previous scholars have asserted that a warranty is positively related to a firm’s reputation (Balachander, 2001). Previous literature (see Chapter 2) suggests that the firm organises its reputation according to three dimensions: (1) the way the firm organizes its strategic resources

(strategic resources), (2) the way the firm communicates with its customers (corporate communication) and (3) through the type of value it offers to its customers (value creation). This information enables brand managers to operate a better strategy for their products' brand image (mainly about brand segmentation and positioning their products).

Because each firm differs in how it becomes established and the methods it uses to survive, establishing the factors of the study's focus is important. For example, automobile companies try to build their own style or image to differentiate themselves from their competitors (Hsieh, 2002), though they tend to consider the same safety issues. Pharmaceutical companies try to achieve international standard requirements and build reputations to survive (Nakra, 2000; Bennett and Gabriel, 2001; Rose and Thomsen, 2004). Without a well-crafted or sound reputation, it is difficult for pharmaceutical companies to sustain their customers' trust, and thereby they lose ground against competitors.

For the above reason, pharmaceuticals are encouraged to develop a good reputation for their quality of product and services (Fombrun and Shanley, 1990; Berndt et al., 1997), for innovativeness (Prentis et al., 1988; Fombrun and Shanley, 1990; Valle and Gambardella, 1993; Achilladelis and Antonakis, 2001), for honest communication and for environmental responsibilities (Fombrun and Shanley, 1990; Byrne and Kavanagh, 1996). In turn, these factors can also be converted subconsciously into the brand image of the products belonging to the company (Kim et al., 1989; Panigyrakis and Veloutsou, 1999). Because a firm's corporate reputation tends to highly influence the initiation of a brand strategy decisions and brand scene-setting in pharmaceutical companies (Keller and Aaker, 1998; Nakra, 2000), the literature regarding this topic will be reviewed in the following paragraphs.

First, in Taiwan, 'biotechnology' is defined as including the pharmaceutical, medical device and modern biotech sectors. Besides, the API (Active Pharmaceutical Ingredient) manufacturing model fits well to Taiwan's seemingly natural propensity to excel in engineering and precision manufacturing. However, nowadays, Taiwanese pharmaceutical companies are trying to transform its business model from original

equipment manufacturer (OEM) model to knowledge-creation model in producing pharmaceutical ingredients on contract for some of the international brand and non-brand drug companies seen in the modern biotech environment of gene identification and drug discovery. Pharmaceuticals in Taiwan therefore are heading to a way towards to the innovation of the industry (Berndt et al., 1996; Lichtenberg, 1998) or focus on generic knowledge strategies (Bierly and Chakrabarti, 1996).

Second, there is an encouraging use of generic medicines in several countries in recent years (King and Kanavos, 2002). However, even the same constituents, produced by different manufacturers, may contain different quality ingredients or different excipients (an inactive substance used as a carrier for the active ingredients of a medication) to work with the main constituents to produce medicines that perform differently (or are perceived to perform differently). These differences are related to a firm's knowledge, R&D and also its producing experience (Vendelo, 1998). Moreover, a firm's reputation has an impact on the brand message, and might even make or break the success of a brand depending on its marketing capability (Ling and Jaw, 2006). Therefore, in this vein, generic medicine producers need to build their own brand on their corporate reputation for marketing purposes.

Third, in pharmaceutical companies, apart from the research-and-development (R&D) cost, the marketing cost usually occupies a significant portion of the budget (Bulger, 1999). Moreover, a pharmaceutical company should have the ability to hire and retain good and experienced sales representatives (Ziegler et al., 1995). Therefore, the marketing campaign or marketing strategy is another key focus for the marketing manager.

In pharmaceuticals, good corporate reputation leads to good dealings with customers – from being able to raise a price to a deal solidifying the customer's confidence in a purchase (Davies, 2003; Keh and Xie, 2008). It has been discussed frequently that corporate reputation is the key to customer satisfaction (Gray and Balmer, 1998; Moss, 2007). A good marketing campaign which enables good sales probably has to build a brand especially upon the firm's experience and knowledge (Bierly and Chakrabarti, 1996; Yeoh and Roth, 1999; Powell, 2000; Nerkar and Roberts, 2004; Hung et al.,

2005). In addition, according to its style of leadership, a firm uses different strategies to market its products (Ogbonna and Harris, 2000; Harris and Ogbonna, 2001; Cable and Judge, 2003), such as more product-oriented or customer-oriented strategies.

Based on the arguments and market situations or environment stated above, pharmaceuticals are inspired and encouraged to build their corporate reputation and apply it to the setting of its brand strategy. A firm's corporate reputation can be used to communicate its benefit to its customers or to the public, to enhance value for its customer, and has a strategic role that serves as an intangible asset for a firm (Fombrun, 1996; Roberts and Dowling, 2002). Once brand managers create a brand image which is coherent with a firm's image or reputation, the firm in turn can create a more flexible strategy regarding image for its products.

### **1.2.2 Pharmaceuticals and their uses of corporate reputation**

For pharmaceuticals, it is vital to develop an organisation's brand from its intangible assets (such as corporate reputation). Evidence suggests that organisations with a consistent corporate strategy and can convey it consistently into its brand strategy are likely to perform better than those organisations with a less clear and inconsistent ethos (Schendel and Patton, 1978; Wind and Robertson, 1983; Varadarajan, 1992; Hatch and Schultz, 2001; Rao et al., 2004). Nowadays, the pharmaceutical industry is becoming increasingly complex and subject to a number of critical influences. This suggests that participant organisations need to actively consider how they are perceived by key stakeholders (Fill and Dimopoulou, 1999). Recently, studies shows that customers focus on a firm's corporate reputation by conveying and committing to a coherent brand message perception, especially for pharmaceutical companies (Wiedmann, 2002). Therefore, in order to deliver a clearer signal to its customers, corporate strategy in pharmaceuticals must focus on a thorough understanding of the brand perception, not only from the brand itself but also from the corporate perspective (Hoffman, 2006; Brammer and Pavelin, 2004). Which means to look at a brand it is suggested to incorporate a firm's corporate background and the corporate reputation in general.



As explained above, in a pharmaceutical context, in order to build up a firm's reputation and its brand image, brand managers play an important role – the pharmaceutical brand is built to gain trust from professional people such as physicians and doctors (Panigyrakis and Veloutsou, 1999; Fugh-Berman and Ahari, 2007). The brand strategy decision makers are highly influential in the representation of a pharmaceutical company or its brand to its customers (for example, as a result of targeting a brand as having upper-class customers, being well-reputed within the target and market and having top quality products) (Easingwood and Koustelos, 2000; Smith and Awopetu, 2007; Robin, 2007). Brand orientation means that the formulation of company strategy is based on brands (Urde, 1994).

There is a novel view from a brand practitioner, John Nosta, the vice president and creative director at Catalyst Communications, saying that: brand-makers seek out mind share while marketers seek out market share. "I call it (the brand) the personification of a product. A brand is what sticks to the roof of your customer's brain. It's memorable. And it's what differentiates a product in the marketplace.... Branding is an exercise in perception." (Laitin, 2000, p. 5) The brand "signature", or "personality", is based on sound strategic thinking. Brand positioning is an exercise in customer perception. It decides the way you want the audience to perceive your product (Sujan and Bettman, 1989), and it is the first step in successful branding (Park et al., 1986; Carpenter, 1989). For example, a reputation for innovation enhances credibility among customers. In particular, experimental studies have shown that innovation has made the acceptance of new product offerings more likely. It also helps a firm to gain reputation if it makes the customers think that it shows concerns for the customer (Aaker and Joachimsthaler, 2004).

For the reasons above, it is crucial to take a firm's reputation as a basis and set a brand strategy based on its current reputation in order for it to remain a corporate brand strategy consistent with the corporate image or reputation. However, in order to ensure the brand strategy is in alignment with the corporate strategy, the branding strategy creation process must address such fundamental questions as "who are we targeting?" and "what is our core value?" (Belanger et al., 2002). Therefore, in order to encourage

a coherent brand strategy, managers should have the same perceptions of the values that are embedded in the corporation (Hatch and Schultz, 2003).

### **1.3 Statement of the problem**

Corporate reputation is about a firm's quality management of its corporate name. A firm's corporate reputation involves several aspects of a firm: its long-term investment value, its financial soundness, whether it makes a wise use of corporate assets, its quality of management, products and services, its ability to innovate, its ability to attract develop or keep talented people, its communication and environment responsibilities (Fombrun and Shanley, 1990; Fryxell and Wang, 1994; Caruana, 1997; Hammond and Slocum, 1996; Barnett et al., 2006). As discussed above, in a pharmaceutical context, corporate reputation is likely to play the crucial role in the branding process. However, very few studies on corporate branding are available. Although, there are studies on corporate reputation and how a pharmaceutical company builds or extends its corporate brand (e.g. Keller and Aaker, 1998; Argenti et al., 2003), the studies are not specific on how firms use their corporate reputation to give more strategic insights to its brand. Dolphin's (2004) study seems to be the most relevant study, giving a full review of how firms put the reputation idea into the branding process. However, the concept of the uses of corporate reputation in pharmaceuticals still remains unclear as most of the studies regarding this issue were conducted solely from customer perspectives.

One of the most important concerns is the fact that a firm's reputation in pharmaceuticals is based on the strength in the organisation. This factor raises the question of the applicability of the uses of corporate reputation in the pharmaceutical industry context. There is the need for research that examines the effects of uses of corporate reputation at the firm level. A firm can manage the impression it creates or its reputation by engaging in corporate social responsibility (Hooghiemstra, 2000; Bronn and Vrioni, 2001). The literature suggests three kinds of the uses offer corporate reputation: value creation, strategic resources and corporate communication. Therefore, strategy variables are included within a proposed conceptual model in order to examine the underlying mechanisms of the link between the brand image strategy and its effect

from marketing and communication perspectives. In addition, based on a review of the literature, most studies on the uses of corporate reputation in pharmaceuticals have been conducted in Western countries, such as the USA, the UK and Germany, thus, limiting the generalisability of any theory. In order to bridge this gap, Taiwan, as a country in far eastern Asia, has therefore been selected as the setting of this study.

## **1.4 Research objectives**

Given the importance of a firm's reputation in pharmaceuticals, it is worthwhile investigating the concept further in order to harmonise with existing research. This doctoral study has two main research objectives. First, the research attempts to develop a model to explain the effects of aspects of the uses of corporate reputation in pharmaceuticals on the brand image strategy of brand managers. Second, the research intends to empirically test the model in a non-Western setting, which will help the researcher to examine the external validity of Western-developed theories (i.e. the applicability of these theories in other contexts). This includes the assessment of the dimensionality and operationalisation of constructs, and the assessment of certain assumptions associated with findings reported in the existing literature (e.g. the connection between the uses of a firm's reputation and its brand image strategy).

In particular, this study intends to answer the following research question: from the manager perspective, what are the effects of the uses of corporate reputation on the brand image strategy? This question can be divided into two sub-research questions. First, it is essential to find out what the previous studies have regarded as the main uses of a firm's corporate reputation. Therefore, the first question will be: *what are the main uses of corporate reputation?* After this, it is important to find out the link between the uses of a firm's corporate reputation and brand image strategies. Therefore, a second question is proposed as: *can a firm's corporate reputation have an impact on its brand image strategies?* Answers to the previous two questions will be sought through examining the previous literature regarding the uses of corporate reputation and the relationship between each construct. Moreover, the above questions are mainly based on the construction of the theoretical literature. These questions try to find out the

relationships between the dimensions of the uses of corporate reputation and brand image strategy.

By achieving these research objectives, the researcher expects that this study will advance current knowledge about building a strategy for firms using their corporate reputation to create or match up with their brand strategy and offer practical insights to managers in practice. Therefore, a set of questions are asked in this research as research hypotheses (see Table 1.1) in order to find out the answer for the research.

Table 1.1: List of research hypotheses

<b>H1</b>	Value creation as one dimension of the uses of corporate reputation has a positive impact on a firm's brand segmentation strategy.
<b>H2</b>	Value creation as one dimension of the uses of corporate reputation has a positive impact on a firm's brand differentiation strategy.
<b>H3</b>	Value creation as one dimension of the uses of corporate reputation has a positive impact on a firm's brand positioning strategy.
<b>H4</b>	Strategic resource as one dimension of the uses of corporate reputation has a positive impact on a firm's brand segmentation strategy.
<b>H5</b>	Strategic resource as one dimension of the uses of corporate reputation has a positive impact on a firm's brand differentiation strategy.
<b>H6</b>	Strategic resource as one dimension of the uses of corporate reputation has a positive impact on a firm's brand positioning strategy.
<b>H7</b>	Corporate communication as one dimension of the uses of corporate reputation has a positive impact on a firm's brand segmentation strategy.
<b>H8</b>	Corporate communication as one dimension of the uses of corporate reputation has a positive impact on a firm's brand differentiation strategy.
<b>H9</b>	Corporate communication as one dimension of the uses of corporate reputation has a positive impact on a firm's brand positioning strategy.

Source: Developed by the author

## 1.5 Rationale for the research

The purpose of this research stems from the observation that pharmaceutical companies require a good reputation to survive. As Alsop (2004) argues, the CEO's own reputation affects corporate reputation. However, reputation management is an ongoing job, and therefore companies should allocate certain managers or departments as primary guardians.

Duncan Burke, former vice president of corporate image and reputation at GlaxoSmithKline, one of the world's largest pharmaceutical companies, said: "I'm trying to get people to think about reputation systematically, to remind them to take it seriously all the time." "Big pharmaceutical companies are seen as pariahs right now because of the issue of access to medicine at a reasonable price," Mr. Burke continued. "So it's especially important that there's one person in my position to reflect on how the world thinks of Glaxo and how we want the world to see us." Moreover, according to Alsop (2004, p. 23):

*"If they ever hope to maximize the value of their reputations, companies must make reputation management a fundamental part of the corporate culture and value system. Companies must spread the message of reputation management throughout the organization and make employees cognizant of how each and every one of them affects reputation on a daily basis. Reputation must be central to the corporate identity, not merely clever image advertising and manipulative public-relations ploys."*

Moreover, a pharmaceutical company's reputation has a large impact on its brand image. Therefore, this research aims to investigate how pharmaceutical managers make brand decisions based on corporate reputation. Prior research has addressed the issues of corporate communication and corporate branding in the pharmaceutical industry. A pharmaceutical company that develops innovative products based on a sound scientific approach usually enjoys a high reputation while also producing generic products (Dhir and Vinen, 2005; Krishna, 2006). The pharmaceutical industry faces considerable pressure from ethical groups. Workplace health and safety concerns are stressed more highly in the pharmaceutical industry than in any other industry (Brammer and Millington, 2005), and this industry has significant social externalities (Brammer and

Millington, 2005). That is, intangible assets, such as corporate reputation, tend to be more important for pharmaceutical companies than for other types of companies.

Prior research has argued that in addition to a pharmaceutical firm's corporate reputation, corporate branding and communication must be properly managed. For example, Moss (2001) and Hall and Jones (2007) found that pharmaceutical companies engage in corporate branding issues and focus their branding activities on products and product attributes. Moreover, to manage corporate communications efficiently, Dolphin and Ying (2000) suggested that a pharmaceutical company must understand the almost unlimited potential of branding issues and thus ensure consistency of its communication message to a wide range of stakeholders.

Elaborating on the strategic communications of GlaxoSmithKline, former CEO Jean-Pierre Garnier said: "Corporate communications are separate functions that work very closely together. But we still have one story here—one basic message." He further elaborated, "At the end of the day, the communications aren't owned by the communication department. You have to have good executives who can and will communicate" (Argenti et al., 2005, p. 88).

Thus, the current research investigates the relationship between corporate reputation and communication and branding issues in the pharmaceutical industry and examines how the personnel involved manage these in a practical way. In addition, few studies have theoretically investigated how firms use their corporate reputation to enhance their brand image strategy in terms of brand segmentation, differentiation and positioning. Therefore, this research explores how firms can use their corporate reputation to enhance their brand image strategy.

## **1.6 Rationale for the context**

In accordance with the research objective, the researcher intends to empirically test the model in a non-Western setting in order to examine the external validity of Western-

developed theories.. In order to test the external validity of Western-developed theories, several researchers (e.g. Boyacigiller and Adler, 1991; Peng et al., 1991) recommend collecting data in a non-Western country. Therefore, Taiwan, a country in South-east Asia, has been selected as the setting of this study.

Taiwan has been selected as the setting of this study because its oriental culture (which is mainly followed by Chinese culture) is clearly different from Western culture (Hofstede, 1984). Taiwan can represent non-Western countries<sup>2</sup> for several reasons. For example, Taiwan is different from many Western countries e.g., USA, UK, and other developed countries with regard to the distribution of power. That is, Taiwan has higher inequality between people and organisations than those developed countries (Hofstede, 1984). “Taiwan is a model for newly emerging economies. Since WWII, high levels of economic development have been achieved, due largely to a national policy of promoting manufacturing in the information technology sector.” (Filatotchev et al., 2005) In addition, compared to those developed countries, Taiwanese have high uncertainly avoidance, implying that Taiwanese people have a higher tolerance for ambiguity, and less emotional resistance to change, etc. Moreover, Taiwan has a very low score for individualism when compared to Western countries (Hofstede, 1984). In addition, the values and norms of Taiwanese employees have a strong root in Buddhism and Taoism, which is different from those in Western countries which are mainly Christian – Catholic or Protestant (Hofstede, 1984).

The Taiwanese generic medicine market is getting stronger and more solid. In the 1990s, Taiwan pharmaceutical companies were consistently among the top ten-ranked in the US market. In the past two years, many companies have been turning to Taiwan to seek new technologies and to reduce costs. This indicates that Taiwan’s own pharmaceutical industry technology has greatly improved and is reaching international standards (Swinbanks and Cyranoski, 2000). This trend in turn encourages competition in the Taiwanese pharmaceutical industry (Agoramoorthy and Hsu, 2007). Companies in Taiwan, especially in the pharmaceutical industry therefore increasingly recognise the importance of the uses of a firm’s reputation.

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<sup>2</sup> More details about the research setting are provided in Chapter 4.

Moreover, due to the new corporate management trend in Taiwan during the last twenty years (Young, 1996; Wu, 2002; Solomon et al., 2003; Lien et al., 2005; Filatotchev et al., 2005; 2008), companies have made efforts to build their corporate reputation in order to attract new customers or retain old ones. Companies increasingly recognise the importance of a firm's reputation as judged by its financial or social performance and its uses when developing their own corporate brands. They create various strategies for marketing and promoting their corporate brands, providing a good opportunity for this research to examine the effects of these communications on the pharmaceutical manager's brand strategy decisions. As this research is conducted in an attempt to investigate the effects of brand strategy with brand managers, as well as its underlining mechanism, the research will therefore have significant managerial implications, especially for pharmaceuticals in Taiwan, as well as other developing countries in Asia.

## **1.7 Expected research contributions**

Two kinds of contributions are expected from this study: theoretical and managerial contributions. Each is explained in the following section.

### **1.7.1 Theoretical contributions**

This research is expected to make several theoretical contributions. First of all, the findings will advance current knowledge by adding alternative insights to the uses of corporate reputation. It will also add views on the uses of corporate reputation to possible outcomes of brand image strategy. Additionally, relevant mechanisms underlying the relationships between the uses of corporate reputation and the design of brand image strategy will be investigated in a non-Western context. That is, this research will illustrate how each dimension of the use of corporate reputation affects the design of brand image strategy in the pharmaceutical industry in Taiwan.

In addition, the research will provide further understanding about the dimensionality and operationalisation of the studied concepts (the uses of corporate reputation, brand image strategy) from the perspective of pharmaceutical brand managers.



### **1.7.2 Managerial contributions**

As discussed earlier, the uses of corporate reputation in pharmaceuticals is based on imported knowledge from either the theoretical literature or the business sector. Thus, it raises the question of the applicability of the uses of the corporate reputation concept in the context of pharmaceuticals. By recognising the effectiveness of the uses of corporate reputation in pharmaceuticals in the setting of a firm's brand image strategy from the brand manager's perspective, the pharmaceutical management team can devise their branding and marketing plans more successfully. That is, in order to create an effective brand image strategy, the manager can concentrate on particular aspects of ways to build the firm's reputation (e.g. value creation, strategic resources and corporate communication) which are seen by the brand manager as effective tools for creating brand image strategy.

In addition, by comparing which uses of corporate reputation dimensions (value creation, strategic resources and corporate communication) are more effective for influencing brand image strategy, the findings can be used by the managers as a guideline for allocating their resources effectively. Therefore, the findings are likely to be a useful tool for brand managers of pharmaceutical companies to apply in situations where they need to make brand strategy decisions.

### **1.8 Proposed methodology**

The researcher plans to employ a mixed-methods approach (Tashakkori and Teddlie, 2003), with a dominant quantitative and qualitative component involving semi-structured interviews and a pilot study to collect data for the development of measurement scales.

For data collection, semi-structured interviews will be conducted in order to gain a deeper understanding about the topic, as well as to comprehend the constructs in the conceptual model and to generate their domains and measurement. This will be

followed by a pilot study which will be conducted in order to gather data for purifying measurement scales. Afterwards, sample questionnaires containing will be distributed to managers of Taiwanese pharmaceutical companies. Before the completed questionnaires are returned, the researcher will ask the respondents to point out any items that tend to be either ambiguous or difficult to answer. Subsequently, questionnaires for the main survey will be developed. Managers or firm strategy decision-makers of Taiwanese pharmaceutical companies will be respondents for the main survey. According to the aforementioned discussion, conducting the research in Taiwan will facilitate the evaluation of the external validity of theories (i.e. the applicability of theories in other contexts).

### **1.9 Limitations of the research**

This study will be conducted in a single country and within a single industry setting, which therefore does limit the external validity (generalisability of findings). However, conducting research in a single setting provides the researcher with a better control over market and environmental differences (Conant et al., 1990) and industry effects (Rao, 1994).

In addition, the causality of the relationships in this research cannot be proven. Therefore, the results should be interpreted with caution in terms of the exact direction of the relationships among the constructs in this research. Since cross-sectional data captures the linkages among variables at a specific point in time, it may not be generalised to other periods of time. To understand the development of uses of the corporate reputation process over time, longitudinal data collection will be necessary.

Furthermore, this study comprehensively examines the effect of the uses of corporate reputation in pharmaceutical companies on brand image strategy. According to several of the variables affecting brand image strategy creation, therefore, it tends to be difficult to make a study providing a detailed investigation of all elements affecting the studied phenomena. Therefore, it is possible that other constructs could be used.

## 1.10 Structure of the thesis

The researcher plans to present this doctoral thesis in seven chapters, as follows:

### **Chapter 1 Introduction**

**Chapter 2 Literature review:** a review of literature on the uses of corporate reputation as well as its effects is the focus of this chapter. The chapter will first provide background by initially discussing the movement and influence of corporate reputation and brand image strategy management within pharmaceutical companies and then explaining further the concept of brand image strategy. Previous studies on the effects of brand image strategy will subsequently be reviewed. Finally, research gaps will be identified and discussed.

**Chapter 3 Conceptual framework and hypotheses:** the discussion on the uses of corporate reputation in a pharmaceutical company from a value creation, strategic resources and corporate communication perspective is presented in this section. Furthermore, the effect of the uses of corporate reputation in the pharmaceutical industry on a firm's brand image strategy application will be discussed. Finally, research hypotheses will be provided after the discussion of each component of the framework. Measurement scales will be presented at the end of the chapter.

**Chapter 4 Research methodology:** the research philosophy will be briefly reviewed. Then, two general approaches in theory construction, qualitative and quantitative, will be discussed. The research design, including the research setting and data collection process will be elaborated. Finally, issues regarding data analysis will be highlighted and explained.

**Chapter 5 Data analysis and research findings:** the findings from both qualitative and quantitative studies will be presented in this chapter. The outcomes of the scale development (the researcher plans to conduct a literature search, semi-structured

interviews and a pilot study) will be reviewed. The results of scale reliability and validity tests will be presented. Then, the results of hypotheses testing will be shown.

**Chapter 6 Discussion:** a discussion about the findings from the previous chapter will be presented in this chapter. The outcomes of the scale development and the results of hypotheses testing will be discussed respectively.

**Chapter 7 Conclusion:** a summary of the study results will be presented. Research implications (theoretical, managerial, policy establishing), research limitations and possible future research directions will be discussed in this chapter.

The literature review follows in the next chapter, Chapter 2.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

A positive corporate reputation brings multiple benefits to a firm, such as the ability to withstand occasional adverse publicity (Fombrun and Shanley, 1990), higher levels of customer purchase intention (Yoon et al., 1993), strong organisational identification among employees (Dutton et al., 1994), better attitudes towards the company's salespeople and products on the part of industrial buyers (Brown, 1997), customer loyalty (Saxton, 1998), the attraction of investors (Fombrun and Shanley, 1990) and greater competitive advantage (Fombrun and Shanley, 1990; McMillan and Joshi, 1997). Based on the above findings by previous scholars, it is assumed that corporate reputation can increase financial performance. However, Gök and Özkaya's (2011) study finds that a portfolio of highly reputed firms in an emerging economy (such as Turkey) earns about 10 percent less than that market's overall portfolio annually.

Fombrun and Shanley (1990) note that a good reputation can serve as a value signal in situations of information overload, complexity or inadequacy. Buyers frequently employ their perceptions of an organisation's reputation to interpret "ambiguous informational signals" about it and hence to "gauge its relative merits" (p. 233). They suggest that reputation represents an important cue about how a supplier's products, strategies and prospects compare with those of competing enterprises (Bennett and Gabriel, 2001).

In conformity with the objective of this thesis, which is to establish the use of corporate reputation in the development of brand image strategy and its effect on sales increases, this chapter provides a theoretical review of the uses of the concept of corporate reputation, and the strategic uses of corporate reputation in its relationship with brand image strategy. In order to accomplish this objective, scholars' view on the concept of corporate reputation on marketing, management, organisational studies, economics and business studies will be reviewed.

In the first section, there is a brief review of the definition of corporate reputation. This is followed by a review of six areas of study (i.e. public relations, marketing, management, economics, sociological, and finance and accounting) where the uses of corporate reputation have been constructed as a concept. An attempt is made to identify and integrate the arguments within the theoretical paradigms into a cohesive synthesis which shows the uses of corporate reputation. In the second section, following the review of these different perspectives, the author will define the gaps in this study by arguing that there is a limited understanding of how corporate reputation enhances the development of brand image strategy in order to enhance its market share. In the third section, new paradigmatic concepts emerging from this review together with the problem of this area of study will be highlighted and summarised. The final section reviews the research question of this dissertation.

## **2.2 The definition of corporate reputation**

Several definitions purporting to explain the concept of corporate reputation have been offered by various authors (e.g. Bennett and Kottasz, 2000, p.224). The majority of these definitions have emerged from public relations (Hutton et al., 2001), marketing (Herbig and Milewicz, 1995; Gray and Balmer, 1998; Weiss et al., 1999), economics (Shapiro, 1982, 1983), sociology (Camic, 1992) and strategic management (Weigelt and Camerer, 1988; Hall, 1992; Fombrun, 1996; Roberts and Dowling, 2002).

One of the most cited definitions of corporate reputation was put forward by Weigelt and Camerer (1988) in strategic management. They argued that corporate reputation is an attribute or a set of attributes ascribed to a firm and inferred from the firm's past actions. It is the belief of market participants about a firm's strategic character (Weigelt and Camerer, 1988). Similarly, another important definition which has been cited in many works is that presented in the work of Roberts and Dowling (2002). They contend that corporate reputation is the public's cumulative judgement of firms over time. Some other researchers have discussed corporate reputation as a history of customer perception about the firm, such as collective beliefs that exist in the

organisational field about a firm's identity and prominence (Rao, 1994; Rindova and Kotha, 2001), media visibility and the business favour gained by a firm (Deephouse, 2000).

Corporate reputation was initially studied in the field of sociology with regard to an individual's reputation. Topics studied included the impact of reputation on occupational change (e.g. Gold, 1952; Kriesberg, 1952; Wardwell and Wood, 1956) and the power and decision-making of individuals (e.g. Klapp, 1948; Schulze and Blumber, 1957; Walton, 1966).

In economics, corporate reputation is described as either a trait or signal (Kreps and Wilson, 1982; Shapiro, 1989) which can be transmitted from a company to its customers to give some clues about products or give an advance warning about retaliations if competitors make any adversarial moves (Weight and Camerer, 1988).

From the strategic management perspective, corporate reputation is regarded either as a strategic resource or mobility barrier (Cave and Porter, 1977; Hall, 1992, 1993; Rao, 1994; Roberts and Dowling, 2002; Carmeli and Tishler, 2004). It is an asset that cannot be bought, is not easy to imitate, and cannot be substituted (Barney, 1986; Dierickx and Cool, 1989). In general, it is difficult to copy interaction between a firm and its stakeholders (Fombrun and van Riel, 1997). In addition, it takes some time for new entrants to a competitive market to acquire a reputation (Hall, 1993) to a level comparable to those of its rivals. Empirical studies show that in order for a corporate reputation to be established, a company must consistently maintain credible transactions over time (Herbig and Milewicz, 1993; Herbig et al., 1994). During the reputation-building process, the new entrants usually would have a difficult time in trying to attract customers as they are likely to be sceptical about a company's existence as well as its products and services.

On the other hand, sociologists do not view corporate reputation as an asset or a thing under possession but rather regard it as a social construction which can be built through the relationship between a company and its stakeholders (Perrow, 1961a; 1961b; Shrum and Wuthnow, 1988). To sociologists, reputation is an indicator of legitimacy or social

acceptance, which reflects the fit between expectations (Galaskiewicz, 1985; Fombrun and van Riel, 1997). An empirical study (Rao, 1994) demonstrates that by winning a certification contest in the automobile industry, a company can acquire acceptances from its stakeholders, justify its existence, especially for a young organisation, and build its reputation by accumulating more victories over time.

Additionally, corporate reputation also has one of its roots in social identity theory (SIT). At the individual level, SIT refers to the perception a person develops to identify who he/she is in terms of his/her group membership (Turner, 1984) and stems from several sources such as the categorisation of individuals, and the distinctiveness and prestige (i.e. reputation) of the group (Ashforth and Mael, 1989). It provides a partial answer to the question “Who am I?” (Abrams and Hogg, 1990; Hogg and McGarty, 1990). Social identification normally leads to activities that are consistent with his/her core values and the support for any institutions that embody those values (Ashforth and Mael, 1989). Essentially, reputation can be viewed as the estimation of how well one’s behaviour fits with “who” one claims to be and is captured by public opinion (Long-Tolbert, 2000). In other words, reputation acts as a reflection of someone’s activities and identity and simultaneously as a source from which a person derives his/her individuality.

In general management, organisational theorists usually view corporate reputation from the same angle as that of sociologists. The relationship between corporate reputation and corporate identity appears to be a never-ending story. On the one hand, corporate reputation is considered a projection of both an organisation’s identity (who we are) and image (what we think other people think about us) (Fombrun, 1996; Davies et al., 2003). On the other hand, an impression formed by a stakeholder of an organisation results in his/her positive or negative reactions towards the organisation (Long-Tolbert 2000, p.34), hence enhancing the reformulation or maintenance of its identity.

In addition, this circular relationship also implies that corporate reputation is collective and is shaped and reshaped over time. These characteristics of corporate reputation are embedded in the development of definitions proposed by management scholars. For example, Fombrun and Shanley (1990) had defined the term as “the outcome of a



competitive process in which firms signal their key characteristics to constituents to maximise their social statuses”. The definition is borrowed from economics literature and focuses only on the evaluation of past actions (i.e. the outcome of the competitive process over a time horizon).

Subsequently, Fombrun (1996, p.72) defined corporate reputation as “a perceptual representation of a company’s past actions and future perceptual representation of a company’s past actions and future prospects that describes the firm’s overall appeal to all of its key constituents when compared with other leading rivals”. In the latter definition, the elements regarding the competitive process, the key characteristics of a company and communication with key constituents are still included but another element, about future expectations about a company’s activities, is added as a part of overall assessment of corporate reputation.

Corporate reputation is also found as a signal of a firm’s actions in marketing literature as a signal to its customers of a firm’s actions (i.e. Fombrun and Shanley, 1990; Herbig et al., 1994; Acquah, 2003). Marketers send, seek for and interpret marketing cues to try to understand the beliefs, attitudes, or intentions of market participants (Herbig and Milewicz, 1993). According to attitude theories such as the expectancy-value theory (Fishbein and Ajzen, 1975), market participants (e.g. consumer, retailer, supplier, etc.) make decisions by selecting the alternative which is perceived to be most promising and is likely to lead to the most favourable outcomes for them. Consistent positive signals about a company’s products or services quality can enhance its credibility (Herbig et al., 1994) and positively influence customers’ attitudes as well as purchase intentions (e.g. Campbell, 1999; Goldberg and Hartwick, 1990). On the other hand, less positive or negative signals can render opposite results, especially when signals are sent out inconsistently (e.g. LaBarbera, 1982).

Corporate reputation is also found as a combination of personalities of a company (e.g. Spector, 1961; Davies et al., 2003) in another stream of marketing literature. A company is personified and assigned relevant personalities usually borrowed from psychological research. A company can have up to seven types of human-like traits such as agreeableness, chicness and ruthlessness (Davies et al., 2003). Two relevant

issues, however, should be noted here. First, conceptualising reputation as trait is not always evaluative (Berens and van Riel, 2004). A certain type of personality is assessed to be positive or negative partly based on the perceived fit between that personality and an observer's personality (Huston and Levinger, 1978 cited in Berens and van Riel, 2004). Moreover, empirical evidence (e.g. Davies et al., 2003, 2004) has confirmed the complex nature of corporate reputation. It has been shown that corporate reputation has multiple characteristics, each of which can be interpreted altogether or separately to describe a company.

However, in the past, some marketing scholars used the term corporate reputation interchangeably with corporate image. The definition of this concept is also varied. For instance, it used to be defined as “the whole sensory perceptions and thought interrelationships associated with an entity by one individual” (Enis, 1967, p.51) and as “impressions and mental pictures about things” (Kennedy, 1977, p.152). It can be seen that the mental picture of constituents is an important element in these early definitions. In recent years, the mental component has been less salient. The definitions offered by marketing scholars and those of general management researchers have started to converge. To marketing researchers, corporate reputation has become distinct from corporate image. According to Balmer (1998), corporate reputation refers to the perception of an organisation which is built up over a period of time and which focuses on what it does and how it behaves. More examples of definitions by different scholars are shown in Table 2.1.

Table 2.1: Examples of definitions of corporate reputation

Research Areas	Definition	Related References
Economics	Customer expectation and belief about a firm's product quality.	Shapiro (1982, 1983)
Sociology	A prevailing collective agreement about an actor's attributes or achievement based on what the relevant public knows about the actor.	Camic (1992)
Strategic Management	An attribute or a set of attributes ascribed to a firm, inferred from the firm's past actions.	Weigelt and Camerer (1988)
Strategic Management	Public's cumulative judgements of firms over time.	Roberts and Dowling (2002)
Strategic Management	Stakeholder's knowledge and emotional reactions (e.g. affect, esteem, etc.) towards a firm.	Hall (1992); Fombrun (1996)
Marketing	The estimation of the consistency over time of an attribute of an entity.	Herbig and Milewicz (1995)

Marketing	Public esteem judged by others	Weiss et al. (1999)
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Marketing	A value judgement about a company's attributes that evolves over time as a result of consistent performance, reinforced by effective communication.	Gray and Balmer (1998)
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Source: Adapted from Bennett and Kottasz (2000, p.224).

According to Bensiali (2011), corporate reputation is based on intangible aspects of an organisation's performance, culture, marketing and quality of product and service and takes time to spread.

Furthermore, Burke (2011) argues that corporate reputation is becoming increasingly important. The advantages of corporate reputation are summarised (p. 5):

*"...A positive organization reputation will increasingly influence purchase decisions when there is little difference in price, quality design and product. There is even more competition, lack of differentiation, and pricing concerns in the service sector. Thus building a highly regarded corporate reputation or corporate brand had become even more important."*

Burke (2011) moreover argued that there could be threats for a firm's if it doesn't pay attention to build its corporate reputation:

*"These include "bad behavior" by executives, unsafe or defective products, customer complaints, employee complaints, poor treatment of employees, poor handling of layoffs and/or termination."(p. 19)*

*"Interestingly, most people have a low opinion of corporations in general. So being admired offers an even more substantial benefit. In addition, there are more threats to a company's reputation today than previously."(p. 6)*

### **2.2.1 The uses of corporate reputation: a theoretical analysis**

The review of theoretical literature indicates that academic and practitioner contributions towards the understanding of the uses of corporate reputation by business organisations can be theorized along six dominant paradigmatic perspectives. These are: sociological;(1) public relations; (2) marketing; (3) management, (4) economic; (5) 6-financesociological; (6) finance and accounting. Some ideas regarding the uses of

corporate reputation are drawn from a public relations perspective. However, most of the arguments are suggested by the marketing, management, financial and accounting scholars in the broad field of management studies. These are discussed comprehensively in the paragraphs that follow.

#### **2.2.1.1 The uses of corporate reputation in public relations literature**

There is a common notion that public relations academics and practitioners are the premier proponents of the concept of corporate reputation. Works by Jeffries-Fox Associates (2000) suggests that this may be true. Previous research has examined the concept of corporate social responsibility in terms of how firms can use it to articulate social responsibilities to various stakeholders (Lerbinger, 1965). According to Grunig et al. (1992), these goals can be achieved through the development of relationships with their publics. Therefore, public relations fulfil its responsibility by promoting human welfare. It also contributes towards the development of social systems that are needed to adapt to the changing needs of the environment (Cutlip et al., 2003).

Another use of corporate reputation within the public relations paradigm is that corporate reputation is a tool used by firms to attract the best employees, raise capital effectively, become a good community member, or gain and retain loyal customers. In the same vein, L'Etang (2006) shows that corporate reputation helps to protect firms from excessive interpretations by reducing media to "secondary definers" (Chibnall, 1977; Hall et al., 1978; McNair, 1996).

#### **2.2.1.2 The uses of corporate reputation in marketing literature**

Marketing literature also provides a variety of papers addressing the uses of corporate reputation. For instance, corporate reputation is commonly used as a signal by business organisations to attract customers or enable customers' trust in their company products or services (Herbig and Milewicz, 1993). Marketers and business organisations use and deploy reputational cues that are interpreted by stakeholders, who often make a conscious attempt towards understanding the beliefs, attitudes, or intentions of market participants (Herbig and Milewicz, 1993). A firm with a good reputation can use this as a tool to underpin that aspect of the market value stock price that is not directly

attributable to organisational assets and liabilities. It enables firms to make higher profits than would be derived from the selling of its tangible assets. The use of corporate reputation often occurs in the case of an acquisition (Walsh et al., 2008).

A particular area in marketing, which is in the consumer behaviour literature, is that corporate reputation assists consumers who are constantly challenged by purchase decision-making. This means that reputation provides important clues about how a supplier's products, strategies and prospects compare with those of competing enterprises (Fombrun and Shanley, 1990). For instance, the reputation developed by firms often helps customers to select an alternative which is perceived to be most promising and is likely to lead to the most favourable outcomes (Srivoravilai, 2006). Fombrun and Shanley (1990) also note that a good reputation serves as a value signal in situations of information overload, complexity or inadequacy. In other words, firms use their reputation to enable customers to gauge the merits of a product or service, especially when customers are faced with vague corporate or product information (Fombrun and Shanley, 1990). In addition, consistent positive reputational signals about the quality of a company's products or services can enhance credibility (Herbig et al., 1994) and positively influence customers' attitudes as well as their purchasing intentions (e.g. Goldberg and Hartwick, 1990; Campbell, 1999). For example, Nguyen and Leblanc (2001) claimed that in the services sector, firms increase their corporate reputation by influencing consumer behaviour through the use of factors such as contact personnel and the physical environment. These factors provide benefits promised to customers during service transactions.

Similarly, some researchers (Day, 1994; Srivoravilai, 2006) asserted that if a company has strong marketing capabilities, it will signal the use of part of the firm's capabilities to meet the needs of stakeholders (Acquaah, 2003). Consequently, firms use such capabilities as reputational platforms that create a distinctive position about the company in the minds of stakeholders (Fombrun and van Riel, 2004).

Devine and Halpern (2001) argued that corporate reputation plays a role in value creation for shareholders. These authors contended that a firm's corporate reputation is a signal for top-quality products, good working conditions and excellent service quality. Dolphin (2004) also

suggested that corporate reputation is used as a value-creating tool. Similarly, Caruana (1997) believed that corporate reputation is used as a means of generating good returns on a firm's investment over time (Fombrun, 1996). Bennett and Gabriel (2001) mention that in the event of corporate scandals, a positive reputation is usually drawn to counter unjustifiable attacks and negative publicity arising from stakeholders. It is also used to attract investors (Fombrun and Shanley, 1990).

A good corporate reputation reduced transaction costs and provides beneficial financial and non-financial outcomes (Caruana et al., 2004) to business organisations. A firm with an established corporate reputation can use its history-based reputation to further or court even better reputations among customers (Fombrun and Shanly, 1990).

It is commonly argued among marketing scholars that the idea of a favourable corporate reputation is used to develop competitive advantage (Worcester, 1986; Fombrun and Shanley, 1990; Maathuis, 1993; Greyser, 1996) and firm value (Fombrun and Shanley, 1990; Gregory, 1991; Marconi, 1991; Fortune, 1995). Moreover, the development of a good corporate reputation enhances organisational impact on customers' retention decisions and increases customer loyalty (Saxton, 1998). In a similar vein, Fombrun (1996) contended that corporate reputation is commonly drawn by business organisations as a form of goodwill. This is often used to effectively position the business itself favourably in the minds of stakeholders as well as a means of differentiating themselves from competitors (Day, 1994). Similarly, Fombrun (2002) proposed that corporate reputation provides signals about the future of organisations. Such signals provide insights into the firm's profit-making ability as well as the firm's ability to achieve well-defined organisational goals.

### **2.2.1.3 The uses of corporate reputation in management literature**

However, similarly to marketing perspectives, in management studies, general management scholars argue that a favourable corporate reputation is used by firms to generate a competitive advantage (Caves and Porter, 1977; Wilson, 1985; McMillan and Joshi, 1997). They regard corporate reputation as a strategic resource (Cave and Porter, 1977; Hall, 1992, 1993; Rao, 1994; Roberts and Dowling, 2002; Carmeli and Tishler, 2004) used to protect firms from new competitors in the market. For instance, corporate

reputation is regarded by some researchers (Shenkar and Yuchtman-Yaar, 1997) as an important factor that enables business organisations to exist over a long period of time and it is difficult for businesses to even operate without a corporate reputation.

Moreover, a good corporate reputation allows a firm not only to attract new consumers but also keep the existing ones. Some consumers rely on a trustworthy corporate image and a company's history-based reputation in environments where they are unaware of the quality or other features of a product (Shkolnikov et al., 2004). Researchers (Shkolnikov et al., 2004) moreover argued that firms build up their corporate reputation in order to increase customer loyalty, reduce business risk and improve their bottom line. In modern corporations, reputation is used as a value-creating mechanism and stakeholders pay close attention to it.

Reputation is a tool that is used to signify an organisation's perceived capacity to meet their stakeholders' expectations (Waddock, 2000). In other words, firms use corporate reputation in order to give a positional advantage by using various strategies to differentiate themselves from competitors (Hall, 1992). A positive corporate reputation will not only provide a greater competitive advantage for a firm (McMillan and Joshi, 1997) but also accrue strong organisational identification among employees (Dutton et al., 1994) and better attitudes towards the company's salespeople and products on the part of industrial buyers (Brown, 1997).

Consequently, it is agreed by many management scholars that a successful corporate reputation increases a firm's financial performance. For instance, Roberts and Dowling (2002) asserted that good corporate reputations are crucial because of their potential for value creation, but also because of their intangible character which make replication by competing firms considerably more difficult. McGuire et al. (1990) also confirm the expected benefits associated with good reputations, providing strong evidence that the customers' perceptions of a firm quality can be a cause or result of a firm's performance. Roberts and Dowling (2002) proved that a successful corporate reputation is capable of increasing a company's financial performance. They added that firms with relatively good reputations are better able to sustain superior profits over time.

In the same vein, Stanwick and Stanwick (1998) argue that building a firm's corporate reputation requires the development or generation of feedback from stakeholders within the environment. They use the corporate reputation measures – which are consistently used in many studies (i.e. McGuire et al., 1988; Fombrun and Shanley, 1990; Thomas and Simerly, 1994) – to measure corporate social responsibility. They found empirically that corporate reputation increases corporate social performance resulting in a better environmental performance.

In light of its potential impact on financial performance, the idea of corporate reputation has been developed in a wider scope. Fryxell and Wang's (1994) crucial insight provides a detailed analysis of the multi-dimensionality of corporate reputation. They argued that corporate reputation impacts significantly on the perceptions of shareholders and stakeholders. Similarly, Smith (1994) presented some evidence supporting the positive influence and the use of a good corporate reputation on the development of organisational value. Clardy (2005) argued that there is a synergy between a firm's corporate reputation and its goodwill, since the accounting profession has rules for how to calculate and report goodwill in financial statements. Based on this assertion, one could argue that corporate reputation is capable of being used as a means of developing goodwill among stakeholders (Clardy, 2005).

#### **2.2.1.4 The uses of corporate reputation in economics literature**

In economics, as with marketing and management scholars, Brammer and Pavelin (2006) also suggested that the multi-dimensionality of corporate reputation impacts on the perceptions of shareholders and stakeholders. Thus, it is possible to see corporate reputation as a very important phenomenon that creates trust in the minds of consumers. Akerlof (1970) argued that corporate reputation is an information signal that firms often use to protect their accumulated capital and assets.

Similarly, Punete et al. (2007) argued that good corporate reputation signals enable businesses to predict human behaviour in the future. Consequently, the use of corporate reputation as a behaviour signal contributes towards a thorough understanding of not only consumers but also of a firm's key competitors of (Kreps and Wilson, 1982; Milgrom and Roberts, 1982). More importantly, the development of a good corporate



reputation, especially among customers, encourages the production of top-quality products (Nelson, 1970; Milgrom and Roberts, 1986) and services (Wilson, 1983; de Angelo, 1981; Dranove, 1983; Rogerson, 1983; Eichenseher and Shields, 1985; Beatty and Ritter, 1986).

Equally, Weigelt and Camerer (1988) argued that corporate reputation is strategically important. It is used as either a trait or a signal (Kreps and Wilson, 1982; Shapiro, 1989) which can be transmitted from a company to its customers in order to give information about products or give an advance warning of competitor retaliation (Weigelt and Camerer, 1988). They argued that it is used by stakeholders to forecast the potential behaviour of a firm. Weigelt and Camerer (1988) also indicated that corporate reputation gives an organisation some return on its investment over time in “non-salvageable goodwill”.

Some economic scholars (Stigler, 1962; Klein and Leffler, 1981; Milgrom and Roberts, 1986) suggested that a good corporate reputation gives an organisation a competitive advantage. It is also regarded by some other economic researchers that corporate reputation is used, drawn and presented to stakeholders as an asset which cannot be bought, and thus is not easy to imitate or substitute (Dierickx and Cool, 1989). Shapiro (1983) argued that a strong corporate reputation has been shown to be associated with reduced transaction costs, together with beneficial financial and non-financial outcomes. Corporate reputation is a cyclical phenomenon that signifies the character of a firm to competitors (Milgrom and Roberts, 1982) and customers (Rogerson, 1983). Puente et al. (2007) asserted that well-regarded firms use their previous reputation to occupy privileged positions in the business environment, using it to attract better resources on more favourable terms. Landon and Smith's (1997) empirical work indicates that consumers use the established reputation of firms when making their purchase decisions. In another empirical study, Sabate and Puente (2003) argued that consumers take note of corporate reputation in their individual purchasing decisions. This again signifies the usefulness of corporate reputation to firms.

#### **2.2.1.5 The uses of corporate reputation in sociology literature**

However, in sociology, corporate reputation is regarded as a social construction that is used to build up the relationship between a company and its stakeholders (Perrow, 1961a; Perrow, 1961b; Shrum and Wuthnow, 1988) rather than as an asset or possession as theorised under marketing (see For instance Fombrun and van Riel). Similarly, Cornell and Shapiro (1987) asserted that it is possible for firms to lose accumulated reputation if they fail to keep stakeholders happy or satisfy their expectations. Thus, the notion of corporate reputation is used as a guarantor of contracts. Following this argument, reputation is used as an indicator of legitimacy or social acceptance, which reflects the congruence of expectations (Galaskiewicz, 1985).

#### **2.2.1.6 The uses of corporate reputation in finance and accounting literature**

Apart from these, the use of corporate reputation has also generated interest among finance and accounting authors. In accounting, corporate reputation is used to generate goodwill amongst stakeholders (Rose and Thomsen, 2004) – and when firms have a reputation based on a good history of performance, it impacts positively on the perceptions of shareholders and stakeholders (Rose and Thomsen, 2004). More importantly, it helps to increase the value of returns to shareholders and stakeholders (Rose and Thomsen, 2004). Thus, it is possible to see corporate reputation as the very phenomenon that creates trust in the minds of stakeholders. It contributes towards reduced transaction costs and provides beneficial financial and non-financial outcomes (Rose and Thomsen, 2004).

Goodwill, which is commonly conceived among accountants as the basis of corporate reputation, was originally used to describe the “intrinsic value” inherent in an ongoing business. Therefore, from an accounting perspective, goodwill is an intangible asset (Higson, 1998) which gives stakeholders extra value. Thus, firms use their goodwill or reputation as plausible factors that enable a rise in sales level higher than the value of their net assets.

According to Beatty and Ritter (1986), a favourable corporate reputation gives a firm a competitive advantage. It can be used to reflect the portion of the market value of a business entity not directly attributable to its assets and liabilities. Moreover, a good corporate reputation is also used to highlight the ability of firms to make a higher profit

than would be derived from selling only their tangible assets. It also enhances the ability to raise loans from financial institutions, which, in turn, influences a firm's easy access to financial capital (Beatty and Ritter, 1986; Garbett, 1988). In some other accounting studies, a firm's good reputation encourages employees to be devoted and stay longer (Markham, 1972; IOD, 1999) and it is increasingly seen as an intangible asset that create value in the future (DTI, 2001).

However, in a world where a significant number of the most powerful economic entities are corporations, intangible assets like reputation are used and presented to stakeholders as corporate valuables (Moerman and Laan, 2006). Moreover, as argued by Okano et al. (1999), goodwill or corporate reputation is often used as an experiential asset. It is conceived as a phenomenon which enables firms to profit from a variety of benefits, such as increase in share price and positive financial performance (see Herremans et al., 1993).

### **2.2.2 Diversities and similarities in the theoretical conceptualisation of the use of corporate reputation**

The review of theoretical literature from various academic areas (i.e. public relations, marketing, management, economic, sociological, finance and accounting) indicates a strong overlap in the theoretical concept building of the uses of the concept of corporate reputation among business organisations. As seen in the review of literature, scholars belonging to different areas appear to have conceptualised the uses of corporate reputation in similar ways. Thus, there is very little difference between the ways that public relations and marketing academics have theorised the use of corporate reputation. Nor is there a significant divergence between the ways in which management academics and economics and accounting and finance academics have theorised the use of corporate reputation.

Now because the uses of corporate reputation (as attested in the review of corporate reputation in the paragraphs above) are conceptually related, it becomes imperative and highly necessary to bring together various overlapping theories to enable us to focus on the discourse in this chapter. Thus, an attempt shall be made in the following paragraph

to develop a synthesis that brings together all related theories concerning the use of corporate reputation into a holistic, cohesive and coherent synthesis in order to develop a useful and deeper understanding of the uses of corporate reputation.

#### **2.2.2.1 The uses of corporate reputation: a synthesis of overlaps**

Attention was drawn to the emergence of a number of conceptual overlaps in the literature concerning use of corporate reputation. This paragraph makes a follow-up by presenting a synthesis underscoring the emergence of eleven conceptual overlaps on (see Table 2.2, 2.2) within the literature relating to the focus of this chapter. The interconnected arguments leading to these overlaps are discussed below. Mainly, the uses of corporate reputation are categorized into three groups: value creation, influencing competitor's actions and developing the relationship with stakeholders.

##### ***Value creation***

Corporate reputation is used as a tool for creating value in much previous research (see synthesis S3 in Table 2.2). Arguments highlighted under the marketing perspective point to the use of corporate reputation as a value-creating tool (Dolphin, 2004) which has a positive influence on firm value (Fombrun and Shanley, 1990; Gregory, 1991; Marconi, 1991; Fortune, 1995). A similar argument was presented under the finance and accounting perspective. For instance, Moerman and Laan (2006) state that corporate reputation is used and presented to stakeholders as a corporate valuable (Okano et al., 1999) or as an intangible asset that creates value in the future (DTI, 2001). The same idea is supported by economics scholars (see Dierickx and Cool, 1989) who contend that corporate reputation is used as an asset, which cannot be bought, and thus is not easy to imitate or substitute. Some management scholars also hold a similar idea in that corporate reputation is regarded as an asset which cannot be bought, and thus is not easy to imitate or substitute (Barney, 1986). Similarly, Shkolnikov et al. (2004) declare that corporate reputation is used as a value-creating mechanism. Corroborating, Smith (1994) averred that corporate reputation is commonly drawn as a tool for the development of organisational value. Roberts and Dowling (2002) also say that corporate reputation is used to express a firm's strategic value. Similar arguments are supported by sociology scholars (see Rose and Thomsen, 2004) who declared that corporate reputation is used to increase the value of returns to shareholders.

Moreover, corporate reputation is used as a tool for promising good-quality products and service to customers (see S9 in Table 2.2). Arguments presented under the marketing perspective point to the notion that positive reputational signals about the quality of a company's products or services can enhance credibility (Herbig et al., 1994). Similarly, Devine and Halpern (2001) also support the idea that a firm's corporate reputation is used as a promise for good brand quality and good service levels. Economics scholars also hold parallel ideas: a good corporate reputation encourages the production of top-quality products and services (Nelson, 1970; De Angelo, 1981; Wilson, 1983; Dranove, 1983; Rogerson, 1983; Eichenseher and Shields, 1985; Milgrom and Roberts, 1986; Beatty and Ritter, 1986).

Furthermore, corporate reputation is used to reduce transaction costs (see S11 in Table 2.2.). Marketing scholars (see Caruana et al., 2004) argue that a strong corporate reputation is connected to reducing the generation of transaction costs. Works within the economic perspective (Shapiro, 1983) also support this idea. Shapiro (1983) argued that corporate reputation reduces transaction costs, yielding beneficial financial and non-financial outcomes. Similarly this idea is also supported by management scholars (see Eberl and Schwaiger, 2005).

**Table 2.2:** Theoretical conceptualisations of the uses of corporate reputation

Statements	Author	Syn
<b>Public relations perspective</b>		
Communicate firm's social responsibility to various stakeholders	Lerbinger (1965); Grunig et al. (1992)	S1
Attract the best employees, raise capital effectively, become a good community member or gain and retain loyal customers		DC
Protect firms from excessive interpretations among stakeholders	L'Etang (2006); Chibnall (1977); Hall et al. (1978); McNair (1996)	S3
Used as an indicator of legitimacy or social acceptance, reflecting a congruence of expectations	Fombrun and van Riel (1997)	DC
<b>Marketing perspective</b>		
Commonly used as a signal. Cues are interpreted by stakeholders who often make a conscious attempt to understand the beliefs, attitudes or intentions of market participants are sent use or deploy	Herbig and Milewicz (1993)	S8
Create a distinctive position of the company in the mind of stakeholders	Fombrun and van Riel (2004)	S9
Generate good returns on a firm's investment over time	Caruana (1997); Fombrun (1996); Day (1994)	S11
Gives the stakeholder a prospect about how key resource providers interpret a company's initiatives and assess its ability to deliver value outcomes' from a firm's past actions (Fombrun, 2002)		
Give positional advantage through strategies to differentiate itself from other competitors	Day (1994)	S9
Use as a value-creating tool	Dolphin (2004)	S5
Have influence on firm	Fombrun and Shanley (1990); Fortune (1995); Gregory (1991); Marconi (1991)	S5
A favourable corporate reputation gives an organisation a competitive advantage	Fombrun and Shanley (1990); Greyser (1996); Maathuis (1993); Worcester (1986)	S9
Enhance "the ability to withstand occasional adverse publicity"	Fombrun and Shanley (1990)	DC
Counter unjustifiable attacks and negative publicity among stakeholders	Bennett and Gabriel (2001)	DC
Attract investors	Fombrun and Shanley (1990)	DC
Further or court even better reputations among customers	Fombrun and Shanly (1990)	S2
Affect corporate performance	Srivastava et al. (1997)	S11
Help customers to select the alternative which is perceived to be most promising and is likely to lead to the most favourable outcomes	Srivoravilai (2006)	S3
Serve as a value signal in situations of information overload, complexity or inadequacy.	Fombrun and Shanley (1990)	S3
Enable customers to gauge the merits of a product or service, especially when customers are faced by vague corporate or product information		
Consistent positive reputational signals about the quality of a company's products or services can enhance credibility	Herbig et al. (1994)	S6
Provide important clues about how a supplier's products, strategies and prospects compare with those of competing enterprises	Fombrun and Shanley (1990)	DC
Involve customers to act as advocates of the company	Walsh et al. (2008)	DC

Enhance higher levels of customer purchasing and customer loyalty	Yoon et al. (1993); Saxton (1998)	DC
Positively influence customers' attitudes as well as their purchasing intentions	Campbell (1999); Goldberg and Hartwick (1990)	DC
Enhance the impact on customers' retention decisions, having a huge impact on customer loyalty	Nguyen and Leblanc (2001)	DC
A strong corporate reputation has been shown to be associated with reduced transaction costs together with beneficial financial and non-financial outcomes	Caruana et al. (2004)	S7
Plays a role in value creation for their shareholders, promising quality, good working conditions and service levels which are not explicitly stated in any contracts, but when present, it also permit a company to sell products and/or services at higher prices, and purchase goods and services from suppliers at lower prices than competitors	Devine and Halpern (2001)	S6

### Finance & Accounting perspective

Is firm's intangible asset which stakeholders believe it will give them some extra value	Higson (1998)	DC
Influences firm's easy access to financial capital	Beatty and Ritter (1986); Garbett (1988)	DC
Encourages employees to be devoted and stay longer with a firm	IOD (1999); Markham (1972)	DC
Used as an experiential asset	Okano et al. (1999)	S5
Used and presented to stakeholders as corporate valuables	Moerman and Laan (2006)	S5
Increasingly seen as an intangible asset that creates value in the future	DTI (2001)	S5
Enable firms to profit from a variety of benefits	Herremans et al. (1993)	S5
Give a firm competitive advantage	Beatty and Ritter (1986)	S9

### Economic perspective

Impacts on both the perceptions of shareholders and stakeholders	Brammer and Pavelin (2006)	S2
Gives an organisation a competitive advantage	Klein and Leffler (1981); Milgrom and Roberts (1986); Stigler (1962)	S9
Used as a signal to forecast the potential behaviour of a firm.	Kreps and Wilson (1982); Shapiro (1989)	S8
Has an impact on financial performance	Sabate and Puente (2003); Sobol and Farrell (1988)	S11
Regarded as an asset which cannot be bought, and thus is not easy to imitate or substitute	Dierickx and Cool (1989)	S5
Can be transmitted from a company to its customers in order to give information about products or give an advance warning of retaliation if competitors make any adversarial moves	Weight and Camerer (1988)	DC
Signals or enables businesses to predict human behaviour in the future	Puente et al. (2007)	S2
Encourages the production of top-quality products and top services	Nelson (1970); Milgrom and Roberts (1986); Wilson (1983); De Angelo (1981); Eichenseher and Shields (1985); Dranove (1983); Rogerson (1983); Beatty and Ritter (1986)	S6

Reduce transaction costs together with beneficial financial and non-financial outcomes	Shapiro (1983)	S7
Used by consumers to make their purchasing decisions	Landon and Smith (1997); Sabate and Puente (2003)	S3
Is strategically important	Weigelt and Camerer (1988)	S4
Signifies the character of a firm to competitors and customers	Milgrom and Roberts (1982); Rogerson (1983)	S4
Occupies a privileged position in markets, and used to attract better resources on more favourable terms	Puente et al. (2007)	DC

### Management perspective

Lead towards the development or generation of feedback from stakeholders within the environment.	Stanwick and Stanwick (1998)	S1
Increase corporate social performance, resulting in a better environmental performance		
Generate a competitive advantage	Caves and Porter (1977); Wilson (1985); McMillan and Joshi (1997)	S9
Sustain superior profits over time. (Its potential for value creation.)	Roberts and Dowling (2002)	DC
Increase a firm's financial performance	Roberts and Dowling (2002)	S11
Corporate reputation and financial performance effects operate in both directions	McGuire et al. (1990)	S11
Use as a means of developing goodwill amongst stakeholders	Clardy (2005)	DC
Can accrue the benefits of strong organisational identification among employees	Dutton et al. (1994)	DC
Increase a firm's financial performance	Roberts and Dowling (2002)	S11
Enhance firm performance (in a sample of pure internet firms)	Kotha et al. (2001)	S11
Improve attitudes towards the company's salespeople and products on the part of industrial buyers	Brown (1997)	DC
Give a positional advantage by using various strategies to differentiate itself from other competitors	Hall (1992)	S9
Use as a value-creating mechanism	Shkolnikov et al. (2004)	S5
Used to signify an organisation's perceived capacity to meet their stakeholders' expectations	Waddock (2000)	S8
Impacts on both the perceptions of shareholders and stakeholders	Fryxell and Wang (1994)	S2
Is regarded by some researchers an asset which cannot be bought, and thus is not easy to imitate or substitute	Barney (1986)	S5
Is regarded either as a strategic resource or a mobility barrier	Carmeli and Tishler (2004); Hall (1992; 1993); Cave and Porter (1977); Rao (1994); Roberts and Dowling (2002)	DC
Is used to protect a corporation from its new competitors		
Reduce transaction costs together with beneficial financial and non-financial outcomes	Eberl and Schwaiger (2005)	S7
Provide strategic value	Roberts and Dowling (2002)	S5
Develop organisational value	Smith (1994)	S5



Enable business organisations to exist over a long period of time	Shenkar and Yuchtman-Yaar (1997)	DC
Affect corporate performance	Deephouse (1997); Brown (1997); Roberts and Dowling (1997)	S11
Attract new consumers but also keep the existing ones.	Shkolnikov et al. (2004)	S3
Increase customer loyalty, reduce business risk and improve their bottom line		

**Sociological perspective**

Is regarded as a social construction which can be built up through the relationship between a company and its stakeholders	Perrow (1961a); Perrow (1961b); Shrum and Wuthnow (1988)	S4
A guarantor of contracts	Cornell and Shapiro (1987)	S10
Serves to generate goodwill among stakeholders	Rose and Thomsen (2004)	DC
Impact positively on the perceptions of shareholders and stakeholders	Rose and Thomsen (2004)	DC
Helpi increase the value of returns to shareholders and stakeholders	Rose and Thomsen (2004)	S5
Reduce transaction costs together with beneficial financial and non-financial outcomes	Rose and Thomsen (2004)	DC

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**Summaries of synthesis**

- S1: use of corporate reputation as a means of communication
- S2: use of corporate reputation as a means of shaping the perception of shareholders and stakeholders
- S3: use of corporate reputation as a means of influencing consumer choices
- S4: use of corporate reputation as a tool for building a relationship between the firm and the customers
- S5: use of corporate reputation as a tool for creating value
- S6: use of corporate reputation as tool for promising good quality products and service to customers
- S7: use of corporate reputation to reduce transaction costs
- S8: use of corporate reputation as a signal to customers
- S9: use of corporate reputation as competitive advantage
- S10: use of corporate reputation as a strategic value or resource
- S11: use of corporate reputation as a tool for developing good financial performance

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\*S: Synthesis \*DC: Divergent conceptualisation \*Dimensions of the uses of corporate reputation: a. Communication: S1,S2,S3,S4; b. Value creation: S5,S6,S8; c. Strategic sources: S9,S10,S11

Source: Developed by the author

***Strategic resource: influencing competitor's actions/strategies***

Corporate reputation is used as a strategic value or resource by some Economic scholars (see synthesis S6 in Table 2.2.). Some economic scholars (see Weigelt and Camerer, 1988) have asserted that corporate reputation is a strategic resource as well as scholars belonging to the management perspective (Roberts and Dowling, 2002) and sociological scholars. The latter claimed that corporate reputation is commonly used as a defence strategy to ward off competitors (Cornell and Shapiro, 1987).

Moreover, corporate reputation is used as a signal to customers (see synthesis S4 in Table 2.2.). Marketing scholars have suggested that corporate reputation is commonly

used as a means of highlighting and signifying (Herbig and Milewicz, 1993) a firm's beliefs, attitudes and intentions to market participants – and thus interpreted by stakeholders. In a similar dimension, Fombrun (2002) contended that corporate reputation is often deployed by firms as a useful signal that gives stakeholders the needed insight into the future of a firm. It may be used as a signal that enables key resource providers such as banks and other financial institutions to interpret a company's initiatives from its past actions and assess its ability to deliver value outcomes' The use of corporate reputation as a signal-laden phenomenon has also been argued from an economic perspective. Succinctly, authors within the economic perspective are of the view that corporate reputation can be used as a trait or signal to forecast the potential behaviour of a firm (see Kreps and Wilson, 1982; Shapiro, 1989). Management also authors also argue that corporate reputation is used on many occasions to signify an organisation's perceived capacity to meet their stakeholders' expectations (Waddock, 2000).

Moreover, corporate reputation is used for competitive advantage (see synthesis S5 in Table 2.2.). It is commonly agreed by marketing scholars that firms use corporate reputation to create a distinctive position in the mind of stakeholders (Fombrun and van Riel, 2004) in order to attain competitive advantage (Worcester, 1986; Fombrun and Shanley, 1990; Maathuis, 1993; Greyser, 1996). Consequently, firms aspire to achieve competitive advantage by deploying strategies that will effectively differentiate them from competitors (Day, 1994). A similar argument has been put forward by scholars belonging to accounting perspectives (see Beatty and Ritter, 1986), economic perspectives (see Stigler, 1962; Klein and Leffler, 1981; Milgrom and Roberts, 1986), and management perspectives (see Caves and Porter, 1977; Wilson, 1985; Hall, 1992; McMillan and Joshi, 1997). Authors belonging to these disparate disciplines have all agreed that a favourable corporate reputation gives an organisation a competitive advantage.

### ***Corporate communication: developing the relationship with stakeholders***

Corporate reputation is commonly agreed by scholars to function as a means of communication. It is argued under the public relations perspective (see Lerbinger, 1965; Grunig et al., 1992) that corporate reputation is used to communicate a firm's social

responsibility activities to stakeholders within the business environment. Scholars within the management area have also been highly vocal about the positioning of corporate reputation as that which enhances the generation of better feedback from stakeholders within the business environment (see Stanwick and Stanwick, 1998). See also synthesis S1 in Table 2.2.

Moreover, corporate reputation is used as a means of shaping the perception of shareholders and stakeholders (see synthesis S2 in Table 2.2.). A review of theoretical literature belonging to the marketing perspective (Fombrun and Shanly, 1990) indicates that a firm's previous corporate reputation can enhance its future reputation among customers. Management scholars (Brammer and Pavelin, 2006) suggested that a firm's corporate reputation commonly shapes the opinions and perceptions of shareholders and stakeholders alike. Puente et al. (2007) argues that a firm's corporate reputation signals or enables businesses to predict human behaviour in future. A similar argument was put forward under the management perspective (Fryxell and Wang, 1994). These authors also agree that corporate reputation is often deployed to develop favourable perceptions of the firm among stakeholders.

Furthermore, corporate reputation is used as a tool for building a relationship between the firm and the customers (see synthesis S10 in Table 2.2). A review of economic literature (see Kreps and Wilson, 1982; Milgrom and Roberts, 1982) suggests that corporate reputation is used as a signal contributing towards a thorough understanding not only of consumers but also, more importantly, the key competitors of the firm (Kreps and Wilson, 1982; Milgrom and Roberts, 1982). This inadvertently enhances the development of a sound relationship. Sociological scholars (see to Perrow, 1961a; Perrow, 1961b; Shrum and Wuthnow, 1988) agree. They hold the view that corporate reputation is a device that could be drawn to build a relationship between a company and its stakeholders.

Corporate reputation is used for influencing consumer choices (see synthesis S8 in Table 2.2, s). Literature from a public relations perspective indicates that corporate reputation is drawn to protect firms from excessive interpretation among stakeholders (L'Etang, 2006; Chibnall, 1977; Hall et al., 1978; McNair, 1996). Scholars belonging

to a marketing perspective also support this viewpoint. They observe that a corporate reputation helps customers to select the best choice among many alternatives in the market (Srivoravilai, 2006) and serves as a value signal that enables customers to gauge the merits of a product or service especially in situations where customers are overloaded with information or in cases where there is inadequate information (Fombrun and Shanley, 1990) about a product. Economic scholars agreed too. They argued that corporate reputation is used by consumers to make purchasing decisions (Landon and Smith, 1997; Sabate and Puente, 2003). Corroborating this viewpoint, management scholars contend that a good corporate reputation enables the generation of increased customer loyalty (Shkolnikov et al., 2004).

#### **2.2.2.2 Use of corporate reputation: practical implications in previous research**

Previous studies have identified several best practices in brand building that firms can undertake to sustain and improve their corporate reputation.

In terms of practical implications, Siano et al. (2010) suggested that the use of corporate finance management and corporate reputation management (e.g., organization development management, cooperative management, risk management, crisis management) helps firms develop an appropriate cultural background to assist managers in maintaining corporate reputation. The integration of corporate finance with corporate communication and reputation allows firms to provide better training for managers in a deeper cultural environment, creating advantages for both large and small companies. A shared cultural background and language helps improve interactions and dialogue on both intra- and inter-organizational levels among managers, who must have a broad view of the company's resources and its competences in resources management. Especially in smaller firms, skills that are broad based rather than specific help managers make correct management decisions. In larger companies, the common management principles of financial resources and corporate reputation can be particularly useful.

Kotha et al. (2001) examined the relationship between three types of reputation-building activities and firms' performance. These activities include marketing investments in reputation, reputation borrowing and media exposure. Kotha et al. (2001) indicated that

the effects of marketing-related expenditures tend to be transient, in line with doubts raised by sceptics about the long-term viability of a brand-building strategy on the Internet. The *Economist* (1999, p. 24) similarly noted:

Most [Internet firms] despite today's towering market capitalizations, will simply fade from view, unable to hold on to their much-vaunted "eye-balls," or turn them into solid profits that build long-term businesses.

Moreover, according to Lloyd (2007), there is a strategic approach to managing corporate reputation based on stakeholder segmentation. An improved understanding of the characteristics of stakeholder targets gives management a stronger position to build valuable stakeholder relationships. Lloyd's research serves as a tool for strategy planning and for tracking a company's reputation and provides a research approach for exploring other stakeholder segments.

In their study, Shamma and Hassan (2009) classified the dimensions of corporate reputation into primary (products and services) and secondary (emotional appeal, vision and leadership, financial performance and social and environmental responsibility) pillars. The purpose of these pillars is to offer better guidance for managers who need to manage multiple facets of a company's reputation.

According to Ewing et al. (2010), many business-to-business firms are unable or unwilling to invest in long-term strategies designed to foster positive reputation among stakeholders, because their focus is centered more on short-term survival. Firms find it difficult to market their reputation beyond their current customers because they perceive a lack of understanding/interest among broader stakeholder groups.

For event planning businesses, Campiranon (2005) recommended that to strengthen their corporate reputations, companies should build their image on reliability, credibility, trustworthiness and responsibility. This recommendation is based on Fombrun's (1996) reputation drivers, which can be used by firms that depend heavily on their reputations to attract customers.

For the services sector, Walsh et al. (2009) suggested that to achieve a good corporate reputation, firms must continuously deliver customer satisfaction. That is, rather than focusing on the facets of corporate reputation, such as being a good employer, ensuring a financially sound company, and engaging in social responsibility, service companies should pay more attention to customer orientation and product and service quality because of these factors' direct impact on customer satisfaction. Moreover, because customers often form their sense of a firm's reputation by interacting with its employees, service firms should ensure that employees are empowered to address all customer needs, which in turn leads to customer satisfaction and trust.

However, Walsh et al. (2009) also suggested that if the firm has a good reputation, it should invest in customer loyalty as well. However, when a firm has a poor reputation, it should attempt to increase customer satisfaction through service and further explore the reasons customers are dissatisfied. Moreover, when managers understand the nature of their firms' reputation, they can determine whether to initiate dedicated word-of-mouth campaigns to sustain other ongoing promotional activities or new product launches.

Similarly, Dickinson-Delaporte et al. (2010) argued that to enhance corporate reputation, social marketers should orient themselves to their stakeholders and conduct ongoing research to identify their goals, their biases, and the cues they use to inform judgments about the legitimacy of the firm's actions. As part of this strategy, firms should receive or allow stakeholder dialogue by developing a web forum, which can serve to communicate the firm's situation and reinforce the firm's positioning. Moreover, Dickinson-Delaporte et al. (2010) suggested that firms should reinforce their communication strategy by using multiple perceptions of the firms' actions to craft an ambiguous position in the marketplace and to develop multiple messages to their stakeholders. Walsh et al. (2009) also suggested that newly deregulated energy suppliers should try to achieve a good reputation quickly because doing so can become a market-entry barrier for competitors that might want to enter the newly opened market.

On the one hand, Srivoravilai et al.'s (2011) study offers practical guidelines for managers in especially highly institutionalised companies (e.g., private hospitals) in

terms of enhancing their reputation and commitment to value through the achievement of organisational legitimacy and the use of impression management tactics.

## **2.3 The brand and the corporate reputation**

According to some previous studies, a firm's reputation is revealed to have an effect on the brand advertisement (Goldberg and Hartwick, 1990). Umbrella branding plays a role at the corporate level (Berry et al., 1988). Sometimes the company name is regarded as the brand name, particularly with service firms (Low and Blois, 2002). Also, a firm's corporate identity, its corporate reputation, and the corporate brands are examined by Schultz et al. (2000) about the inter-relationship between the three constructs.

On the other hand, the corporate reputation management process that Gotsi and Wilson (2001) proposed shows a two-step process: First, a firm must align its internal communication with its brand values, and second, the firm must align its human resource management practices with its brand values. Gotsi and Wilson (2001) also illustrated the essential role of employees in the corporate reputation management process. Their study presents ways that organisations can encourage commitment, enthusiasm and consistent employee behaviour in delivering brand values (Gotsi and Wilson, 2001). Similarly, Fombrun (1996) argued that what accountants call 'goodwill' is similar to what marketers term 'brand equity'.

According to Hatch and Schultz (2003, p. 1041),

*“Among the changes that businesses make as they move toward globalisation is a shift in marketing emphasis from product brands to corporate branding (e.g. Kapferer, 1992; Dowling, 1993, 2001; Balmer, 1995, 2001a; Aaker, 1996; Ind, 1997; Schmitt and Simonsen, 1997; de Chernatony, 1999; Aaker and Joachimsthaler, 2000; Keller, 2000; Knox et al., 2000; Olins, 2000; Harris and de Chernatony, 2001; Hatch and Schultz, 2001). This is usually ascribed to the difficulties of maintaining credible product differentiation in the face*

*of imitation and homogenisation of products and services, and the fragmentation of traditional market segments that occurs as customers become more sophisticated and markets more complex. In an era when companies can no longer base their strategy on a predictable market or a stable preferential product range, the ground rules for competition have changed. Differentiation requires positioning, not products, but the whole corporation. Accordingly, the values and emotions symbolised by the organisation become key elements of differentiation strategies, and the corporation itself moves centre stage.”*

Gotsi and Wilson (2001) suggested that a firm’s corporate reputation is affected by the actions of every business unit, department and employee that comes into contact with the stakeholders. Gotsi and Wilson (2001) explore what a firm’s management actions are required to be if employees are to support and enhance a firm’s corporate reputation. How employees can be directed or encouraged to “live the brand” is an area which has received relatively limited coverage (Gotsi and Wilson, 2001).

### **2.3.1 The uses of corporate reputation and brand image strategy**

First of all, it is summarised from the previous researchers (Gardner and Levy, 1955; Newman, 1957; Herzog, 1963; Levy, 1978; Bullmore, 1984; Runyon and Stewart, 1987) that brand image is defined as a totality of a consumer’s perceptions about a product’s attributes. The perceptions of a brand that are reflected in the brand associations that exist in the minds of consumers (Newman, 1957; Herzog, 1963). However, a brand image not only reflects a perceptual phenomenon of the customers affected by the firm’s communication activities alone (Stern et al., 2001) but also represents the understanding consumers derive from the total set of brand-related activities engaged in by the firm (Park et al., 1986). In other words, brand image is the collection of attributes and associations that consumers connect with a brand name (Biel, 1993).



Customer brand choice is based on emotional and intuitive feelings about brands, their images and meanings for consumers and how these brands satisfy consumer needs and seem to fit into the consumer's relationship with his/her world (Meenaghan, 1995). Therefore, customer buying behaviour can be reliably predicted when while a distinguished a distinctive segment is formed (van Raaij and Verhallen, 1994). Segmentation acts as a counterpart for product differentiation and positioning (Van Raaij and Verhallen, 1994). However, positioning concepts are developed, selected and communicated for these target segmented stakeholders (Kotler, 2003). In this section, developing a brand image strategy by considering the uses of corporate reputation will be investigated through answers to a research question.

Efforts have been made to investigate the strategic use of brand image by reviewing the works of the following scholars: Park et al. (1986), Debevec and Iyer (1986), Swartz (1983), Roth (1992) and Roth (1995). Consumer needs represent an important factor influencing the selection of a particular brand concept. Brand image strategy is first proposed by Park et al. (1986) in brand concept management (BCM), which is derived from segmenting and positioning in marketing strategies. In practice, it is a genuine response for a firm to differentiate its products in order to respond to differing consumer needs (Samuelson, 1976). Thereafter, companies apply different brand image strategies (in terms of segmentation and positioning) to satisfy and fulfil the various needs of their consumers (Ries and Trout, 1969; Park et al., 1986; Trout and Rivkin, 1996; Nandan, 2005; Kotler, 2006). For instance, segmentation is achieved by advertising, which is the most influential way to position a brand in a marketing campaign (Galbraith, 1967). When considering a well-structured and long-term marketing process plan as stated above, we sense that the brand image is constructed based on consumer needs, perceptions and its relationships with the producing company (Keller, 1993; 2000; Roth, 1995).

According to earlier literature, brand image can be examined through investigating three types of needs that it satisfies: functional needs, symbolic needs and experiential needs (Park et al., 1986; Bhat and Reddy, 1998; Roth, 1995). First of all, "functional needs" are defined as those that motivate the search for products intended to solve consumption-related problems (e.g. solve a current problem, prevent a potential

problem, resolve conflict and restructure a frustrating situation; see Fennell, 1978). A brand with a functional concept is defined as one designed to satisfy externally generated consumption needs. Second, “symbolic needs” are defined as desires for products that fulfil internally generated needs for self-enhancement, role position, group membership or ego-identification. Finally, the most complex type is “experiential needs”. It is complex because experiential needs should not neglect the first two types but integrate the feelings of the customer towards to the company. According to the literature, experiential needs are defined as desires for products that provide sensory pleasure, variety and/or cognitive stimulation. Work on variety seeking (McAlister and Pessemier 1982), consumer aesthetics and experiential consumption (Holbrook and Hirschman, 1982; Holbrook et al., 1984) illustrate the importance of experiential needs in consumption. A brand with an experiential concept is designed to fulfil these internally generated needs for stimulation and/or variety.

## **2.4 Brand image strategy: segmentation, differentiation and positioning**

A firm’s reputation not only enhances the value of corporate image (Fombrun, 1996) but also has an effect on the brand advertising (Goldberg and Hartwick, 1990). This issue is especially important in the generic product market because the threat of the brand name becoming used in a generic fashion is always present, and so a company must take steps to try to avoid this happening. These decisions or strategies involve identifying the problem and then determining what action should be taken by the company (Low and Blois, 2002). Moreover, Low and Blois (2002) argue that the issue of branding in industrial markets has received little attention relative to that accorded to it in consumer markets. On the other hand, Berry et al. (1988) suggest that umbrella branding plays a role at the corporate level. Also, sometimes the company name is regarded as the brand name, particularly with service firms (Low and Blois, 2002).

However, according to Low and Blois (2002), reaching the appropriate decision regarding a company’s response to the use of its brand name in a generic manner is

difficult. Inevitably, there are a number of assumptions and “guesstimates” that have to be made. Low and Blois (2002, p. 391) argued further:

*“[E]ven a large firm, which might have the resources to carry out a thorough assessment of the costs associated with each policy and the likelihood of their being successful, will still have to reach a decision on the basis of a high degree of uncertainty. For a small firm with limited resources, the decision will necessarily be based almost entirely on managerial judgement for the cost of even the simple market survey may be too great for it to be undertaken.”*

Therefore, in the consumer markets, on either the product or brand level, the author assumes the branding strategy is related to the corporate strategy or corporate decisions. Based on the arguments above, the management of corporate reputation not only regenerates a brand (Gotsi and Wilson, 2001), a firm’s reputation also has an impact on its brand image indirectly (Biel, 1993; Christensen and Askegaard, 2001).

It is commonly agreed by both academic scholars and practitioners that a brand image (the perception by customers) becomes strongly related to a brand’s segmentation and positioning strategy while the initial brand concept is being formed (e.g. Leisen, 2001; Haley, 1968; Shank and Langmeyer, 1994; Hsieh, 2002). Therefore, a firm’s brand manager creates brand strategies targeting their products to a particular group of customers, but needing to effectively operate for each of the firm’s business units.

For example, Anderson and Jolson (1980) showed that the wording in advertising influences product-market segmentation. Thus, it is important to understand the strategy orientation when a brand makes a coherent advertising decision to match the corporate strategy. Moreover, as Dawar and Parker (1994) suggested, marketers use retailer reputation to signal product quality. Different quality level perceived by consumers from the degree of signal use should differ significantly in segmentating a product across countries. Therefore, marketers should determine whether to segment or adapt the marketing mix depending on the specific culture.

Although corporate reputation can enhance a firm’s brand segmentation strategy, Brown et al. (1989) noted that for marketing effectiveness, firms should develop strategies for markets, not products. Brown et al. suggested that market selection comes first, even

when a product geared for that market already exists, and that reputation is one of the factors that firms can use to distinguish the different market segments.

Similarly, in service firms, Walsh et al. (2006) noted that when determining which and how many segments to target, firms should focus on only one group—namely customers—and attempt to use their corporate reputation to distinguish the markets further. Walsh et al. conducted a hierarchical cluster analysis with a sample of more than 500 consumers and discovered three groups of consumers that have specific reputation-related attitudes towards the firms they rated. These attitudes include ‘reputation admirers’, ‘reputation ambivalents’ and ‘reputation criticals’, which firms can use to tailor their segment-specific marketing mixes.

Moreover, the brand has a strong relationship with its product. From the beginning, when the brand concept is proposed, there is a never-ending discussion regarding a brand and the product (e.g. Gardner and Levy, 1955). A consistent product quality perceived by the customer can strongly affect a firm’s reputation. Therefore, product quality has been seen as an important factor by previous scholars (e.g. Steenkamp, 1989) that have a huge impact on the perception of consumers. In discussing the relationship between perceived quality and brand image, Zeithaml (1988) argues that “extrinsic cues are product related, but not part of the physical product itself. By definition, they are external to the product, and changing them does not change the physical product. Price, brand name, level of advertising, and warranty are examples of extrinsic cues to quality” (p.6). However, when the extrinsic cues of a product are changed, the physical product is not changed (Kirmani and Zeithaml, 1993).

On the other hand, Kirmani and Zeithaml (1993) cite the effects of concrete attributes on perceived quality. Also Aaker and Biel (1993) assert that brand image includes perceptions of quality, value and attitude, as well as brand associations and feelings. It is more multidimensional than perceived quality and, consequently, has a higher level of abstraction. A large amount of literature regarding the impact of intrinsic and extrinsic cues on perceived quality exists. According to Kirmani and Zeithaml (1993), the perceived quality is formed by advertising. The advertising, on a concrete level and a lower level, is categorized by the customer’s different perceptual level of abstractions.

Midlevel perceptual abstractions are defined as covering such things as style and performance. The increasing level of abstraction is consistent with other conceptualizations of a product's attributes (e.g. Olson and Reynolds, 1983; Geistfeld et al., 1997) known as "means-end chains". Kirmani and Zeithaml (1993, p. 147) say that "the intrinsic cues refer to concrete, physical properties of the product (i.e. lower level specific brand beliefs). These intrinsic attributes cannot be changed without altering the nature of the product itself and are consumed as the product is consumed (Olson and Jacoby, 1972; Olson, 1977; 1978)".

However, in Kirmani and Zeithaml's (1993) study, there are inter-reactions within the three constructs of advertising, perceived quality and brand image. The extrinsic cues in Kirmani and Zeithaml's (1993) categorization of the perceived quality belong to a firm's branding strategy decisions. This is strongly related to the brand manager's decisions regarding a corporate product and the brand image they want to build. Therefore, The statement above suggests that a firm's corporate reputation also belongs to a product's abstraction attributes, and the reputation of a firm is related to a firm's brand image.

A product's intrinsic and extrinsic cues also have some impact on price and the target groups. It is difficult for the branding team to directly convey a product's quality to potential customers, but sometimes setting a high price can convey this. This is because concrete intrinsic attributes differ widely across products, as do the attributes consumers use to infer quality. Pincus and Waters (1975) verified intrinsic cues as well as the price of ballpoint pens and found that intrinsic cues accounted for most of the variance in product quality ratings. Kirmani and Zeithaml (1993) investigated the different product attributes and their advertisement effects on a product's image perception. For example, the attributes that signal quality in fruit juice (colour, presence of pulp) are the concrete attributes, indicating that higher-level abstract dimensions of quality can be generalised to categories of products (Zeithaml, 1988).

On the other hand, Garvin (1987) proposed that product quality can be captured in eight dimensions: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality (i.e. image). Moreover, in describing the way

consumers compare non-comparable alternatives. Johnson (1984) posited that consumers represent the attributes in memory at abstract levels. Similarly, Olson (1978) discussed “descriptive beliefs”, which involve a restatement of the original information into more abstract terms (e.g. “accelerates from 0 to 60 mph in 5 seconds” generates the belief “high performance”). Olson (1978) suggested that consumers may use informational cues (e.g. intrinsic and extrinsic cues) to develop descriptive beliefs about products. These beliefs, in turn, could affect evaluation and choice.

Parasuraman et al. (1985) found consistent dimensions of perceived quality across seven service industries. These dimensions include: (a) reliability, (b) responsiveness, (c) assurance, (d) empathy and (e) tangibles. This study tried to measure dimensions of quality. However, in another study, Brucks and Zeithaml (1991) contend on the basis of exploratory research that six abstract dimensions could be generalised across categories of durable goods: (a) ease of use, (b) functionality, (c) performance, (d) durability, (d) serviceability and (f) prestige. For instance, in the product category of beer, Jacoby et al. (1971) found that both brand name and actual composition characteristics were more important determinants of product quality perceptions than price.

On the other hand, these abstract dimensions of quality also indicated the price that can be requested from consumers. Price was important in judging the style dimension. For example, Valenzie and Andrews (1971) found that actual tasting of margarine samples had a stronger influence on taste perceptions (a quality dimension) than the price. Etgar and Malhotra (1981) varied both intrinsic (sole, colour, upper) and extrinsic (place of purchase, price) attributes of running shoes and revealed that both types of cues were important in determining product quality. Respondents in these studies used different extrinsic and intrinsic cues for different dimensions of quality (e.g. comfort, durability and style).

Extrinsic cues other than price also affect quality perceptions. As mentioned earlier, brand name, product warranties (Bearden and Shimp, 1982; Boulding and Kirmani, 1991) and advertising costs (Kirmani and Wright, 1989; Kirmani, 1990) have also been considered and documented as a signal of quality. For example, a brand name can represent a cluster of intrinsic attributes. However, intrinsic and extrinsic attributes can

affect each other. Intrinsic cues (such as size of a stereo speaker) can lead to an inference about price (an extrinsic attribute) of the speakers. Conversely, the price of a product can lead the consumer to a lower level belief about the concrete aspects of the product. A £5 price for a candy bar, for instance, would likely signal 'large size'.

Extrinsic cues can affect each other as well. For instance, advertisement expenditures can affect the perceived price of the product (Kirmani, 1990), and a high warranty on a product is likely to lead to the inference that the product carries a high price, despite the importance of extrinsic cues in forming quality cue. However, when advertisement content was informative (i.e. comfort or durability of an athletic shoe), subjects relied on advertising expenditures as a quality cue. However, when ad content was informative (i.e. showed a photo of a shoe) about a quality dimension (style), subjects did not rely on advertising expenditures as a quality cue. Boulding and Kirmani (1991) found that an extrinsic cue in an ad (i.e. information about product warranty) affected durability perceptions although the advertisement was informative about intrinsic product cues.

Several studies have linked the notion of differentiation to a firm's corporate reputation. Ghose et al. (2006) suggested that several dimensions of reputation, including problem response, customer service, packaging, delivery and product-specific comments, present the principle points that customers look for when buying from a given seller. These dimensions not only provide a basis on which a seller can improve but also help the seller differentiate itself from the competition.

In addition, according to Brammer and Pavelin (2006), corporate reputation can be augmented by activities that also are closely related to the vertical differentiation of products, such as technological advancement and the cultivation of a strong brand image. However, a good corporate reputation can also help differentiate the brand (Fan, 2005). Aitchison's (1999) Emotional Selling Proposition provides brand advertisers with a powerful tool to manipulate consumers' emotions to achieve brand differentiation. According to traditional knowledge, the crucial goal of branding is to situate a favourable position in the minds of consumers, one that is distinct from

competitors (Ries and Trout, 1982). This target can easily be achieved when a firm builds its own reputation.

Furthermore, Gotsi and Wilson (2001) argued that organisations are increasingly recognising customers as their most important assets for building a favourable corporate reputation. Through respondent interviews of the importance of employees in corporate reputation management, Gotsi and Wilson emphasised that employees, as one factor to enhance a firm's corporate reputation, can help differentiate an organisation from its rivals because consumers evaluate the corporate reputation behind the brand and products presented to them.

## **2.5 The development and conceptualization of the research problem and gap**

The review of theoretical literature (above) has led to the development of an analytical framework which presents a cohesive insight into the uses of corporate reputation. Importantly, the review of works from a variety of perspectives (i.e. public relations, marketing, management, economic, sociological, finance and accounting), together with the development of the eleven syntheses (see Table 2.2,) indicate that work on corporate reputation has focused principally on a number of issues. These include the use of corporate reputation and corporate social and financial performance (Sobol and Farrell, 1988; McGuire et al., 1990; Herremans et al., 1993; Fombrun, 1996; Deephouse, 1997; Brown, 1997; Roberts and Dowling, 1997; Roberts; Caruana, 1997; Srivastava et al., 1997; Kotha et al., 2001; and Dowling, 2002; Sabate and Puente, 2003) and the use of corporate reputation and its relationship with company value and asset (Barney, 1986; Dierickx and Cool, 1989; Fombrun and Shanley, 1990; Gregory, 1991; Marconi, 1991; Smith, 1994; Fortune, 1995; Okano et al., 1999; Shkolnikov et al., 2004; Moerman and Laan, 2006). Others include the use of corporate reputation and competitive advantage (Worcester, 1986; Fombrun and Shanley, 1990; Maathuis, 1993; Greyser, 1996; Fombrun and van Riel, 2004), the use of corporate strategy (Cornell and Shapiro, 1987; Weigelt and Camerer, 1988) and the use of corporate reputation and communication (Lerbinger, 1965; Grunig et al., 1992). There are also a number of works that mention



the use of corporate reputation in customer purchase decision-making (Chibnall, 1977; Hall et al., 1978; McNair, 1996; Fombrun and Shanley, 1990; Landon and Smith, 1997; Sabate and Puente, 2003; L'Etang, 2006).

However, it appears that there is limited work highlighting the relationship between the uses of corporate reputation on the one hand and the development of brand image strategy and corporate reputation on the other. In fact, some of the works of Okano et al., 1999; Michell et al., 2001; Davies and Chun, 2002) that have attempted to address the relationship between these constructs appear to have done so without any sound empirical evidence explicating the relationship between these constructs.

This problem, which has been developed from the review of conceptual literature, will be the core focus of this thesis. Based on this assertion therefore, the question that will be addressed throughout this thesis shall be: *how do (Taiwanese pharmaceutical) companies use their corporate reputations to develop their brand segmentation and positioning strategy?* This question, which is constructed as the key focus of this study, will be addressed conceptually in chapter three.

## **2.6 Summary**

This chapter reviewed existing literature as it concerns the uses of corporate reputation. In addressing the course of this objective, an outline (see public relations, marketing, management, economic, sociological, finance and accounting) highlighting the various perspectives on the uses of corporate reputation was developed. Thus a framework of synthesis, highlighting eleven overlaps or integrants running through the public relations, marketing, management, economic, sociological, finance and accounting perspectives on the uses of corporate reputation was developed.

Moreover, previous studies regarding the corporate reputation and the brand are reviewed. Links between a firm's reputation and its brand strategy are revealed from previous studies. Consequently, the review of these theoretical perspectives encouraged the development and conceptualisation of a research problem highlighting the gap in

literature together with the research question (RQ) of this study: *how do (Taiwanese pharmaceutical) companies use their corporate reputation to develop brand image strategy?* The development of this question sets the scene for this research.

The next stage of this study will be to examine how the question stated above can be answered conceptually and empirically in the following chapters. Consequently, the objective of the next chapter will be to (in a broader sense) develop a conceptual framework that attempts to offer an answer or answers to the theoretical question being investigated in this study.

# CHAPTER THREE: CONCEPTUAL FRAMEWORK AND THE DEVELOPMENT OF HYPOTHESES

## 3.1 Introduction

The previous chapters reviewed existing works on the uses of corporate reputation from six different perspectives (i.e. public relations,-marketing, management, economic, sociological, finance and accounting) under which the use of corporate reputation has been conceptualised. Although there were differences between the disciplines, three main uses emerged: value creation, strategic resources and corporate communication. The literature review also identified a research gap by showing that there has been little research about how these three main functions (value creation, strategic resources and corporate communication) impact on a company's brand positioning strategy. Therefore, the research question (RQ) is: *how do (Taiwanese pharmaceutical) companies use their corporate reputation to develop a brand image strategy?*

The aim of this chapter is to explain the research hypothesis. First, the research question will be constructed theoretically, and then a conceptual model, which begins with three antecedents for the uses of corporate reputation and illustrates simultaneously the outcomes of the uses of corporate reputation, will be created.

Here the main construct is the uses of corporate reputation. This construct has three dimensions: value creation, strategic resources and corporate communication. Each of these three dimensions includes several items. First, the uses of corporate reputation as a value-creation tool include promising good quality products and service to customers, reducing transaction costs and sending signals to its customers. Second, the uses of a firm's corporate reputation as a strategic resource include use as a competitive advantage, as a strategic value or resource and developing good financial performance. Third, the uses of corporate reputation as a communication tool include shaping the perception of shareholders and stakeholders, influencing consumer choices and building

a relationship between the firm and its customers. The following section will depict the proposed research conceptual framework and a number of hypotheses that will be further investigated and tested.

### 3.2 Research framework and hypotheses development

In order to guide this study, the key constructs need to be explained. Based on the conclusion of the reviewed literature and research question, three antecedents (see Table 3.1) pertaining to value creation, influencing competitor’s actions and a development the relationship with its stakeholders are hypothesised to be related to brand image strategy. Brand image strategy in the research model is utilised as an output of the uses of corporate reputation.

Table 3.1: Twelve antecedents pertaining to three dimensions of the uses of corporate reputation

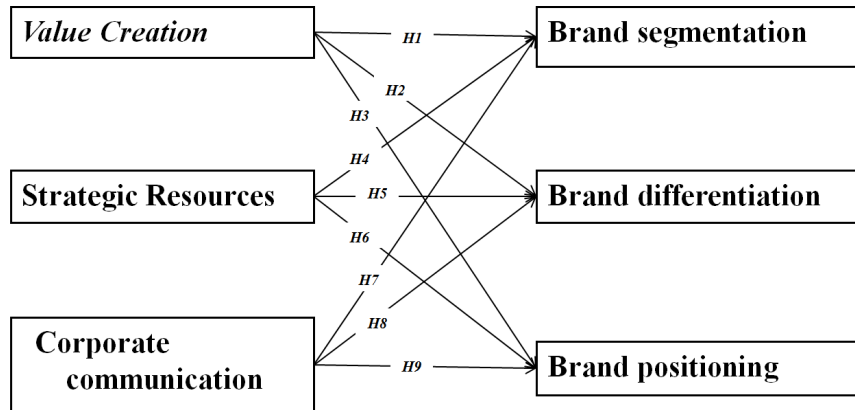
<b>Value creation:</b>	creating value
	promising good quality products and service to customers
	reduce transaction costs
	is used as a signal to customers
<b>Strategic resources:</b>	influencing competitor’s actions/strategies
	using as a competitive advantage
	is used as a strategic value or resource
	develop good financial performance
<b>Communication:</b>	developing the relationship with its stakeholders
	shaping the perception of shareholders and stakeholders
	influence consumer choices
	build a relationship between the firm and the customers

Source: Summarized by the author

In this research a framework (Figure 3.1.), which is based primarily on the three syntheses of the uses of corporate reputation, is examined. As described in the literature review, this framework has been developed by summarizing and synthesising the works of a number of scholars (such as Fombrun and Shanley, 1990; Sabate and Puente, 2003; Shkolnikov et al., 2004; L’Etang, 2006) who have previously studied the uses of corporate reputation. The various uses of corporate reputation identified by the scholars (shown in Figure 3.1) were grouped into three categories. This synthesis of the uses of

corporate reputation has been chosen because its importance is supported by contemporary theoretical developments. In the following chapter, explanations of the relationship between the constructs will be presented.

Figure 3.1: Research conceptual framework



Resource: Developed by the author

### 3.3 The uses of corporate reputation

The aim of this research is to find out the uses of corporate reputation in the strategic branding decision. This section explains the dimensions of the uses of corporate reputation separately.

From the review of the literature, three dimensions of the uses of corporate reputation may be summarised as value creation, strategic resources and corporate communication. These dimensions of corporate reputation will help the firm to develop its brand strategy dimensions. These dimensions will be discussed in the following section.

### 3.4 Consequences of the uses of corporate reputation

From the review of literature, scholars belonging to the marketing perspective declared that a good corporate reputation generates good returns on a firm's investment over time

(Fombrun, 1996; Caruana, 1997) and affects corporate performance (Srivastava et al., 1997). Caruana (1997) suggested that the concept of corporate reputation and improving its measurement have had beneficial consequences for firms. It has also been noticed that it has positive impacts on factors such as a customer's purchase intentions (Yoon et al., 1993), the attitude of buyers to salespersons and products (Brown, 1995) and the perceived quality of products and services (Rao, 1994).

An important study regarding the implications of corporate reputation was carried out by Caruana (1997); a summary of the studies on the consequences of corporate reputation is presented in Table 3.2.

Table 3.2: Consequences of corporate reputation

<b>Consequence of corporate reputation</b>	<b>Author</b>
<b>intention to purchase a service</b>	Yoon et al., 1993
<b>the attitude of buyers to salespersons and products</b>	Brown, 1995
<b>the perceived quality and deterring competitor entry when a tough stance is adopted</b>	Weigelt and Camerer, 1988
<b>contributing to performance differences between firms</b>	Rao, 1994
<b>attracting investors, lowering cost of capital and enhancing competitive ability of firms</b>	Fombrun and Shanley, 1990
<b>financial performance</b>	Hall, 1993; Eberl and Schwaiger, 2005
<b>enabling strong organisation identification by employees and "inter-organisational cooperation or citizenship" behaviour</b>	Dutton et al., 1994

Source: Template provided by Caruana (1997), developed by the author.

Corporate reputation can help to deter competitors from entering markets (Weigelt and Camerer, 1988) and contribute to performance differences between firms (Rao, 1994). Therefore, increased understanding of corporate reputation helps to attract investors, lower the cost of capital and enhance the competitive performance of firms (Fombrun and Shanley, 1990). The reasons above imply that a firm's reputation can help to improve the level of organisational identification of employees with a firm and enhance 'inter-organisational cooperation or citizenship behaviour' (Dutton et al., 1994).

According to Table 3.2, a firm's financial performance is affected by corporate reputation (Caruana, 1997). Several accounting scholars also affirm that a firm's corporate reputation enables firms to profit from a variety of benefits (Herremans et al., 1993). Scholars within the economic perspective observed that a firm's corporate reputation has an impact on financial performance (Sobol and Farrell, 1988; Sabate and Puente, 2003). Sharing similar thoughts, some management scholars indicate that a good corporate reputation is used by firms to enhance corporate performance (Deephouse, 1997; Brown, 1997; Roberts and Dowling, 1997) as well as financial performance (McGuire et al., 1990; Kotha et al., 2001; Roberts and Dowling, 2002).

For example, concerned with elucidating the effect of corporate reputation on financial performance, Eberl and Schwaiger (2005) concluded that two kinds of phenomena—cognitive and affective—constitute corporate reputation. On this basis, they argued that corporate reputation is an attitudinal construct that exists and operates in the minds of the general public. Thus, they argue that it is vital for reputation management to focus on communication with the relevant stakeholder groups rather than those internal to the company. In other words, although external agents view financially successful companies favourably, they also tend to be risk averse. That is, companies with a good reputation gain more trust from the external agents or their direct customers, thus leading to more business or better performance.

Based on the efforts of previous scholars on the uses of corporate reputation in different perspectives, good uses of a firm's corporate reputation will certainly lead to a good financial performance. This proven causal relationship shows the huge impact of a corporate reputation on a firm's brand image strategy, which can also be seen as an outcome of building a good corporate reputation.

#### **3.4.1 The uses of corporate reputation and brand image strategy**

As discussed in chapter 2, there is a strong causal relationship between a firm's image and its brand image. Much literature has been concerned with investigating whether corporate reputation has an inevitable impact on brand image because it can influence

the perception of customers. Therefore, in this section, we are going to investigate the impact of not corporate reputation on brand image strategy-setting among brand manager decision makers. The relationship between corporate reputation and a firm's brand image has not been comprehensively defined in previous literature. Nevertheless, when considering the three dimensions of the uses of corporate reputation mentioned above, brand managers' views will be important in brand image strategy decisions. In this section, the brand image strategy-setting (when brand managers lay out their strategies) will be investigated in connection with the uses of corporate reputation.

Based on the previous conceptualization of the use of corporate reputation, the more significant three schools of thought emerged involving these uses of corporate reputation: value creation, strategic resources and corporate communication. Following the argument of brand image strategy above, it is important to discuss how the three dimensions of the uses of corporate reputation have an impact on brand managers' strategy-setting. The next section, will review earlier literature examining the relationship uses between each use of corporate reputation and the setting of brand image strategy by brand managers.

#### **3.4.1.1 Value creation: value creation and brand image strategy**

The value provided by a firm to a customer is always judged during the customer purchasing process. Therefore, the value creation ability of a firm is deeply related to the its relationship with its customers and influences the perception of its customers. In essence, the resource-based theory (Grant, 1991; Peteraf, 1993; Barney and Zajac, 1994; Conner and Prahalad, 1996) provides a general way for a firm to find its core value. The resource-based theory suggested that a firm tries to achieve superior returns by exploiting internal resources and capabilities. Corporate reputation is commonly used by a firm as a strategic resource (Roberts and Dowling, 2002) or as a tool for the development of organisational value (Smith, 1994). Since corporate reputation cannot be and bought and is not easy to imitate or substitute, it is therefore regarded as an asset of a firm (Dierickx and Cool, 1989; Barney, 1986).

In finance and accounting disciplines, for stakeholders, corporate reputation is presented and seen as a corporate valuable (Okano et al., 1999; Moerman and Laan, 2006) or used



as an intangible asset that can create value in the future (Dierickx and Cool, 1989; DTI, 2001; Dolphin, 2004; Shkolnikov et al., 2004). Therefore, it is used to increase the value of returns to shareholders (Rose and Thomsen, 2004) and to have a positive influence on firm value (Fombrun and Shanley, 1990; Gregory, 1991; Marconi, 1991; Fortune, 1995).

In addition, according to some other researchers (e.g. Herbig et al., 1994; Devine and Halpern, 2001), corporate reputation is used as a tool for promising good quality products and service to customers in marketing. A firm's corporate reputation is used as a promise for good brand quality and good service levels (Devine and Halpern, 2001) since positive reputational signals about the quality of a company's products or services can enhance credibility (Herbig et al., 1994). Therefore, it is agreed by economic scholars that a good corporate reputation encourages a firm to produce top-quality products and services (Nelson, 1970; de Angelo, 1981; Wilson, 1983; Rogerson, 1983; Dranove, 1983; Eichenseher and Shields, 1985; Milgrom and Roberts, 1986; Beatty and Ritter, 1986).

Marketing scholars argued that a strong corporate reputation enhances the generation of transaction costs (Caruana et al., 2004). In the same vein, Shapiro (1983) and Eberl and Schwaiger (2005) also agreed that corporate reputation reduces transaction costs together with beneficial financial and non-financial outcomes.

A review of the value-based theory will be conducted in order to better understand the intentions and mind-interaction in consumers when they are trying to evaluate the benefits that can be derived from the brand or the product. Moreover, and consequently, by reviewing a customer value-based theory of the firm, it is easier for researchers to understand a firm's marketing strategy (Slater, 1997). Such a focus is understandable for marketing strategy nowadays because market forces predominantly drive strategic decision-making (Cravens, 1998).

Schwartz and Bilsky (1987) claim that values are cognitive representations of universal human requirements: biological needs, social interactional requirements and social institutional demands on the individual. Subsequently, some scholars – Parasuraman

(1997) and Woodruff (1997) – proposed that a thorough understanding is needed to clarify the complexities of customer value perceptions, the processes for customer value monitoring and the processes for leveraging the firm knowledge. These help to validate the strategy the managers follow by creating, developing, and delivering value to the customers (Piercy, 1998; Flint, 2004).

Following from the above, human values have been increasingly used as a basis for market segmentation (Kamakura and Novak, 1992). Similarly, Flint (2004) also argues that customer valued-based strategy resides in segmentation, branding, positioning, integrated marketing communication, professional selling, advertising, pricing, product development, and distribution/logistics strategies.

From the arguments above, the value system has been used by marketers to explain phenomena such as consumer behaviour (Henry, 1976; Vinson and Munson, 1976; Pitts and Woodside, 1983) as well as strategic marketing (Flint, 2004). As has been stressed, that creating a value-based strategy relating to customers gains a reputation for a firm, we confirmed that a firm with a good corporate reputation as an intangible asset can also benefit the firm by reducing transaction costs, indirectly creating a value for the firm.

Given the focus of this study on the relationship between value creation and branding strategy, it is also proposed that:

*H1: Value creation as a dimension of the uses of corporate reputation has a positive impact on a firm's brand segmentation strategy.*

*H2: Value creation as a dimension of the uses of corporate reputation has a positive impact on a firm's brand differentiation strategy.*

*H3: Value creation as a dimension of the uses of corporate reputation has a positive impact on a firm's brand positioning strategy.*

### **3.4.1.2 Strategic resource: influencing a competitor's actions/strategies and brand image strategy**

Strong financial performance generally signals an effective corporate strategy. It helps a firm to establish or maintain a good reputation (Roberts and Dowling, 2002; Sabate and Puente, 2003). This confirms the notion that corporate reputation is an undervalued strategic asset (Smythe et al., 1992) because it gives the stakeholders an idea about a firm's financial stability background and shows which direction the firm is heading to. In comparison with other more tangible assets, it is rarely the subject of investment (Weigelt and Camerer, 1988).

In sociology, corporate reputation is commonly used as a defence strategy to ward off competitors (Cornell and Shapiro, 1987). Thus, it is argued in economics that corporate reputation is found to be a strategic resource (Weigelt and Camerer, 1988). In addition, Roberts and Dowling (2002) contended from a management perspective that corporate reputation, as used among business organisations, has a strategic value. These arguments above are based on the fact that corporate reputation is not easy to build nor easy to replicate (Barney, 1986; Dierickx and Cool, 1989). It takes some time for new entrants to a competitive market to develop a reputation that is comparable with those competing in the market before it (Hall, 1993).

Therefore, corporate reputation may well result in gaining a competitive advantage for an organisation. According to the literature, it is commonly agreed within marketing, accounting, economics and management scholars that firms deploy strategies by using their corporate reputation to effectively differentiate them from competitors (Stigler, 1962; Caves and Porter, 1977; Klein and Leffler, 1981; Wilson, 1985; Beatty and Ritter, 1986; Milgrom and Roberts, 1986; Hall, 1992; Day, 1994; McMillan and Joshi, 1997) and to create a distinctive position in the mind of stakeholders (Fombrun and van Riel, 2004) in order to attain competitive advantage (Worcester, 1986; Fombrun and Shanley, 1990; Maathuis, 1993; Greyser, 1996).

Corporate reputation is seen by economic and management scholars (Kreps and Wilson, 1982; Shapiro, 1989) and as a signal-laden phenomenon that can be used to forecast the potential behaviour of a firm and also by management scholars (Waddock, 2000).

In Milewicz and Herbig's (1994) study, they evaluated brand extension by building a brand extension reputation model. The model represents consumer cognitive processes, showing that corporate reputation is commonly used to highlight and signify (Herbig and Milewicz, 1993) a firm's beliefs, attitudes and intentions to market participants and that is often deployed by marketers as a useful signal that gives stakeholders the needed insight into the future of a firm (Fombrun, 2002).

For example, for banks and other financial institutions, the expression of corporate reputation is used as a signal that enables key resource providers to interpret a company's initiatives and assess its ability to deliver value outcomes from the firm's past actions. Therefore, in management studies, corporate reputation is used on many occasions to signify an organisation's perceived capacity to meet their stakeholders' expectations (Waddock, 2000).

In this part, we start to review the resource-based view (RBV) of a firm. This view has been extensively summarised in contemporary strategy literature (Wernerfelt, 1984, 1995; Grant, 2010; Mahoney, 1995).

A definition and classification scheme of resources has been suggested. Barney (1991) defined resources as a bundle of assets, capabilities, organisational processes, firm attributes, information and knowledge. These resources can be broadly categorized as tangible and intangible and consist of financial, physical, legal, human, organisational, relational, technological and informational assets, skills and competencies.

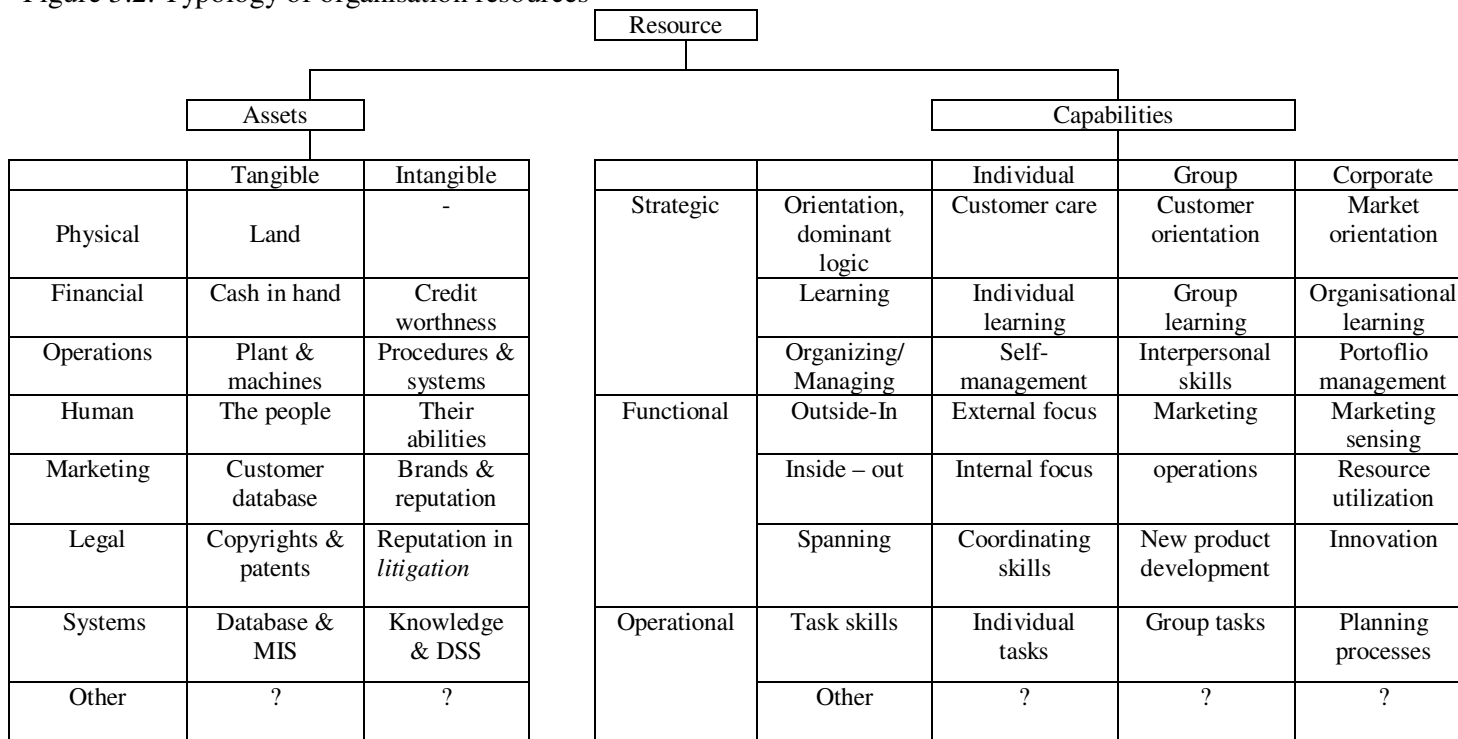
Resource-based scholars suggested that certain assets (tangible or intangible) with certain characteristics will lead to sustainable competitive advantage (Hooley et al., 1998). Resource-based theorists suggest that for a strategy to be sustainable it needs to be embedded in the firm's resources and capabilities. For example, Grant (2010) argues that as rates of change in the external environment increase firms have to increasingly base their long term strategies on internal resources and capabilities rather than focus on external market forces. Several years later, it was also proposed by Varadarajan and Jayachandran (1999) that organisational issues (e.g. corporate reputation) are relevant to

marketing strategy such as branding, competitive behaviour, positioning, and segmentation, and have an impact on quality management, marketing and business strategy (e.g. market orientation), and outcomes of marketing strategy (e.g. market share, customer satisfaction). Based on the above statements, we suggest that corporate reputation can be used as a strategic resource that helps to make a brand image strategy.

As mentioned earlier, the terms “capabilities” and “competencies” are used interchangeably as in most of the strategy literature (e.g. Prahalad and Hamel, 1990; Day, 1994; Hooley et al., 1998). Hooley et al. (1998), (see Figure 3.2 ) proposes a typology of resources, briefly explained below, focusing on marketing assets and capabilities and relating these to competitive positioning alternatives. Two aspects of a firm’s resources are presented: “organisational assets” and “company capabilities”.

According to Hooley et al. (1998), a basic distinction has been made between assets and capabilities (Penrose, 1959; Mahoney, 1995; Kamoche, 1996). “This distinction was perhaps most clearly articulated by Day (1994), who suggested that assets are the resource endowments the business has accumulated (e.g. investments in scale, plant, location and brand equity) while capabilities are the glue that binds these assets together and enables them to be deployed advantageously. The latter are complex bundles of skills and collective learning, exercised through organisational processes, which ensure superior coordination of functional activities. In what follows we take resources to contain both assets and capabilities”.

Figure 3.2: Typology of organisation resources



(Items in italics are only examples and are not intended to be exhaustive)

Source: Hooley et al. (1998)

Therefore, from the review of the previous studies – which established that the resource-based theory (and market orientation) – corporate reputation has been regarded by many researchers as a strategic resource for a firm (Wernerfelt, 1984), which explains the rent-earning capability of resources (see Amit and Schoemaker, 1993). This dynamic capabilities approach examines how resources and capabilities are developed in a firm context (Mahoney, 1995) and will also be developed into a competitive positioning strategy (Hooley et al., 1998). Hooley et al. (1998) reconcile the market orientation and resource-based view by developing a positioning strategy concept.

As stated above (see Hooley et al., 1998), two main approaches to resources have developed. However, previous researchers investigated the strength of corporate reputation used as a strategic resource of a firm. In this research, however, we propose to view simply corporate reputation as one of the intangible assets.

Given the focus of the study on the relationship between the strategic resource role of corporate reputation and brand image strategy, it is also proposed that:

*H4: Strategic resource as a dimension of the corporate reputation has a positive impact on a firm's brand segmentation strategy.*

*H5: Strategic resource as a dimension of the corporate reputation has a positive impact on a firm's brand differentiation strategy.*

*H6: Strategic resource as a dimension of the corporate reputation has a positive impact on a firm's brand positioning strategy.*

### **3.4.1.3 Corporate communication: developing the relationship with its stakeholders and brand image strategy**

Corporate communication is regarded by researchers as a very important tool, directly influencing consumer perception and creating competitive advantage for a company (Gray and Balmer, 1998). In an analysis of corporate communication, recognition must be given to the idea that the information related to corporate reputation is used to communicate a firm's social responsibility activities to stakeholders within the business environment (Lerbinger, 1965; Grunig et al., 1992). For instance, although a medicine brand may have excellent medical performance; the manufacturer may use other forms of its firm's reputation to transmit a different image to their brands. For example, a representation of an experience with this pharmaceutical corporation is 'safe' or trustable (e.g. "It was very reliable and could be trusted when I prescribed the medicine to my patient").

The underlying reputation dimensions correspond to a strategic resource, which is used to integrate the mass communication and being used under the resource-based environment (Deephouse, 2000). Also, the corporate reputation can be positioned to the specific target group that enhances the generation of better feedback from stakeholders within the business environment (Stanwick and Stanwick, 1998).

According to an analogous school of thought (Fombrun and Shanley, 1990; Shkolnikov et al., 2004), corporate reputation is developed on the basis of consumer perception. Therefore, marketers portray corporate reputation as a benefit for the customers because when they feel more secure about a firm's ability they will buy more.



Moreover, a firm's reputation can influence customer choice. Fombrun and Shanley (1990) argued that corporate reputation serves as a value signal that enables customers to gauge the merits of a product or service, especially in situations where customers are overloaded with information or in cases where there is inadequate information about a product. Similarly, Srivoravilai (2006) observe that a corporate reputation helps customers to select the best choice among many alternatives in the market. Landon and Smith (1997) and Sabate and Puente (2003) also confirmed that corporate reputation is used by consumers to make purchasing decisions. Corroborating this point of view, it is suggested by Shkolnikov et al. (2004) that a good corporate reputation enables the generation of increased customer loyalty.

The review of literature in public relations indicated that corporate reputation is devised to protect firms from excessive interpretation by stakeholders (Chibnall, 1977; Hall et al., 1978; McNair, 1996; L'Etang, 2006).

Furthermore, a company's corporate reputation builds a relationship between the firm and its customers. Firms are keen to employ their corporate reputation to enhance the development of a sound relationship with their customers (see Perrow, 1961a; Perrow, 1961b; Shrum and Wuthnow, 1988). This is based on the fact that corporate reputation is frequently used as a signal contributing towards a thorough understanding of not just consumers but, more importantly, the key competitors of the firm (Kreps and Wilson, 1982; Milgrom and Roberts, 1982). For this reason, corporate reputation is a device that can be devised to build a relationship between a company and its stakeholders.

The last dimension to be considered relates to corporate communication. Earlier literature also indicated that the relationship between a firm's communications with its customers has an impact on brand image strategy-setting. Some researchers (Birkigt and Stader, 1986; Gray and Balmer, 1997) have noted that communication plays an important role in the branding process. Fombrun and Rindova (1998), in their study on reputation management strategies of leading US/UK companies, concluded that communication benefits result from the variety of issues about itself that a firm reveals through its communications. It is also put forward by Fombrun and Rindova (1998) that communications make a firm transparent, and enabling shareholders to appreciate the firm's operations better. This argument suggests that communication can play a pivotal role in corporate brand management.

Several researchers have suggested that a firm's communications have a direct impact on setting the scene for segmenting and positioning a firm's product, either in direct marketing (e.g. Peltier and Schribrowsky, 1997) or in service sectors (e.g. Zineldi, 1996). To be more specific, a firm's use of communication in any form (e.g. package design, logo design, distribution channel and salesperson) creates a platform to make their consumers understand more about themselves and their products (or services), making it easier for brand managers to target their branding strategy to a clearly defined or segmented market groups.

However, according to communication literature, communication can be categorised into two streams of thought. Similar to Peltier and Schribrowsky (1997), Nandan (2005) also indicated that marketing communications and brand management influences brand image and enhances brand equity (Nandan, 2005). Moreover, Flint

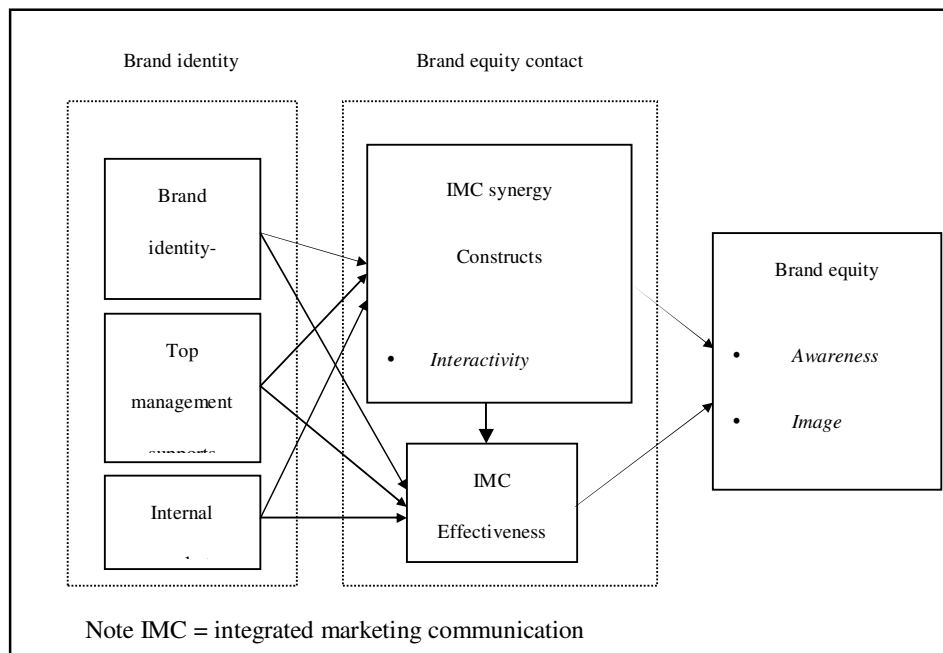
(2004) asserted that it is also necessary to gain considerable understanding of its competitors through customer relationships if a firm focuses mostly on its customers. Then it is easier for a firm to understand their customers' needs, communicate with them and set a brand aiming at and focusing on at specific segments in the market (Dickson and Ginter, 1987).

Another stream of corporate communication thought can be found in consumer behaviour research. Scholars belonging to this group argued that marketing communication (e.g. multi-attribute attitude models, self-image congruence models) is a function of situational factors such as product utilitarianism and product value-value-expressiveness which expressiveness that is employed by managers to set their positioning strategy (Johar and Sirgy, 1989). According to van Raaij and Verhallen (1994), a firm differentiates its product to position its brand in a specific market by using different designs or campaigns to communicate with its customers. Similarly, Schultz (1998) argued that brands are central to this integrated marketing communication. Keller (1993) points out that customer-based brand equity emanates from consumer familiarity and strong, favourable associations with the brand. Keller (1993) further argued that marketing communication represents the voice of a brand. Through marketing communication, companies can establish a dialogue with consumers concerning their product offerings (1993).

Additionally, Madhavaram et al. (2005) suggested that an effective use of IMC (Integrated marketing communication) will result in a situation whereby a consumer-held brand image will be congruent with the strategist's intended brand identity. This is because that by clearly and consistently communicating the brand identity to other

brand stewards, the brand strategist can ensure a more synergistic and effective IMC (for an IMC construct conceptual framework see Figure 3.3). Therefore, for practitioners, according to Madhavaram et al., IMC has become an integral part of brand strategy that requires extensive brand development activities within the firm before beginning any external brand communications efforts. In addition, Vargo and Lusch (2004) argued that marketing is evolving toward a dynamic and evolutionary process based on a service-centred view. In keeping with this evolution, they suggested that brand management should be used for initiating and maintaining a continuing dialogue with the customers.

Figure 3.3: IMC construct conceptual framework



Source: Madhavaram (2004)

Based on Madhavaram et al.'s (2005) theory that a firm can use communication to enhance its brand image strategy, they argued that a when a firm has a clear and accurate understanding of the brand identity, it is able to develop a better IMC

programme to communicate their brand identity more clearly and accurately. And they might finally get feedback from customers, the prospects and the general public regarding brand awareness and image. Feedback from other entities in the environment, including competitors, will enable the brand owner to adjust its brand image strategy, and/or its IMC strategy. Therefore, they suggested that a firm should put more effort into communicating with to their customers to generate brand-related market information from the environment.

Discussing communication, the two most common approaches used in marketing communication to influence consumer choice are categorized as: Brand Image Strategy (Ogilvy, 1963) and the Unique Selling Proposition (USP) strategy (Reeves, 1961). To summarise those previous researchers' thinking stated above, Johar and Sirgy (1989) asserted that the IMC based on brand image strategy – which is essentially used to position a company's brand in the market possess a dual nature of both rational and emotional elements. These elements are based on the use of self-image congruence models and the use of multi-attribute attitude models in brand positioning. Image strategy involves the building of a “personality” for the product or creating an image of the product user (Ogilvy, 1963). USP strategy, on the other hand, involves informing consumers of one or more key benefits that are perceived to be highly functional. Both of these theories are developed into a construct of brand positioning (Johar and Sirgy, 1989; Hooley et al., 2004).

Given the focus of the study on the uses of corporate reputation, and that shaping the perception of shareholders and stakeholders plays a role of communication in a company's branding strategy, it is proposed that:

*H7: Corporate communication as a dimension of corporate reputation has a positive impact on a firm's brand segmentation strategy.*

*H8: Corporate communication as a dimension of corporate reputation has a positive impact on a firm's brand differentiation strategy.*

*H9: Corporate communication as a dimension of corporate reputation has a positive impact on a firm's brand positioning strategy.*

### **3.4.2 The application of a firm's corporate reputation signals to brand image strategy**

From the review of literature on the uses of corporate reputation, although corporate reputation has not been defined as a business function, a proper definition of this concept will require a fusion between aspects of human resource management, marketing, business strategy and corporate communications (Gray and Balmer, 1998; Hooghiemstra, 2000). In Weigelt and Camerer's (1988) review of the theory and applications of the uses of corporate reputation on corporate strategy, they identified a corporate reputation as a set of attributes ascribed to a firm, inferred from the firm's past actions, while strong financial performance generally signals an effective corporate strategy. Therefore, a corporate reputation helps a brand to create customer satisfaction, thus resulting in a higher level of financial performance for the firm (Weigelt and Camerer, 1988). However, on the other way around, some researchers (Roberts and Dowling, 2002; Sabate and Puente, 2003) suggested that a firm's good financial performance helps a firm to establish or maintain a good reputation.

In order to understand the relationship between corporate reputation and brand image, it is important to understand the context in which corporate branding operates (Hatch et al., 1998; Bickerton, 2000). An UOVP (Unique Organization Value Proposition) model was proposed by Knox and Maklan (1998) with the aim of positioning and branding an organisation. This branding process consists of four “higher marketing mix variables”: reputation; product and service performance; product brand and customer portfolio; and networks. With these four components, the organisational or corporate brand is created and the means by which this brand is differentiated from its competitors. In this way, corporate reputation helps managers to lay out a brand image strategy.

One year later, following Knox and Maklan’s (1998) study, Knox (1999) proposed another model called “the organisation brand monitor” after proposing the UOVP model for the organisation branding concept. This identified the existing brand and mapped out the desired brand for the firm in the future. In this model, reputation is used as a factor to monitor the development of an organisation. Based on the organisation brand monitor concept, it implies the existence of a causal link between a firm’s corporate reputation and its brand image.

According to many corporate reputation scholars, a corporate reputation scale (Fryxell and Wang, 1994) is extensively used in practice as a positioning instrument to maintain or modify customer behaviour. For example, Nguyen and Leblanc (2001) studied the relationship between corporate reputation and customer loyalty in the service sector. A review of the literature reveals that it is a widely shared belief that a

firm's corporate reputation has a large impact on customer loyalty (Nguyen and Leblanc, 2001). This implies the effect of corporate reputation on customer retention indecisions in the service sector, since the service loyalty in itself represents the customer's rejection of competitive offerings aimed at changing buying habits and constitutes one of the most reliable overall indicators of the service firm's success. Their study gave the managers a thorough understanding of these relationships which contribute to establishing the distinction between image and reputation and help management use them more effectively in their communication strategy, thereby enhancing the firm's positioning strategy. In essence, they suggested that the managers to use corporate reputation as a tool to help them devise a positioning strategy for their products.

### **3.4.3 Price regulation**

According to previous researchers, price policy has become an important issue for the pharmaceutical industry world-wide (Huttin, 1992; Dickson and Redwood, 1998; Scherer, 2004; de Wolf et al., 2005). In most of the advanced countries (e.g. the UK, Germany, Canada, the USA and Japan) in the world, the price of medicines is an important issue and may be affected by government policy.

However, previous literature (Myers and Reynolds, 1967; Lee, 2008) also has suggested that a product's price influences a customer's brand perception. Marketing studies also show that price can have an impact on customers' evaluations of a brand (Larkin, 2010). However, the more a customer is loyal to a particular brand, the lower is his or her price elasticity of the demand functions (Starr and Rubinson, 1978).



According to Aaker (1996, p. 17), when firms increase price to contribute to their profitability, they must ensure that customers have a positive perception of their brands' quality. That is, "branded products enjoy higher prices than the generic products, resulting in higher market valuation of firm assets, even if the production technology is somewhat similar" (Larkin, 2010, p. 16). Larkin (2010) suggested that firms can measure consumers' preferences through their views of a brand. The more a consumer prefers a brand, the more he or she is willing to pay for and the more quantity he or she is will to purchase of the brand. Thus, Larkin (2010, p. 31) maintains that "firms with strong brands have loyal consumers with high subjective value for the firm's products and who are willing to pay more and stick with the product despite higher prices or price cuts by competitors."

It was mentioned by Anis and Wen (1998, p. 21) that "patent holding pharmaceutical firms are modeled as price-discriminating international monopolies. In an unregulated world market, firms set monopoly prices in each national market. Three types of regulatory rules: (i) 'reasonable' relationship rule, (ii) international price comparison rule, and, (iii) therapeutic class comparison rule, are examined. While price regulation may lead to lower introductory prices for new drugs, the price of existing drugs may increase. Domestic price regulation may increase foreign prices. Canadian data supported the model's predictions. Policy makers should anticipate these responses that affect the entire vector of drug prices and not just those subject to specific regulations." And some other articles (Zweifel and Crivelli, 1996; Danzon and Furukaw, 2003; Danzon and Furakawa, 2008) addressed on the similar issue in

different countries such as Canada, France, Germany, Italy, Japan, Mexico, the United Kingdom and the United States.

However, the literature doesn't indicate strong support for price regulation as a factor in the relationship between the uses of corporate reputation and brand image strategy. This moderating effect of price regulation will be discussed in more detail in the qualitative result in the next chapter.

### 3.5 Hypothesis developing

In the following section, based on the previous literature and arguments, a hypothesis table (Table 3.3) is developed which established the relationship between each constructs. This table bares an intension to explain the proposed framework in this study.

Table 3.3: List of research hypotheses

<b>H1</b>	Value creation as one dimension of the uses of corporate reputation has a positive impact on a firm's brand segmentation strategy.
<b>H2</b>	Value creation as one dimension of the uses of corporate reputation has a positive impact on a firm's brand differentiation strategy.
<b>H3</b>	Value creation as one dimension of the uses of corporate reputation has a positive impact on a firm's brand positioning strategy.
<b>H4</b>	Strategic resource as one dimension of the uses of corporate reputation has a positive impact on a firm's brand segmentation strategy.
<b>H5</b>	Strategic resource as one dimension of the uses of corporate reputation has a positive impact on a firm's brand differentiation strategy.
<b>H6</b>	Strategic resource as one dimension of the uses of corporate reputation has a positive impact on a firm's brand positioning strategy.
<b>H7</b>	Corporate communication as one dimension of the uses of

	corporate reputation has a positive impact on a firm's brand segmentation strategy.
<b>H8</b>	Corporate communication as one dimension of the uses of corporate reputation has a positive impact on a firm's brand differentiation strategy.
<b>H9</b>	Corporate communication as one dimension of the uses of corporate reputation has a positive impact on a firm's brand positioning strategy.

Source: Developed by the author

### 3.6 Conclusion

This chapter provides a detailed investigation of earlier literature on corporate reputation, identifying three dimensions of antecedents in the use of corporate reputation as: value creation, influencing competitor's actions and developing a relationship with its stakeholders. The study also highlights the impact of corporate reputation on a firm's brand image strategy as a consequence. Explanations of the hypotheses on brand image strategy which are affected by the uses of corporate reputation are proposed. Hypotheses demonstrated the different relationships between the study constructs in the integrative framework provided.

## **CHAPTER FOUR: METHODOLOGY**

### **4.1. Introduction**

The previous chapter detailed the conceptual framework and the hypotheses. The purpose of this chapter is to justify and outline the methodology used to empirically test the proposed conceptual model, and to answer the research questions of the study. Following the introduction, this chapter is mainly divided into four sections. The first section provides a description of the research design in the current study justifying the choice of both qualitative and quantitative methodologies. The second section of this two-phase study illustrates the qualitative study and its objectives. The third section highlights the development of the questionnaire to be used in the data collection phase. The pilot study, sampling procedures and the main survey will also be discussed in this section as will data analysis techniques.

### **4.2. Research strategy**

First of all, the researcher began by highlighting the nature of her research objectives in order to identify the research approach to be used in this thesis. This study aims to explain the significance and importance of the uses of corporate reputation for managers. The study also aims to explain the impact of value creation, influencing

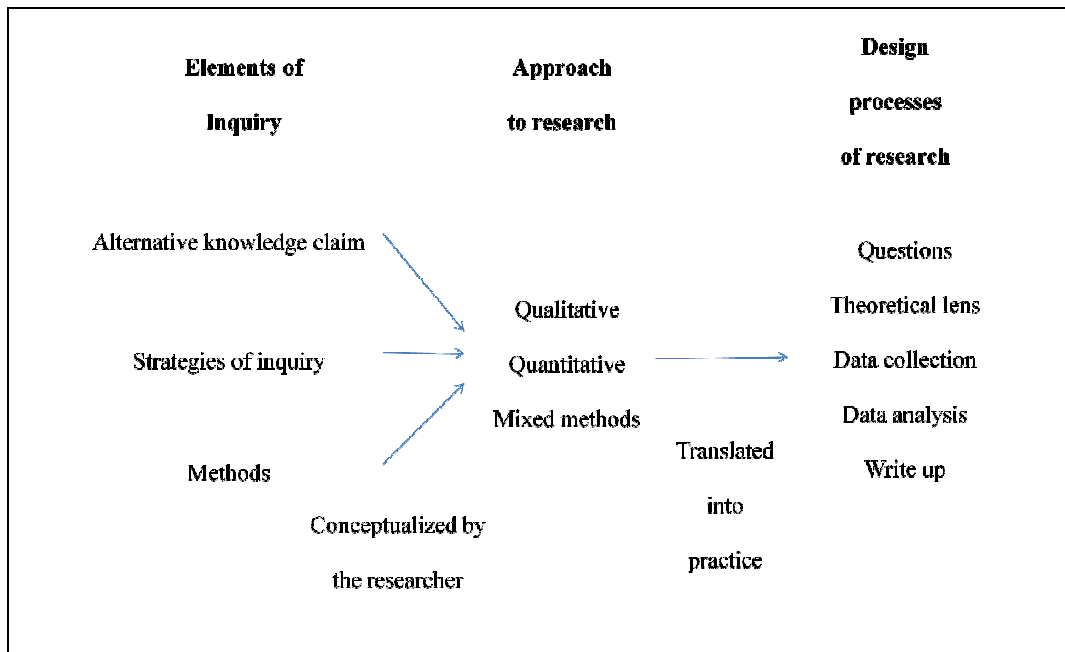
competitors' actions and developing the relationship with its stakeholders (which are the uses of corporate reputation) and the consequences of the uses of corporate reputation for brand managers when laying out brand image strategy. Those factors have been derived from extant literature and theories from related fields of study (i.e. corporate reputation, branding, communication and marketing strategy literature). Hence, the research problem of this thesis has been built on what is already known from previous studies. As a consequence, a theoretical framework has been developed as a start for the current study. This framework presents variables that are claimed to be important in either fostering or discouraging the uses of corporate reputation in setting brand image strategy in the pharmaceutical industry. In order to achieve the research objectives, the researcher has taken into consideration the fact that it is important to choose a research method based on her objectives and her research questions. The following paragraphs attempt to illustrate and justify the research methods used in this study.

In general, two approaches (i.e. deductive and inductive) are always applied by researchers to build and test the built theory. In a deductive approach, the researcher begins with an abstract, logical relationship among concepts, then moves towards concrete empirical evidence. In the inductive approach, the researcher begins with detailed observations of the world and moves towards more abstract generalisations and ideas (Neuman, 2003). In practice, most researchers use both approaches at various points in their studies. This research employs a deductive approach to research the theoretical relationship. This implies that the research is built on theories that already exist in the domain that is being researched (Bryman and Bell, 2007).

Hypotheses are developed from those relevant theories and will be tested after data collection and analysis phases.

Based on Crotty (1998), in designing a research proposal, we should consider four questions, which are: (1) “what epistemology – theory of knowledge embedded in the theoretical perspective – informs the research (e.g. objectivism, subjectivism, etc.)? (2) What theoretical perspective – philosophical stance – lies behind the methodology in questions (e.g. positivism and post-positivism, interpretivism, critical theory, etc.)? (3) What methodology – strategy or plan of action that links methods to outcomes – governs our choice and use of methods (e.g. experimental research, survey research, ethnography, etc.)? (4) What methods – techniques and procedures – do we propose to use (e.g. questionnaire, interview... etc.)?” Based on Crotty’s model, Creswell (2009) addressed three elements of inquiry (i.e. knowledge claim, strategies of inquiry and methods) that pertain to the design of the research. With respect to the current study, the researcher will follow Creswell’s (2003) model in order to illustrate the research design. Figure 4.1 shows that how these elements merge together to outline the approach of the research and, in turn, translate into processes in the design of the research.

Figure 4.1: Knowledge claims, strategies of inquiry and methods leading to approaches and the design processes.



Source: Adapted from Creswell (2003, p.5)

According to Creswell (2009) the first step when designing a research is to evaluate the knowledge claims brought to the study. “Knowledge claim means that researchers start a project with certain assumptions about how they will learn and what they will learn during their enquiry. These claims might be called paradigms (Mertens, 1998; Lincoln and Guba, 2000); philosophical assumptions, epistemologies and ontologies (Crotty, 1998); or broadly conceived research methodologies (Neuman, 2000). Philosophically, researchers make claims about what is knowledge (ontology), how we know it (epistemology), what values go into it (axiology), how we write about it (rhetoric), and the process for studying it (methodology)” (Creswell, 1994) (Creswell, 2009, p.6). Four sets of assumptions are suggested by Creswell (2009) concerning the knowledge claims: postpositivism, constructivism, advocacy/participatory and pragmatism. However, most ongoing social research is based on two major

approaches – positivism and interpretivism. Positivism is the oldest and most widely used approach. It is broadly defined as the approach of natural sciences. However, interpretive researchers claim that the goal of social research is to develop and understand social life and discover how people construct meaning in natural settings in contrast to e positivism (Neuman, 2003). It is argued by Neuman (2003) that ordinary people use common sense to guide their daily living, so one must first grasp common sense.

Qualitative research allows researchers to formulate explanations of the subjects under study and to give representations of these explanations in order to add to a body of knowledge (Wright 2008). However, in the real life, neither common sense nor scientific law has perfect answers. Therefore, social researchers developed triangulation by using qualitative and quantitative methods to provide a view from a number of perspectives rather than from only one perspective to look at a concept, some phenomena or circumstances. Hence, Neuman (2003) proposes four types of triangulation. First comes the measurement triangulation, which means using more than one measure for the same phenomena. Second is triangulation of the observer, in which the data are collected by a variety of observers to give a more complete picture of the setting. The third one is triangulation of theory, which is when the researcher uses multiple theoretical perspectives in the planning stage of the research. The last one is triangulation of methods, which means conducting qualitative and quantitative approaches of research.

The current study will employ the fourth type of triangulation or the “mixed methods approach” (Tashakkori and Teddlie, 2003). It is an approach in social sciences which



employs collecting data by both forms of research styles (i.e. qualitative and quantitative concurrently or sequentially) (Creswell, 2009). Adopting this approach also means that data will be integrated, related or mixed at some stage or research. The reasons for combining the two methods are various and differ from one researcher to another. For example, Bryman (2006) classified two schemes for justifying the combination of quantitative and qualitative research based on a content analysis of 232 social science articles in which the two methods were combined (see Table 4.1).

Table 4.1: The reasons for combining the qualitative and quantitative methods

<b>Scheme one</b>	
Triangulation	Convergence, corroboration, correspondence or results from different methods. In coding triangulation, the emphasis was placed on seeking corroboration between quantitative and qualitative data.
Complementarity	Seeks elaboration, enhancement, illustration, clarification of the results from one method with the results from another (Greene et al., 1989, p. 259)
Development	Seeks to use the results from method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions (Greene et al., 1989, p. 259)
Initiation	Seeks the discovery of paradox and contradiction, new perspective of frameworks, the recasting of questions or results from one method with questions or results from the other method (Greene et al., 1989, p. 259)
Expansion	Seeks to extend the breadth and range of enquiry by using different methods for different inquiry components (Greene et al., 1989, p. 259)
<b>Scheme two</b>	
Triangulation or greater validity	Refers to the traditional view that quantitative and qualitative research might be combined to triangulate findings in order that they may be mutually corroborated. If the term was used as a synonym for integrating quantitative and qualitative research, it was not coded as triangulation.
Offset	Refers to the suggestion that the research methods associated with both quantitative and qualitative research have their own strength weaknesses so that combining them allows the researcher to offset their weaknesses to draw on the strength of both.
Completeness	Refers to the notion that the researcher can bring together a more comprehensive account of the area of enquiry in which he or she is interested if both quantitative and qualitative are employed.

Process	Quantitative research provides an account of structures in social life but qualitative research provides sense of process.
Different research questions	This is an argument that quantitative and qualitative research can be each answered in different research questions.
Explanation	One is used to help explain findings generated by the others.
Unexpected results	Refers to the suggestion that quantitative and qualitative research can be fruitfully combined when one generates surprising results that can be understood by employing the other.
Instrument development	Refers to contexts in which qualitative research is employed to develop questionnaire and scale items- for example, so that better wording or more comprehensive closed answers can be generated.
Sampling	Refers to situations in which one approach is used to facilitate the sampling of respondents or cases
Credibility	Refers to suggestions that employing both approaches enhances the integrity of findings
Context	Refers to cases in which the combination is rationalized in terms of qualitative research providing contextual understanding coupled with either generalizable, externally valid findings or broad relationships among variables uncovered through a survey.
Illustration	Refers to the use of qualitative data to illustrate quantitative findings, often referred to as putting 'meats on the bones' of dry quantitative findings.
Utility or improving the usefulness of findings	Refers to a suggestion which is more likely to be prominent among articles with an applied focus, that combining the two approaches will be more useful to practitioners and others.
Confirm and discover	This entails using qualitative data generate hypotheses and using quantitative research to test them within a single project.
Diversity of views	This includes two slightly different rationales – namely, combining researchers' and participants' perspective through quantitative and qualitative research respectively, and uncovering relationships between variables through quantitative research while also revealing meanings among research participants through qualitative research.
Enhancement or building upon quantitative/qualitative findings	This entails a reference to making more of or augmenting either quantitative or qualitative findings by gathering data using a qualitative or quantitative research approach.
Other/unclear	
Not stated	

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Source: Adpted from Bryman (2006)

Many influential researchers in the social and behavioural sciences present different paradigms, commonly called 'pragmatism' (Tashakkori and Teddlie, 1998). However, the major concern for most of the pragmatism forms is the problem itself instead of the problem-solving methods or the solution that is used (Patton, 2002). Therefore

the researchers use all the approaches necessary to understand the problem (Creswell, 2009). The merit of this method is the fact that a qualitative study will excel at telling the story, understanding complex social phenomena and assist the researcher in developing themes from the respondents' point of view, while quantitative research will summarise a large amount of data for generalisation purposes.

After determining to use mixed methods for this research, it is necessary to consider the strategy of inquiry that will be used (Creswell, 2009). Three strategies have been illustrated in Creswell (2009) for mixed methods: sequential, concurrent and transformative procedures. In sequential procedures, which is the strategy used in the current study, researchers may start with a qualitative method for exploratory purposes and then move towards a quantitative method using a large sample. Hence, the qualitative data collection techniques of this study will be conducted prior to the main quantitative survey to increase the validity of the research (Deshpande, 1983). Alternatively, researchers could begin with a quantitative method to test the theory, followed by a qualitative method to add depth of understanding.

Finally, the major element in the research approach is to find specific methods of data collection and analysis. As mentioned earlier, this study will commence with a qualitative research phase in order to (1) gain deeper understanding of the topic, (2) refine and revise the preliminary research model and hypotheses and (3) purify measures for the questionnaire (Churchill, 1979). In this phase, a qualitative method will be adopted, using content analysis of managers' opinions about their decisions regarding brand image strategy for the pharmaceutical industry. This method was

previously adopted by several researchers (e.g. Deephouse, 2000; Bickerton, 2000; Bromley, 2001) to reach similar research objectives for corporate reputation studies.

### **4.3 Research design**

#### **4.3.1 The first phase – qualitative data collection**

Qualitative research is more suitable when there is a need for unfolding what surrounds a phenomenon (Carson et al., 2001). van Maanen (1979) defines qualitative methods as “an array of interpretative techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world” (p. 520).

A considerable number of studies have used qualitative methods to gain insights into the phenomena being investigated (e.g. Arnould and Price, 1993; Clesi et al., 1993; Thompson, 1997). Therefore the researcher proposes to conduct exploratory research in the first phase to gain insights into the studied phenomenon (Zikmund, 2003). The choice of exploratory research design for this first phase of the study was influenced by the nature of the research objectives. With respect to the construct of the uses of corporate reputation, the researcher is looking for a better understanding of strategy, corporate communication and value creations between the firm and their customers before undertaking the quantitative research in the second phase.

The semi-structure interview was conducted as follows: First, a list of questions was designed on the basis of the reviewed literature and the research question, along with several open-ended questions (see Table 4.2). Second, a research framework was designed and provided to the interviewees. Third, the interviewees answered the semi-structure interview questionnaire to gain a better perspective on the relationship between the hypotheses and related issues.

Table 4.2: Research question, hypotheses, and qualitative questions

**RQ:** How do (Taiwanese pharmaceutical) companies use their corporate reputation to develop brand image strategy?

**\*RQ: Research question**

Hypotheses	Supporting Literature	Qualitative Questions
<p>H1: A firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand segmentation strategy.</p>	<p>Ludlow (1997); Kaplan and Norton (2000); Pires and Aisbett (2003); Ulaga (2001); Priem (2007); Payne (2002); Kamakura and Novak (1992)</p>	<p>Can you suggest the characteristics of value creation which tend to encourage the setting of brand segmentation strategy? And why?</p> <p>You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand segmentation strategy, what value creation characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?</p>
<p>H2: A firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand differentiation strategy.</p>		<p>Can you suggest the characteristics of value creation which tend to encourage the setting of brand differentiation strategy? And why?</p> <p>You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand differentiation strategy, what value creation characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?</p>
<p>H3: A firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand positioning strategy.</p>		<p>Can you suggest the characteristics of value creation which tend to encourage the setting of brand positioning strategy? And why?</p> <p>You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand positioning strategy, what value creation characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?</p>

---

H4: A firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand segmentation strategy.

Birger  
(1984) Wernerfelt

Can you suggest the characteristics of strategic resource which tend to encourage the setting of brand segmentation strategy? And why?

You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand segmentation strategy, what strategic resource characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?

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H5: A firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand differentiation strategy.

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Can you suggest the characteristics of strategic resource which tend to encourage the setting of brand differentiation strategy? And why?

You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand differentiation strategy, what strategic resource characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?

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H6: A firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand positioning strategy.

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Can you suggest the characteristics of strategic resource which tend to encourage the setting of brand positioning strategy? And why?

You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand positioning strategy, what strategic resource characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?

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H7: A firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand segmentation strategy.

Reeves, 1961;  
Ogilvy, 1963;  
Dickson and Ginter,  
1987; Johar and  
Sirgy, 1989; Sirgy,  
1989; Peltier and  
Schribrowsky, 1997;  
Vargo and Lusch,

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Can you suggest the characteristics of corporate communication which tend to encourage the setting of brand segmentation strategy? And why?

You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand segmentation strategy, what communication characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?

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H8: A firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand differentiation strategy.

2004; Flint, 2004; Hooley et al., 2004; Madhavaram et al., 2005; Nandan, 2005

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Can you suggest the characteristics of corporate communication which tend to encourage the setting of brand segmentation strategy? And why?

You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand segmentation strategy, what communication characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?

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H9: A firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand positioning strategy.

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Can you suggest the characteristics of corporate communication which tend to encourage the setting of brand segmentation strategy? And why?

You, as a brand manager, who is responsible for controlling the quality of a brand in the firm to create brand segmentation strategy, what communication characteristics (of the uses of corporate reputation) would you put more attention to or would like to invest more? And why?

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Source: Develop by the author



#### **4.3.2 Research setting: country and industry**

Having chosen a specific country for study, companies in a single industry were chosen as the setting for this research. Certain considerations led to this choice. According to Baker (1994, p.109) and Bernard (2000, p.66), the selection of the research setting is an important part of any successful research project. Considerations about where to conduct research pose limitations on propositions generated from a theoretical model. They set a boundary for generalisability. Moreover, an appropriate research setting can facilitate a researcher in effectively taking note of social phenomena, examining proposed theories and confidently drawing conclusions about empirical tests (Eisenhardt, 1989; Doktor et al., 1991).

The review of literature shows that the majority of previous studies about the uses of corporate reputation have been completed in Western countries (the USA, the UK, Germany, Australia, Japan, Germany and the Netherlands, etc.) and concentrate less on investigating the topic in other regions (e.g. Asia, Africa, or South America), which have therefore limited any generalisability of theory (Boyacigiller and Adler, 1991; Peng et al., 1991; Trompenaars and Hampden-Turner, 1998). In order to bridge this gap, Taiwan, one of the most dynamic business environment countries in Asia, was selected as the setting of this study for several reasons.

First, Taiwan is culturally similar to its Asian neighbours (e.g. China) and clearly different from Western countries (Hofstede, 1980; McGill, 1995), where most of the corporate reputation studies have been carried out. According to Hofstede (1980, pp.165–222), Taiwan is different from the USA, UK, and other developed countries on both uncertainty avoidance and individualism aspects. Taiwan obtained a

relatively low score for uncertainty avoidance (i.e. has a higher tolerance for ambiguity, less emotional resistance to change, etc.) and a very low score for individualism (i.e. group decisions are considered better than individual decisions, employees have strong emotional dependence on company, etc.). Moreover, the values and norms of Taiwanese consumers have strong roots in Chinese folk religion – which integrates Buddhist elements alongside a basically Taoist base (Taiwan’s major religion adopted by more than 90 per cent of its population) (Taiwan Yearbook, 2006; CIA world factbook). An important element in the philosophy of Buddhism, the “anatta” or “no-self”, helps differentiate Taiwanese consumers from those in Western countries who mainly are Catholic or Protestant (Wattanasuwan and Elliot, 1999). It is also stated in Child and Tsai (2005) that Taiwan has developed to a stage where the key stakeholders are very knowledgeable. Moreover, Taiwan is one of the fastest-growing economies of the newly industrialized countries. Much of its growth has come from multinational companies.

Second, Taiwan is also home to the regional headquarters of many multinational companies in Asia. It also has a language and cultural advantage, helping multinational companies to carry out their ownership advantage, internal nationalisation advantage and location-specific advantage when they try to invest in Chinese market. Therefore, it is possible for multinational companies to use Taiwan as a platform for developing their business in Chinese or other Asian markets. Moreover, Taiwanese foreign exchange reserves consist of USD\$266 billion and there is a high percentage of experienced workers and researchers in Taiwan.

Third, Taiwan has a high credit rating internationally. Taiwan has a stable and dynamic business environment (Economist Information Unit; EIU, 2006). According to the international credit rating company Standard and Poor, Taiwan's sovereign credit was rated at level of AA, which is better than other Asia countries (i.e. Japan – AA; China – BBB; South Korea – A-; Malaysia – BBB+). The above statements suggest that Taiwan has good financial stability. Moreover, in 2006, Taiwan is ranked as number three in Asia and number six in the world for its overall business environment, as reported by the Business Environment Risk Intelligence (BERI) when evaluating the risks attached to an investment environment. This is just next to Switzerland, Singapore, Holland, Norway and Japan. Here are some comments from two different company general managers in Taiwan:

*“By contrast to China, the Taiwan authorities adopt a much more uniform and universalistic approach to managing environmental issues. The institutional constraints in Taiwan are stringent and less open to negotiation. This reflects the fact that Taiwan has been under western (especially American) influence for a longer period of time and also that it is wealthy enough to address the cost of dealing with environmental problems. The tough enforcement of environmental regulations has in fact encouraged some enterprises to relocate, often to China and Southeast Asian countries.”* [General Manager1, Taiwan]

*“As a long experience in international business competition and influences, Taiwanese enterprise is going towards to international market. It has developed an operational model about production and selling as follows: it used to stress on the production for exporting, emphasising on the strategy of light, thin, short, and small as bearing a strategy to sell high volume with low profit margin. Nowadays, it became a combination supply chain production which possesses a more accurate, more profitability and vertical division of labour supply chain associate production.*

*Moreover, it enforces the high adding value on the product and brand marketing strategy, therefore it has successfully entered the international market.*

*It is pointed out in the data of Taiwanese ministry of economic affairs that in the international business, Taiwanese small and middle businesses have developed a tight relationship with the international big company and forms an international marketing network. The Taiwanese business competitive advantage is based on that the business can become a first supplier in the international market. Moreover, they develop the ability to gain the profit base on not only the first-line supplier but also possess the ability of invention in advance. Apart from this, the relationship between Taiwanese businesses and international brand becomes a closely related strategy union which maybe is a result of the effort on R&D that Taiwanese businesses worked on. Moreover, according to Fortune previous years statistics, multinational corporation from the developing countries are increasing and becoming a new power, which become a parallel situation with the multinational corporations from Europe, American, and Japan (Taiwan Yearbook 2006; CIA - The World Factbook)” [General Manager2, Taiwan].*

Following the selection of Taiwan, companies in a single industry were chosen as the setting for this research. Certain considerations led to this choice. First, the single-industry design provided the researcher with a better control over market and environmental anomalies (Conant et al., 1990) and industry effects (Rao, 1994). It is because a single industry would be more focused on a particular manufacturing procedure, ways of marketing their goods and keeping their customer relationships. Second, it was desirable to study a setting in which: (1) the three dimensions of the uses of corporate reputation could be explained and clearly measured; (2) corporate reputation played an important role in the general operations and the survival of businesses; (3) previous research had identified the presence of various types of

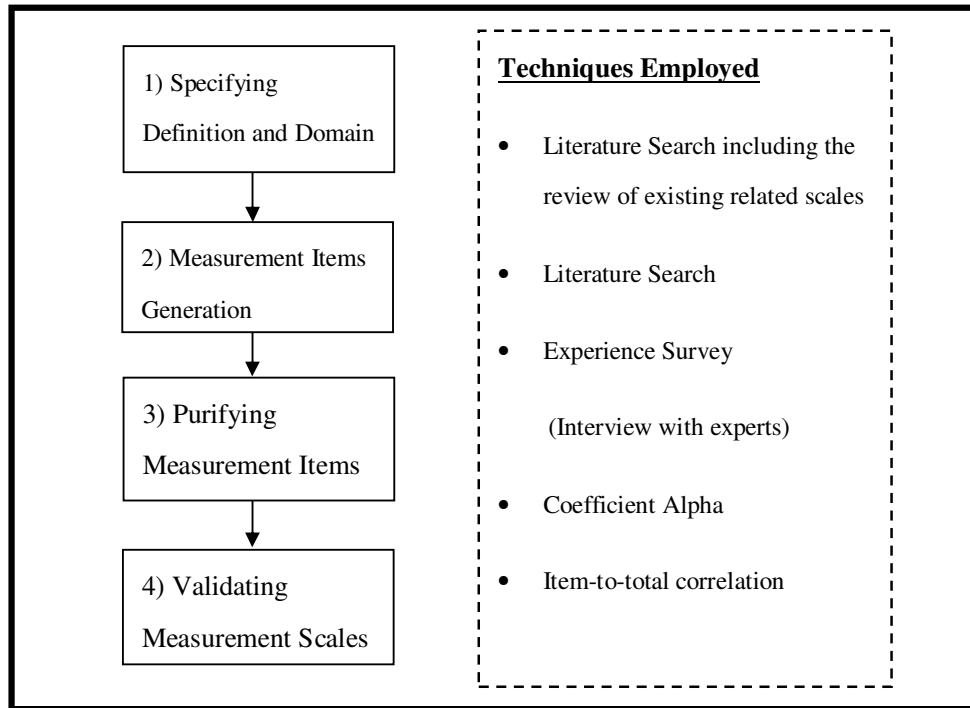
strategic use of a firm's intangible assets, communication and value creation activities, and (4) reliable and adequate data were available for the purification of measurement scales and hypothesis testing.

Given the requirements above, the pharmaceutical industry was chosen because reputation building is particularly important for it: since medicines are considered vital for human life, corporate reputation thus plays an important role in the general operations and the survival of business. Furthermore, a pharmaceutical firm can use its reputation to signal its customers about its new technology, the standards they require or just to build trust within its customers. As a result they might get a higher price for their products. The managers in this industry make mainly strategic decisions on the use of a firm's intangible assets, its corporate communication and value-creation activities.

#### **4.4 Scale Development and Validation**

The scale development procedure included four major steps (see Figure 4.2). The first step involved specifying operational definitions and dimensions of focal constructs to help the subsequent generation of items hypothesised refer to each dimension. The use of different definitions and dimensions constrains comparison and collection of the findings (Churchill, 1979). A literature search helped achieve this step. Existing scales and related domains were reviewed, and items from various marketing and management journals (e.g, *Corporate Reputation Review*, *Journal of Marketing*, and *Academy of Management Journal*) were adopted.

Figure 4.2: Steps in measurement scales development



The second step involved creating additional measurement items using semi-structured interviews with experts. The expert interviews included showing the conceptual framework to respondents and asking questions about the measurement items of each construct. Examples of questions included “What do you think are important aspects to the uses of corporate reputaiton, and why?” and “What items on this page do you think are not relevant to value creation, and why?” The face validity and content validity were also examined in this step (Netemeyer et al., 2003, p. 16).

The third step involved subjecting the items generated in the previous phase to a pilot test as an item-trimming procedure (DeVellis, 2003). Questionnaires containing all potential items were distributed through a web-survey system to the managers in the

sample companies in the Taiwanese pharmaceutical industry. From their experiences with their companies, respondents rated items on the scale from 1 (“disagree”) to 5 (“agree”). I translated items extracted from English-based journals and dialogues with English-speaking experts in the previous two steps into Mandarin Chinese, and an expert in the English language back-translated them into English (Brislin, 1970). Before the final questionnaires were completed, respondents were randomly asked to point out any item that was either ambiguous or difficult to answer (Kohli et al., 1993).

Subsequently, coefficient alphas and item-to-total correlations were computed to check for the reliability of measurement scales (Churchill, 1979; DeVellis, 2003). A set of questionnaires along with purified items from this step was edited and prepared for the main survey (Lagas, 2000; Long-Tolbert, 2000; Algesheimer et al., 2005).

In the fourth step, following the main survey, purified measurement scales were sent to confirmatory factor analysis (CFA) as a method to confirm the scales. This procedure was employed to examine scale properties, such as reliability, and construct validity (convergent and discriminant validity). The tests based on the data from the main survey were performed in the PLS software. A further discussion about the CFA technique appears in section 4.5.1, and the results of the literature search, qualitative studies, and the pre-test also are presented.

#### **4.4.1 Literature search and existing measurement scales**

The main objectives of conducting literature search and qualitative studies are to identify the domains of measurement scales and generate items for each of them.

Domains of constructs were derived from existing related concepts and scales in various academic journals (see complete list in Appendix 1). In general, there are various developed measurement scales, all of which are a Likert type with marketing capabilities and operating performance. The researcher identified three domains for the construct of the uses of corporate reputation (value creation, strategic resources and corporate communication), and three domains for the construct of brand image strategy (brand segmentation, brand differentiation and brand positioning). According to past articles (e.g., Ashforth and Gibbs, 1990; Wayne and Ferris, 1990; Suchman, 1995; Foreman and Whetten, 2002), the domains of all concepts can be classified in many different ways. While not comprehensive, the domains of constructs in this research were identified and integrated so as to be as concise as possible. Examples of domains, including their corresponding items, are exhibited in Table 4.3.

The uses of a corporate reputation construct were found to be named and operationalised differently in the existing literature. The majority of articles focused on specific forms of support such as value creation (e.g. Milgrom and Roberts, 1986; Beatty and Ritter, 1986; Wong and Saunders, 1993; Herbig et al., 1994; Devine and Halpern, 2001; Eberl and Schwaiger, 2005), strategic resources (e.g. Barney, 1986; Cornell and Shapiro, 1987; Weigelt and Camerer, 1988; Dierickx and Cool, 1989; Roberts and Dowling, 2002), and corporate communication (e.g. Lerbinger, 1965; Grunig et al., 1992; Gray and Balmer, 1998).

Wong and Saunders (1993) researched value creation, which has been classified into four categories: (function/instrumental value, experiential/hedonic value,



symbolic/expressive value, cost/sacrifice value). These items of value creation, developed fully by Wong and Saunders (1993) were taken by the researcher for examination.

Strategic resources have been also found to be named differently in existing literature: namely competitive advantage, capability to influence competitors' actions, strategies or decision making. The researcher developed items for strategic resources based on competitive advantage scales/items (Wong and Saunders, 1993), such as efficient sales and marketing, advanced R&D, early market entry and large cash resources.

The construct of corporate communication has been poorly addressed in existing literature. However, it has been addressed collectively (e.g., Lerbinger, 1965; Grunig et al., 1992; Gray and Balmer, 1998) with a similarity of terms, such as: corporate reputation as used to communicate a firm's social responsibility activities to stakeholders within the business environment (Lerbinger, 1965; Grunig et al., 1992). The corporate reputation is also used as a means of shaping the perception of shareholders and stakeholders (Fombrun and Shanly, 1990), used as a tool for building a relationship between the firm and the customers (Perrow, 1961a; Perrow, 1961b; Kreps and Wilson, 1982; Milgrom and Roberts, 1982; Shrum and Wuthnow, 1988), used as a means of influencing consumer choices (Chibnall, 1977; Hall et al., 1978; Fombrun and Shanley, 1990; McNair, 1996; Landon and Smith, 1997; Sabate and Puente, 2003; Shkolnikov et al., 2004; L'Etang, 2006; Srivoravilai, 2006), and court better reputations among customers (Fryxell and Wang, 1994; Brammer and Pavelin, 2006; Puente et al., 2007).

In contrast, previous research has examined the three constructs of brand image strategy under the names brand segmentation (Dickson and Ginter, 1987), brand differentiation (Dickson and Ginter, 1987), and brand positioning (Wong and Saunders, 1993). Dickson and Ginter (1987) identify the domains of the brand segmentation construct and brand differentiation. Brand segmentation and brand differentiation are constructed with items adopted from Dickson and Ginter (1987), and brand positioning items are constructed with items adopted from Wong and Saunders (1993). The construct items appear in Table 4.3.

Table 4.3: The domains and items of constructs in extant literature

Construct	Examples of Domains and Items	Major References
Value creation (25)	<p><u>Function/Instrumental Value (7)</u></p> <ul style="list-style-type: none"> <li>• Our firm's corporate reputation promises good quality products and service to customers.</li> <li>• Our firm competes by creating useful products.</li> <li>• Our firm competes by creating the correct product attributes for its targeted customers.</li> <li>• Our firm competes by appropriate performances.</li> <li>• Our firm competes by appropriate outcomes.</li> <li>• Our firm's value-chain activity is consistent with functional value creation.</li> <li>• Our firm's resource allocation is consistent with functional value creation.</li> </ul> <p><u>Experiential/Hedonic Value (6)</u></p> <ul style="list-style-type: none"> <li>• Our firm competes by appealing to the senses.</li> <li>• Our firm competes by creating appropriate emotions (fun, pleasure, excitement, relaxation, etc.)</li> <li>• Our firm competes by facilitating social relationships (bonds, attachments, and togetherness).</li> <li>• Our firm competes by creating epistemic value (knowledge, novelty, fantasy).</li> <li>• Our firm's value-chain activity is consistent with experiential value creation.</li> <li>• Our firm's resource allocation is consistent with experiential value creation.</li> </ul> <p><u>Symbolic/Expressive Value (5)</u></p> <ul style="list-style-type: none"> <li>• Our firm competes by enhancing its customers' self-identity.</li> <li>• Our firm competes by enhancing its customers' self-concept.</li> <li>• Our firm competes by enhancing its customers' self-worth.</li> <li>• Our firm competes by creating personal meaning.</li> <li>• Our firm competes by facilitating self-expression.</li> </ul>	Wong and Saunders (1993)

	<p><u>Cost/Sacrifice Value (7)</u></p> <ul style="list-style-type: none"> <li>• The corporate reputation of our firm helps to reduce transaction costs.</li> <li>• Our firm competes by offering economic value (low prices, value in use, life costs).</li> <li>• Our firm competes by simplifying the purchasing process for its consumers (ease of use, ease of doing business, simplicity, availability, accessibility).</li> <li>• Our firm compete by enabling ease of use of its products (time, effort, energy).</li> <li>• Our firm compete by minimizing customer risk (personal, technological, strategic).</li> <li>• Our firm's value-chain activity is consistent with symbolic value creation.</li> <li>• Our firm's resource allocation is consistent with symbolic value creation.</li> </ul>	Wong and Saunders (1993)
Strategic value or resource (5)	<ul style="list-style-type: none"> <li>• In our organization, corporate reputation serves as a competitive advantage.</li> <li>• Our firm's corporate reputation sends a strong signal to its customers.</li> <li>• Our firm's corporate reputation implies efficient sales and marketing.</li> <li>• Our firm's corporate reputation implies its advanced R&amp;D.</li> <li>• Our firm's corporate reputation implies that we are able to enter markets early.</li> </ul>	Wong and Saunders (1993)
Corporate communication (3)	<ul style="list-style-type: none"> <li>• Our firm's corporate reputation shapes the perceptions of shareholders and other stakeholders.</li> <li>• Our firm's corporate reputation builds a relationship between the firm and its customers.</li> <li>• Our firm's corporate reputation influences consumer choices.</li> </ul>	
Segment development (5)	<ul style="list-style-type: none"> <li>• Our corporate brand strategy has one particular form of demand function modification.</li> <li>• Our corporate brand strategy requires product differentiation.</li> <li>• Our corporate brand strategy requires changes in point distribution location.</li> <li>• Our corporate brand strategy requires changes in importance attached to a non-physical product.</li> <li>• Our corporate brand strategy requires changes in importance attached to a physical product.</li> </ul>	Dickson and Ginter (1987)
Product Differentiation (7)	<ul style="list-style-type: none"> <li>• How our corporate brand is perceived varies according to whether consumers have experienced our products.</li> <li>• How our corporate brand is perceived varies by word of mouth.</li> <li>• How our corporate brand is perceived varies by promotion.</li> <li>• Our corporate brand is actually created differently by product characteristics.</li> <li>• Our corporate branding maybe directed at different market segments.</li> <li>• Our corporate brand may utilize physical product characteristics.</li> <li>• Our corporate brand may utilize non-physical product characteristics.</li> </ul>	Dickson and Ginter (1987)

Competitive position (8)	<ul style="list-style-type: none"> <li>• Our firm’s corporate brand positioning strategy signifies high quality to its customers.</li> <li>• Our firm’s corporate brand positioning strategy signifies better product performance to its customers.</li> <li>• Our firm’s corporate brand positioning strategy is to achieve a higher frequency of advertising.</li> <li>• Our firm’s corporate brand positioning strategy involves a long distribution chain.</li> <li>• Our firm’s corporate brand positioning strategy is to provide a much better service to its customers.</li> <li>• Our firm’s corporate brand positioning strategy tries to fulfil the basic needs of our customers.</li> <li>• Our firm’s corporate brand positioning strategy tries to fulfil the basic needs of our customers.</li> <li>• Our firm’s corporate brand positioning strategy tries to target upmarket audiences.</li> </ul>	Wong and Saunders (1993)
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Source: Adapted from previous literature as stated

#### 4.4.2 Generation of Measurement Items

Following the literature search, semi-structured interviews with experts were conducted. Following Miles and Huberman (1994, pp.10–11), the researcher extracted items from interview data by using data reduction and display functions in Nvivo 7 software. A coding scheme was designed based on literature and transcripts. Data were grouped according to relevant codes. Items were subsequently drawn from each group and compared with those obtained from literature (see Table 4.3). The profile of interviewees and details about interviews are presented in Table 4.4 as follows:

Table 4.4: The list of respondents and their titles

Interview wee	The Respondent	The Organisation	Duration (minutes)	Interview Date
1	Vice Executive Officer	A Taiwanese local pharmaceutical manufacturing company (company A)	90	November, 2009
2	Sales Manager	A Japanese original medicine company Taiwan branch (company B)	120	November, 2009
3	Chairman	A Taiwanese local pharmaceutical manufacturing company (company C)	60	November, 2009
4	Manager (Management)	A Taiwanese local pharmaceutical manufacturing company (company D)	90	November, 2009

5	Chief Executive Officer	A Taiwanese local pharmaceutical manufacturing company (company E)	90	November, 2009
6	Chief Executive Officer	A Taiwanese local pharmaceutical manufacturing company (company F)	90	November, 2009
7	Chief Executive Officer	A commercial agent selling European imported raw material medicine and local generic medicine (company G)	120	November, 2009
8	Marketing Department Manager	The largest Taiwanese local pharmaceutical manufacturing company (company H)	90	November, 2009
9	Sales Manager	A Japanese original medicine company Taiwan branch (company I)	90	November, 2009
10	Chairman	A B2B marketing company selling European imported medicine and local generic medicine (company J)	90	November, 2009
11	Sales Manager	A leading American original medicine company Taiwan branch (company K)	90	November, 2009
12	Chairman	A commercial agent selling European imported raw material medicine and local generic medicine (company L)	50	November, 2009
13	Sales Manager	A Japanese original medicine company Taiwan branch (company M)	60	November, 2009
14	Sales Manager	A Taiwanese local pharmaceutical manufacturing company (company N)	60	November, 2009

Resource: Developed by the researcher

The second step of Churchill's (1979) paradigm is to generate sample items which capture the domain as specified. It includes generating additional measurement items by using, for example, literature searches, experience surveys, exploratory research, critical incidents and focus groups (Churchill, 1979). The researcher plans to employ a combination of literature search and exploratory research which will include semi-structured interviews with the pharmaceutical company managers. The items representing the construct and their sub-components have been regenerated for the initial item pool from the marketing literature (see Table 4.2). However, the issues which are expected to emerge from the exploratory research will be integrated for generating the items.

In this study, each construct is a multi-item scale. Churchill (1979, p. 66) suggests that single items usually have considerable “uniqueness or specificity in that each item seems to have only a low correlation with the attribute being measured and tends to relate to other attributes as well.” In addition, single items also have considerable measurement error; they produce “unreliable responses in the sense that the same scale position is unlikely to be check in successive administrations of an instrument” (Churchill, 1979, p. 66).

The initial measurement for the dimensions of the uses of corporate reputation is mainly based on the work by Wong and Saunders (1993). This study covered the relationship between business orientation and performance. Their results are based on structured interviews conducted with 90 chief executives of companies all operating in the United Kingdom. Data was gathered on the business orientations and broad strategy directions of the firms using a battery of 45 items based on Kotler (1991) and O’Shaughnessy (1984) examining the following seven dimensions: (1) strategic objectives, (2) strategic focus, (3) target markets, (4) competitive targets, (5) differential advantage, (6) marketing mix emphasis and (7) current competitive position. Moreover, organisational traits were measured with the McKinsey 7-S framework as the basis for the following six dimensions: 5) (1) strategy, (2) structure, (3) systems, (4) style and (5) staff (Wong and Saunders, 1993). The items regarding corporate communications originate from van Riel (2000). Items of the other construct about brand image strategy are adapted from original items in the studies by Park et al. (1986), Dickson and Ginter (1987), Roth (1995) and Hsieh (2001). More

details about the domains and items of constructs in existing literature can be found in Table 4.3.

According to Carson et al. (2001), when there is the need to clarify circumstances that surround a phenomenon, conducting qualitative research tends to be suitable. Several studies on the uses of corporate reputation (e.g. Clayman, 1987; Weigelt and Camerer, 1988; McGuire et al., 1990; Shefrin and Statman, 1995, 1997; Nanda et al., 1996; Antunovich and Laster, 1998; Groenland, 2002; Schwaiger, 2004) use qualitative methods to gain insight into the investigated phenomena. The researcher, therefore, plans to conduct exploratory research for the first phase to gain insights into the studied phenomenon.

The objective of this study is to investigate the effects of the uses of corporate reputation on brand image strategy in the pharmaceutical industry from the managerial perspective. Therefore, this research was conducted through in-depth interviews with managers in the pharmaceutical industry in Taiwan. Fourteen brand managers from pharmaceutical companies in Taiwan were used as respondents. The respondents were selected because they have experience in implementing brand segmentation and positioning strategies in their pharmaceutical company. They were able to provide information about how their firms' current situations affect corporate strategy.

The 14 interviewees were selected from companies within the Taiwanese pharmaceutical industry. The following section provides a brief introduction of each interviewee. The interviewed manager from company A is a vice executive officer

with more than 20 years' experience in big pharmaceutical companies in Europe (e.g., Germany, Holland). The manager in company B is now a sales manager in the Japanese original company with more than 20 years' prior experience working at Pfizer in Taiwan as a sales director and marketing manager. The interviewee from company C is the chairman of the company, which is a local pharmaceutical company with high-quality supply-chain management. The company, which has sought international cooperation and has been approved by the Pharmaceutical Inspection Convention and Pharmaceutical Inspection Co-operation Scheme (PIC/S) international standard, is the first Taiwanese company to sell medicine into the European market. The interviewee from company D, the largest local pharmaceutical company in Taiwan, is the speaker of the company who has served in that capacity for more than 30 years. Company D is well known for its effort in building corporate social responsibility and in providing feedback to the local area and society with social services.

The interviewee in company E is the CEO of the company. Company E is a local Taiwanese pharmaceutical company with 40 years' experience in pharmaceutical manufacturing and selling. The interviewee from company F is also the company's CEO. Company F is a medium-sized pharmaceutical company with more than 80 years of pharmaceutical experience and is well known for its high-quality products. The interviewee from Company G is the CEO of the company. Company G's main practice is distributing imported and locally produced medicine to hospitals, both regular and teaching. The interviewee from company H is the marketing department manager. Company H is the largest Taiwanese local pharmaceutical manufacturing



company that produces its own patent medicine as well as generic medicine; the company holds the leading position in the Taiwanese pharmaceutical market.

The interviewee from company I, which is a local branch of a Japanese original medicine company situated in Taiwan for more than 40 years, is a sales manager. Company I hosts international conferences and seminars and is well connected with research in academia and practice. The interviewee from company J is the chairman of the company. Company J's business is mainly importing European original medicine and health care products, such as vitamins, ointment and hand cream. The interviewee from company K, which is a branch of a leading U.S. original medicine company in Taiwan, is a sales manager. The original company is among the largest pharmaceutical companies in the world and is advanced in R&D and sales. It was the first foreign company to be approved to build a factory in Taiwan. The interviewee from company L is also the company's chairman. Company L's business area is mainly importing medicinal material, turning the material into medicine and then selling the medicine to hospitals. Interviewee from company M, which is a branch of a Japanese original medicine company in Taiwan, is a sales manager. The core value of company M is its R&D; it has invented many patent medicines over several decades, though it specialises in diabetics and cardiovascular patent medicines. The interviewee from company N, which is a local Taiwanese pharmaceutical manufacturing company, is a sales manager. The firm mainly focuses on injection medicine products. The background information of each interviewee and the company to which he or she belongs appears in Table 4.5.

Table 4.5: Qualitative interviewee and belonged company background information

No.	Title of the interviewee	Company name	Business type	Number of employee	Company size: Capital or Turnover
1	Vice Executive Officer	Taiwan Biotech co. Ltd. - A Taiwanese local pharmaceutical manufacturing company (company A)	Producing western medicine, medical medicine, medical supplies product, healthy food, import and export trading, offer medical information service and health care service.	700	Capital: US\$33,000,000
2	Sales Manager	FUJISAWA TAIWAN CO., LTD. - A Japanese original medicine company: Taiwan branch (company B)	Producing antibiotics powder, injection, capsule and pills.	NA	Capital: US\$12,000,000
3	Chairman	Gentle Pharma - A Taiwanese local pharmaceutical manufacturing company (company C)	The biggest producing company of Taiwanese antibiotics.	80	Capital: US\$5,000,000
4	Management Manager	Yung Shin Phar. IND. Co., Ltd - A Taiwanese local pharmaceutical manufacturing company (company D)	Producing human medicine, animal medicine, facial skincare, healthy food, API (Active Pharmaceutical Ingredients), Refined Chemicals, and medical supplies products	1100	Capital: US\$84,579,000
5	Chief Executive Officer	Swiss Pharmaceutical Co Ltd. - A Taiwanese local pharmaceutical manufacturing company (company E)	Producing, processing and selling western medicine and raw material, animal medicine, Chinese medicine, agricultural pesticides. Trading medicinal supplies products.	190	Capital: US\$5,200,000
6	Chief Executive Officer	Ying Yuan Pharmaceutical co., Ltd - A Taiwanese local pharmaceutical manufacturing company (company F)	R&D and selling NHI medicine, human medicine, animal medicine.	160	Capital: US\$2,700,000
7	Chief Executive Officer	Wide Pharmaceutical - A commercial agent selling European imported raw material medicine and local generic medicine (company G)	Exclusive distribute local pharmaceutical products and serve as a general agent of European medicine products	25	Turnover: US\$2,500,000
8	Marketing Department Manager	CCPC - The largest Taiwanese local pharmaceutical manufacturing company (company H)	R&D and Generation of labor on medicine and medical products. Serve as medical brand agent and channel marketing and provide home care service.	1000	Capital: US\$100,000,000
9	Sales Manager	Tanabe Pharmaceuticals Taiwan, Ltd. - A Japanese original medicine company: Taiwan branch (company I)	Producing and selling NHI medical and medicine products, and healthy food. And sell as a consignee for any kind of healthy food.	170	Capital: US\$3,000,000
10	Chairman	Weal-Chance Trading Co. Ltd. - A business-to-business marketing	Serve as a wholesaler of western and Chinese medicine. Quoted price, bid and sell local and foreign products. Act as an	NA	Capital: US\$250,000

		company selling European imported medicine and local generic medicine (company J)	agent, import and export healthy food, customics, raw material medicine products and toy.		
11	Sales Manager	Pfizer (Taiwan) Co. Ltd. - A leading U.S. original medicine company: Taiwan branch (company K)	R&D and producing all kinds of western medicine products.	400	Capital: US\$9,100,000
12	Chairman	Yang De Pharmaceutical Co Ltd. - A commercial agent selling European imported raw material medicine and local generic medicine (company L)	Exclusive distribute local pharmaceutical products and serve as a general agent of European medicine products	10	Turnover: US\$1,000,000
13	Sales Manager	Takeda Pharmaceuticals Taiwan, Ltd. - A Japanese original medicine company: Taiwan branch (company M)	Producing and selling medicine and food additives. Import foreign mother company and related enterprise products; buy raw material, finished products, and semi-finished products to provide forign Mother Company and related enterprises. Import and export animal medicine, forage and forage additives. Import, export and sell environmental sanitation medicine.	NA	Capital: US\$3,000,000
14	Sales Manager	Nang Kuang Pharmaceutical Co. Ltd. - A Taiwanese local pharmaceutical manufacturing company (company N)	Producing western medicine product, especially medicinal drop and injection products.	300	Capital: US\$21,000,000

Note: NA = not available. The company identification information is for the examiners only and will be deleted from the published thesis.

In conducting the interviews, questions based on the measurement items of each construct were asked. For example, for the uses of corporate reputation construct, questions such as: “What do you think are the uses of corporate reputation dimensions?” and “Why?” were employed. More details about the questions can be found in Appendix 2. Appendix 2 shows how the qualitative questions are related to the research questions and the research hypotheses. It should be noted that *content* and *face validity*<sup>3</sup> are also examined in this step (Netemeyer et al., 2003). In this step,

<sup>3</sup> The definition of several types of validity will be provided later in the last section of this chapter.

a diagram (see Figure 3.1) representing the conceptual framework and a table of items (see Table 4.2) were shown to the respondents. The respondents were asked if they agreed with the list of existing items, or whether they could suggest additional items.

The information from the interviews was integrated with the items regenerated from the literature. The questionnaire statements for these items were constructed by the researcher. Afterwards, the first draft of the quantitative questionnaire was designed.

In general, the respondents agreed with the existing items shown during the interviews; nobody suggested that any of the constructs be deleted. Rather, a few additional items were suggested for insertion into relevant scales. Three major issues, which were raised by the interviewees, are going to be stated one by one in the following section.

## **4.5 Pilot Test**

### **4.5.1 Measurement Scales of Corporate Background Variables**

Measurement Scales of four corporate background variables known to affect corporate reputation were adapted from existing literature and subjected to tests as explained below.

*Corporate history* A measurement scale for corporate history was developed according to Balmer and Greyser (2006). The scale ranges from “less than 10 years”

to “more than 81 years” of history. Since this data is an objective indicator, reliability and validity tests were not needed.

***Operating performance*** Operating performance can be measured in different ways. In this study, since the researcher could not acquire financial figures of all private companies, subjective performance indicators were used instead in hypotheses testing as recommended by Dess and Robinson Jr. (1984) and Covin and Slevin (1989). Turnover was the item used to measure this construct.

***Corporate characteristics*** A measurement scale for corporate characteristics in this study was adapted from the qualitative interview. The scale has “manufacturing + sales (America original)”, “manufacturing + sales (European original)”, “manufacturing + sales (Asia [e.g. Japan, South Korea, India] original)”, “Dealer for America original company products”, “Dealer for European original company products”, “Dealer for Asia original company products”, “Local (Taiwan) manufacturer + sales”. Respondents were asked to pick which one their business belongs to. Since this data is an objective indicator, reliability and validity tests were not needed.

***Firm size*** Size has been operationalised in various ways in the literature. In this study, number of staff was used as an indicator of size. Note that a monetary indicator such as total assets was not employed because of the limited availability of data. Since this data is an objective indicator, reliability and validity tests were not undertaken.

#### **4.5.2 Sampling**

Since it is not possible to collect data from all brand managers, the researcher employed a sampling method to initiate a sample of pharmaceutical managers. Sampling techniques can be divided into the two broad categories of probability and non-probability samples (Churchill, 1996). In survey research, a probability sampling method is generally more appropriate than a non-probability one because “the resulting sample is likely to provide a representative cross-section of the whole” (Denscombe, 2002, p. 12). Moreover, researchers can make an unambiguous statement about “the accuracy and validity of the finding from the survey by referencing to the degree of error and/or bias which may be present in it as measured by well understood statistical methods” (Baker, 2002, p. 106). In a probability sample, “each member of the population has a known, nonzero chance of being included in the sample. The chance of each member of the population being included in the sample may not be equal, but everyone has probability of inclusion” (Churchill, 1996, p. 479). Conversely, with non-probability samples, “there is no way of estimating the probability that any population element will be included in the sample” (Churchill, 1996, p. 479).

However, because of data protection, it is likely that the pharmaceutical companies may not allow the researcher to access the staff database. In this case, the research could neither identify nor enumerate sampling units. Therefore, a probability-based sampling could not be conducted. However, when a probability-based sampling cannot be conducted due to some limitations, a non-probability sampling technique is considered to be an appropriate choice although the generalisability of statistical

results can be relatively limited (Baker, 2002; Denscombe, 2002). Examples of non-probability based sampling techniques include convenience samples, judgement samples and quota samples (Churchill, 1996).

This study will use a judgement sample as a non-probability-based sampling technique. The key feature of this judgement is that population elements are purposely selected because it is believed that they are representative of the population of interest, and they are expected to serve the research propose (Churchill, 1996). With a judgement sample, the researcher is not interested in sampling a cross-section of opinion but rather in sampling those who can offer some perspective on the research question (Churchill, 1996). Therefore, the researcher plans to distribute a questionnaire to pharmaceutical managers because they tend to be familiar with brand strategy decision making within the pharmaceutical industry.

#### 4.5.3 Pretest Scale Items

Table 4.6: Pre-test Data Profile

<b>Details about Questionnaires and Respondents</b>	
No. of Distributed Questionnaires	20 sets
No. of Returned Questionnaires	16 sets (80 % response rate)
Pharmaceutical managers and above	100 % of total respondents
Corporate history between 11 to 30 years	81.25%
Corporate history between 30 to 50 years	18.75%
Size more than 100 staff (include)	25 %
Size less than 100 staff (exclude)	75 %
Local company (manufacturing + sales )	43.75 %
Original company or dealers of European or American pharmaceuticals	56.25 %

Turnover over 150 million TW dollars	43.75 %
Turnover less than 150 million TW dollars	56.25 %

\*(1 British pound = 1.45 US dollar = 50 TW dollars)

Source: Developed by the author

Participants were recruited from managers in the Taiwanese pharmaceutical industry. Eighty per cent of distributed questionnaires (n=16) were returned online to the researcher.

All respondents held the position of manager or above. The majority of the companies (81.25 per cent) the respondents have a 31–50-year corporate history. The majority of the companies (75per cent) have fewer than 100 staff. More than half (56.25 per cent) are original companies or dealers of European or American pharmaceuticals, and more than half (56.25 per cent) of the companies have less than 150 million TW dollars turnover. Respondents were also randomly asked to indicate their opinion on the clarity and comprehensibility of questionnaire items (Bearden et al., 2001; Kohli et al., 1993).

#### **4.5.4 Measurement Purification**

The third step of Churchill's (1979) paradigm involves reliability and validity<sup>4</sup> testing for the scale items because it is very important to ensure that the data which researchers plan to collect is meaningful and accurate. Therefore, the researcher plans to use expert judgement (managers or so-called practitioners) and the application of the first draft of the questionnaire to a sample of individuals – i.e. a pilot study

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<sup>4</sup> See Section 4.6, for more details about the assessment of reliability and validity.



(Churchill, 1979) in order to complete this step. Thus, the questionnaire containing the items obtained from the existing literature and the qualitative study will be distributed to respondents after the evaluation of the managers.

A pilot study will be conducted (de Vellis, 2003) followed by the pool of items generated in the previous phase. After the evaluation of the managers, the questionnaires which contain all potential items will be distributed to group of up to 16 managers in companies within the Taiwanese pharmaceutical industry. Examples from the literature suggest that pre-test sample sizes of up to 100 respondents are appropriate (e.g., Diamantopoulos et al., 1994). However, because of the small total number of people in the target group, the pilot study sample is small as well. In this research, 20 sets of questionnaires were distributed in the pre-quantitative-study and 16 were collected (80% response rate).

Based on the respondents' experience within the pharmaceutical industry, they will be asked to rate items on a scale from "1" (Strongly disagree) to "5" (Strongly agree). Items extracted from English journals in the two steps above will be translated into Taiwanese by the researcher and translated back into English by a qualified translator in English language (Brislin, 1970). In addition, the researcher plans to randomly ask the respondents to point out any item that is either ambiguous or difficult to answer (Kohli et al., 1993). The data will then be subjected to a further purification process. This will involve reliability analysis and exploratory factor analysis (EFA).

#### 4.5.5 Reliability Analysis

In line with Melewar (2001, p. 38), before the main survey is conducted, it is vital that “the measures used are developed and investigated for their reliability”. According to de Vellis (1991, p. 24) scale reliability is “the proportion of variance attributable to the true score of the latent variable”. Based on the literature, the types of scale reliability include: (1) internal consistency reliability, which is concerned with “the homogeneity of the items comprising a scale” (de Vellis, 1991, p. 25; Churchill, 1979); 2) the test-retest reliability, which is concerned with “the stability of item responses over time” (Nunnally, 1967, p. 206); and (3) the alternative-form of reliability, which refers to “the extent to which two different statements can be used to measure the same construct at two different times” (Netemeyer et al., 2003, p. 46). However, to be consistent with several authors (e.g. Churchill, 1979; de Vellis, 1991; Melewar and Saunders, 1999; Melewar, 2001), the research refers to the scale reliability as internal consistency reliability. Internal consistency implies that items are highly inter-correlated (de Vellis, 1991; Melewar, 2001). High inter-item correlation infers that items of scale share a common core and measure the same thing (de Vellis, 1991; Melewar, 2001; Netemeyer et al., 2003).

In order to assess the internal consistency, several researchers (e.g. Churchill, 1979; de Vellis, 1991; Melewar, 2001) recommend measuring the coefficient alphas (Cronbach, 1951). The coefficient  $\alpha$  is widely used as a measure of reliability (de Vellis, 1991). The research will, therefore, assess the internal consistency of a set of items by measuring their coefficient alphas (Churchill, 1979). Internal consistency is typically equated with Cronbach’s (1951) coefficient  $\alpha$ . Theoretically, the coefficient

$\alpha$  is concerned with “the degree of interrelatedness among a set of items designed to measure a single construct” (Netemeyer et al., 2003, p. 49). The coefficient  $\alpha$  (Cronbach, 1951) can be defined as:

$$\text{The coefficient alpha } (\alpha) = N \cdot \bar{c} / [\bar{v} + (N-1) \cdot \bar{c}]$$

Where:  $N$  = the number of items in the scale  
 $\bar{v}$  = the average variance  
 $\bar{c}$  = the average of all correlation among items in the scale

The coefficient alphas will be computed as a means of checking the reliability of measurement scales (Churchill, 1979; Melewar, 2001; de Vellis, 2003). According to Melewar (2001, p. 39), “A low coefficient  $\alpha$  indicates the sample of items performs poorly in capturing the construct”. Based on a standard of reliability, it suggests that the values of  $\alpha$  equal to or above 0.70 indicate that the items are reliable (Nunnally, 1967; Nunnally and Bernstein, 1994; Melewar, 2001; de Vaus, 2002). Hair et al. (2006) assert that a coefficient  $\alpha$  which is greater than 0.70 is highly satisfactory for most research purposes.

#### **4.5.6 Pre-test**

The purpose of the pre-test was to determine whether the survey questions were contradictory or inappropriate before commencing formal research. The pre-test process helped us to find out issues with the survey questions and to fix these issues. Most importantly, it was to test the reliability and validity of the survey questionnaire. According to Punck (1998:100), when the reliability of a questionnaire or a measure

is pretty low, the difference between respondents is not a real difference but a faked difference. Therefore, if a survey questionnaire that is used for collection of research data is not stable, reliable and precise; the data collected will be questioned. The pre-test questionnaire was reviewed by industry professionals and scholars, and issued to the research target respondents, the managers of the pharmaceutical industry in Taiwan, in March 2010. Because of a lack of respondents, we collected only 16 copies of the valid pre-test questionnaires, which were completed in detail by our respondents. None of these questionnaires were invalid<sup>5</sup>.

#### **4.5.6.1 Validity Analysis**

Validity of one measurement tool (or technique) refers to the preciseness and accuracy of measurement results. In other words, validity asks to what degree the expected targets are actually measured by the designated scale or questionnaire. Validity of one measurement can be tested in three aspects. “Content Validity<sup>6</sup>” focuses on the extent to which a measure represents all facets of a given situation. “Criterion-related validity<sup>7</sup>” is used to demonstrate the accuracy of a measure or

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<sup>5</sup> One of the pretest samples was considered as invalid because one question in it was left unanswered. Moving averages and the median method were not used to substitute the unanswered item.

<sup>6</sup> Content Validity refers to the extent to which a measure represents all facets of a given situation. Those who want to evaluate content validity need to be highly aware of target subjects of one measurement, and to analysis measurement resulting systematically and logically. Validity content focuses on breadth, coverage, and of content, coverage and richness to serve as the main basis for external inference (Chiu, 2005; Lin, 2006, p.198).

<sup>7</sup> Criterion-related validity is a measure of how well one variable or set of variables predicts an outcome based on information from other variables. The key point for the measure is to select valid criteria to reflect the validity of the score outcome. The criterion not only has to reflect the characteristic and personality of an independent measure, but also has to be accepted by the public and

procedure by comparing it with another measure or procedure which has been demonstrated to be valid. “Construct Validity<sup>8</sup>” refers to the degree to which a theoretical definition matches an experimentally determined definition. However, it was not possible to obtain construct validity by statistical analysis<sup>9</sup>, because only 16 samples were available for the pre-test.

The measurement was amended based on theoretical foundations demonstrated by experts and scholars (Dickson and Ginter, 1987; Wong and Saunders, 1993). Some items’ “factor loading” values which were below 0.5 and “Corrected Item-total Correlation” value below 0.3 were deleted, thus resulting in a better Cronbach’s Alpha ( $\alpha$ ) value (See the next section: Validity Analysis and Project Analysis for an explanation in detail). This measure can still be trusted for its content validity on the based on theoretical grounds.

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general researchers as an index to specifically reflect a particular characteristic of the measurement information. (An index, 2005; Lin, 2006, p.198).

<sup>8</sup> Construct validity refers to the degree to which the theoretical constructs can be measured. Construct validity includes convergent validity and discriminant validity. Convergent validity is the degree to which an operation is similar to (converges on) other operations that it theoretically should also be similar to. And similarities are highly expected between these two operations. Discriminant validity describes the degree to which the operationalisation is not similar to (diverges from) other operationalisations that it theoretically should not be similar to. Similarity between two operations is not wanted in this case (Lin, 2006:199).

<sup>9</sup> A factor analysis model is needed for the development of construct validity. A prerequisite to running a factor analysis model is to consider the correlation between the sample size and the number of survey questions. Normally, the sample size has to be three to five times larger than the number of survey questions. However, the research includes too many survey questions and thus it is not going to be easy to develop construct validity using a factor analysis model (Chen et al., 2003).

Although it is impossible to ensure the validity of the questionnaire by factor analysis, appropriate questions for the questionnaire can still be determined by project analysis and reliability analysis. Project analysis and reliability analysis of the questionnaire design were as follows:

#### **4.5.6.2 Validity Analysis and Project Analysis**

##### ***Project analysis of individual items in the questionnaire***

A “consistency test” was used in this study to analyse factors, and factor analysis was used to decide the final version of questionnaire. (see Table 4.6 for a project analysis of the scale of Value Creation; Table 4.7 for a project analysis of the scale of Strategic Value or Resources; Table 4.8 for a project analysis of the scale of Corporate Communication; Table 4.9 for a project analysis of the scale of Brand Positioning; Table 4.10 for a project analysis of the scale of Product Differentiation; Table 4.11 for a project analysis of the scale of Product Segmentation; Table 4.12 for a project analysis of the scale of Medicine Price). Consistency of questions in the questionnaires was tested by “Cronbach’s  $\alpha$ ”, and according to the principle of Cronbach’s  $\alpha$ , the question (or item) with the highest Cronbach’s  $\alpha$  values, on an indicated dimension, were deleted. This was to ensure that all the questions in the questionnaire consistently asked about the target characteristics.

The appropriateness of the questions was examined by modifying the correlation coefficient between individual questions and overall scores. Questions (Q1, Q20 from the value creation construct; Q6 from the corporate communication construct; Q7 from the brand positioning construct; Q6 from the brand differentiation construct; Q1,

Q7 from the brand segmentation construct) were deleted because they had a Corrected Item-total Correlation value lower than 0.3 in their correlation coefficients.

Confirmatory factor analysis (CFA), based on PLS (Partial Least Square), was used to estimate the value of standardised factor loading. The value of standardised factor loading was used as the criterion to test homogeneous consistency of Questions (Q1, Q4, Q20, Q23 from the value creation construct; Q6, Q7 from the corporate communication construct; Q3, Q7 from the brand positioning construct; Q6 from the brand differentiation construct; Q1, Q7 from the brand segmentation construct; Q5 from the medicine price construct) were deleted because they had a standardised factor loading value lower than 0.5.

### ***Reliability analysis of questionnaires***

Project analysis is used to examine the reliability of individual questions in the questionnaire, and reliability analysis is used to estimate the reliability and stability of the questionnaire. The coefficient of internal consistency<sup>10</sup> of statistics, obtained from the pre-test samples, has been examined by reliability analysis. The analysis results indicated that the value of Cronbach's  $\alpha$ , in individual cases, were all higher than 0.7. Based on this, the questionnaire was proved to be highly reliable.

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<sup>10</sup> Coefficient of internal consistency includes the alternate forms of reliability, split-half reliability, Kuder-Richardson reliability (KR20). They all refer to the internal homogeneity, consistency, and stability of the measuring instrument.  $\alpha$  coefficient is now the most accepted criterion for judging reliability (Chiu, 2005).

(1) Project analysis and reliability analysis of the scale of “value creation” for the purpose of measuring the uses of corporate reputation.

Table 4.7: Value creation items and reliability analysis

Questionnaire Questions	Factor Loading	Corrected Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted	Cronbach's $\alpha$
1. Our firm's corporate reputation promises good quality products and service to customers.	0.197	0.179	0.955	0.954
2. The corporate reputation of our firm helps to reduce transaction costs.	0.849	0.799	0.951	
3. Our firm competes by creating useful products.	0.758	0.713	0.951	
4. Our firm competes by creating the correct product attributes for its targeted customers.	0.496	0.431	0.954	
5. Our firm competes by providing good financial performances.	0.852	0.807	0.951	
6. Our firm competes by providing product with appropriate outcomes.	0.902	0.884	0.950	
7. Our firm's value-chain activity is consistent with functional value creation.	0.538	0.537	0.953	
8. Our firm's resource allocation is consistent with functional value creation.	0.629	0.610	0.952	
9. Our firm's products compete by appealing to the senses.	0.918	0.903	0.949	
10. Our firm competes by creating appropriate emotions (e.g. fun, pleasure, excitement, relaxation, etc.)	0.924	0.913	0.948	
11. Our firm competes by facilitating social relationships (e.g. bonds, attachments and togetherness).	0.809	0.790	0.950	
12. Our firm competes by creating epistemic value (e.g. knowledge and novelty).	0.923	0.909	0.948	
13. Our firm's value-chain activity is consistent with experiential value creation (e.g. happiness, affection and excitement...).	0.743	0.687	0.951	
14. Our firm's resource allocation is consistent with experiential value creation.	0.778	0.729	0.951	
15. Our firm competes by enhancing its customers' self-identity.	0.769	0.767	0.951	
16. Our firm competes by enhancing its customers' self-concept (or self-image).	0.836	0.823	0.950	



17. Our firm competes by enhancing its customers' self-worth.	0.664	0.616	0.952
18. Our firm competes by facilitating self-expression.	0.802	0.795	0.950
19. Our firm competes by offering economic value (low prices, value in use, life costs).	0.745	0.693	0.952
20. Our firm competes by simplifying the purchasing process for its consumers (ease of use, ease of doing business, simplicity, and availability of purchasing, accessibility).	0.338	0.299	0.957
21. Our firm competes by enabling ease of use of its products (time, effort, energy).	0.725	0.666	0.952
22. Our firm competes by minimising customer risk (personal, technological, strategic).	0.522	0.498	0.954
23. Our firm's value-chain activity is consistent with symbolic value creation.	0.500	0.496	0.954
24. Our firm's resource allocation is consistent with symbolic value creation.	0.623	0.618	0.952

(2) Project analysis and reliability analysis of the scale of “strategic resources” in the purpose of measuring the uses of corporate reputation

Table 4.8: Strategic resources items and reliability analysis

Questionnaire Questions	Factor Loading	Corrected Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted	Cronbach's $\alpha$
1. In our organization, corporate reputation serves as a competitive advantage.	0.928	0.884	0.935	0.939
2. Our firm's corporate reputation sends a strong signal to its customers.	0.532	0.541	0.939	
3. Our firm's corporate reputation implies efficient sales and marketing.	0.609	0.619	0.937	
4. Our firm's corporate reputation implies it has advanced R&D.	0.578	0.558	0.940	
5. Our firm's corporate reputation implies that we are able to enter markets early.	0.932	0.877	0.929	
6. Our firm's corporate reputation gains the firm more opportunity for strategic alliance or business cooperation.	0.689	0.697	0.935	
7. Our firm's corporate reputation is enhancing the prices by validating them in published clinical reports.	0.675	0.605	0.937	

8. Our firm's corporate reputation enables the firm to enter the market more easily.	0.814	0.742	0.933
9. Our firm's corporate reputation gains more customers for the firm.	0.933	0.918	0.928
10. Our firm's corporate reputation makes the marketing system work more efficiently.	0.926	0.867	0.929
11. Our firm's corporate reputation makes it easier for us to find a downstream reseller.	0.843	0.785	0.932
12. Our firm's corporate reputation can enhance our firm's sales force.	0.698	0.637	0.937
13. Our firm's corporate reputation helps the new product to enter the market.	0.822	0.738	0.933
14. Our firm's corporate reputation helps the strategic link with complementary products.	0.778	0.702	0.935

(3) Project analysis and reliability analysis of the scale of “corporate communication” for the purpose of measuring the uses of corporate reputation

Table 4.9: Corporate communication items and reliability analysis

Questionnaire Questions	Factor Loading	Corrected Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted	Cronbach's $\alpha$
1. Our firm's corporate reputation shapes the perceptions of shareholders and other stakeholders.	0.624	0.599	0.821	0.842
2. Our firm's corporate reputation builds a relationship between the firm and its customers.	0.770	0.657	0.817	
3. Our firm's corporate reputation influences consumer choices.	0.880	0.866	0.797	
4. Our firm's corporate reputation is based on the experience of the sales people.	0.793	0.642	0.817	
5. Our firm's corporate reputation is based on the sales ability of the sales people.	0.772	0.647	0.816	
6. Our firm's corporate reputation is based on the firm's awareness of social responsibility.	0.278	0.252	0.862	
7. Our firm's corporate reputation can be used for all types of negotiations with our customers, competitors or the government.	0.387	0.326	0.857	
8. Our firm's corporate reputation helps internal communication (the communication between our firm and our staffs).	0.899	0.732	0.809	

9. Our firm's corporate reputation helps external communication (the communication between our firm and our customers).	0.802	0.629	0.830
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(4) Project analysis and reliability analysis of the scale of “brand positioning” for the purpose of measuring brand image strategy

Table 4.10: Brand positioning items and reliability analysis

Questionnaire Questions	Factor Loading	Corrected Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted	Cronbach's $\alpha$
1. Our firm's corporate brand positioning strategy signifies high quality to its customers.	0.796	0.557	0.719	0.744
2. Our firm's corporate brand positioning strategy signifies better product performance for its customers.	0.820	0.562	0.721	
3. Our firm's corporate brand positioning strategy is to achieve a higher frequency of advertising.	0.468	0.406	0.733	
4. Our firm's corporate brand positioning strategy involves a long distribution chain.	0.842	0.790	0.613	
5. Our firm's corporate brand positioning strategy is to provide a much better service to its customers.	0.680	0.407	0.730	
6. Our firm's corporate brand positioning strategy tries to fulfil the basic needs of our customers.	0.632	0.597	0.678	
7. Our firm's corporate brand positioning strategy tries to target upmarket audiences.	0.483	0.299	0.766	

(5) Project analysis and reliability analysis of the scale of “product differentiation” for the purpose of measuring brand image strategy

Table 4.11: Brand differentiation items and reliability analysis

Questionnaire Questions	Factor Loading	Corrected Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted	Cronbach's $\alpha$
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1. Our corporate brand is perceived differently according to whether consumers have experienced our products.	0.820	0.667	0.728	0.772
2. Our corporate brand is perceived differently by word of mouth.	0.818	0.660	0.743	
3. Our corporate brand is perceived differently by promotion.	0.722	0.529	0.744	
4. Our corporate brand is actually created differently by product characteristics.	0.652	0.531	0.739	
5. Our corporate branding may be directed at different market segments.	0.858	0.793	0.708	
6. Our corporate brand may utilize physical product characteristics.	0.095	0.026	0.824	
7. Our corporate brand may utilise non-physical product characteristics.	0.618	0.475	0.757	
8. Our firm's corporate brand positioning strategy is based on advanced R&D which leads the needs of the targeted market.	0.749	0.657	0.721	

(6) Project analysis and reliability analysis of the scale of “product segmentation” for the purpose of measuring brand image strategy

Table 4.12: Brand segmentation items and reliability analysis

Questionnaire Questions	Factor Loading	Corrected Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted	Cronbach's $\alpha$
1. Our corporate brand strategy has one particular form of demand function modification.	0.396	0.255	0.753	0.747
2. Our corporate brand strategy requires product differentiation.	0.807	0.603	0.700	
3. Our corporate brand strategy requires changes in point distribution location.	0.840	0.660	0.662	
4. Our corporate brand strategy requires changes in importance attached to a non-physical product.	0.855	0.667	0.668	
5. Our corporate brand strategy requires changes in importance attached to a physical product.	0.695	0.402	0.729	
6. Our corporate brand strategy is decided by the needs of the customers to decide the product differentiation.	0.564	0.553	0.696	
7. Our corporate brand strategy is based on different channels of distribution.	0.205	0.219	0.778	

(7) Project analysis and reliability analysis of the scale of “medication price” for the purpose of measuring medication price

Table 4.13: Medicine price construct and reliability analysis

Questionnaire Questions	Factor Loading	Corrected Item-Total Correlation	Cronbach's $\alpha$ if Item Deleted	Cronbach's $\alpha$
1. A medicine with a higher price shows a higher quality of product to its customers.	0.7896	0.581	0.814	0.829
2. A medicine with a higher price shows a better image of the company it belongs to.	0.7879	0.648	0.801	
3. A medicine with a higher price usually captures the value that is generated in the product.	0.5422	0.565	0.812	
4. Our firm customises price by value that is perceived by our customers.	0.5219	0.444	0.822	
5. Our firm customises price by distinguishing customers who pursue high values and customers with strict budgets.	0.4377	0.534	0.812	
6. Our firm customises price by offering coupons, regional prices, limited consumption or negotiatory prices to a specific group of customers.	0.7374	0.444	0.829	
7. Our firm customises price according to the characteristics of the customers.	0.7926	0.670	0.794	
8. Our firms customise price according to the trading characteristics.	0.5919	0.689	0.792	
9. Our firm pays considerable attention to effective publicity and communication while operating bulk buying/discounts.	0.7896	0.404	0.824	

## 4.6 Main Survey

### 4.6.1 Targeted Respondents and Collection Procedure

Following the development of the measurement scales, a main questionnaire survey was conducted with pharmaceutical companies in Taiwan. In this section, the target respondents and the data collection procedure in this research will be discussed.

#### **4.6.1.1 Targeted respondents**

The targeted participants of the main survey were managers (marketing managers, sales managers, general managers and business executives) from the pharmaceutical industry in Taiwan. The pharmaceutical companies were chosen because it was argued in the previous literature that a firm's corporate reputation has a huge impact on its financial performance (Sobol and Farrell, 1988; Deephouse, 1997; Brown, 1997; Roberts and Dowling, 1997; Caruana, 1997; Sabate and Puente, 2003). However, in the relationship between a firm's reputation and its performance, there are some issues regarding how each strategist sets and generates their segmentation and positioning strategies. Therefore, the respondents for this study needed to have experience in setting brand strategies which related to several strategies of corporate reputation. Such experience was held by the Taiwanese respondents in this study. The respondents were asked questions regarding the effects of the uses of corporate reputation on brand image strategy setting.

#### **4.6.1.2 Data collection procedure**

The researcher started the procedure by contacting a relevant professional association to ask for its support and more information about the Taiwanese pharmaceutical companies. The Taiwanese BNHI (Bureau of National Health Insurance) provides a list of contacts of its association members. The researcher contacted all the

pharmaceutical companies in the Taiwanese pharmaceutical industry in the database to inform them about this research project and to confirm their current addresses.

Since it is not possible to collect data from all managers, the researcher employed a sampling method to initiate a sample of pharmaceutical managers. However, because of data protection, it is likely that the pharmaceutical companies may not allow the researcher to access the staff database. In this case, the research could neither identify nor enumerate sampling units. Therefore, a probability-based sampling could not be conducted. However, when a probability-based sampling cannot be conducted due to some limitations, a non-probability sampling technique is considered to be an appropriate choice although the generalisability of statistical results can be relatively limited (Baker, 2002; Denscombe, 2002).

In this study, a judgement sample as a non-probability-based sampling technique was used. The researcher plans to distribute a questionnaire to pharmaceutical managers because they tend to be familiar with brand strategy decision making within the pharmaceutical industry.

It is noted that this sampling method may be biased toward the respondents (brand managers) because they may evaluate managers' strategic decisions on the adoption of the uses of corporate reputation based on a firm's strategic use of its intangible assets rather than as a consequence of a firm's operation. However, the chosen group of brand managers were desirable for this study because it was the group that could estimate the effects of the uses of corporate reputation in pharmaceuticals on brand

image strategy. Moreover, it was one of the most accessible groups of respondents, which could help to facilitate the survey process.

The 61 probability selected samples (of the 200 overall targeted respondents) were collected from an online survey and are anonymous. Appendix 5 presents the targeted respondents and their company background information (i.e., firm history, firm size, position of the respondent in the company, and service the company provide).

#### **4.6.1.3 Sample size**

The researcher used confirmatory factor analysis (CFA) for finalising the scales (de Vellis, 1991). A minimal sample size for CFA is usually recommended to be more than the number of covariances in the input data matrix (Netemeyer et al., 2003; Hair et al., 2006). The researcher plans to use PLS (Partial Least Squares, one of the structural equation modelling software) to perform CFA. However, an empirical ratio of at least five observations per parameter has also been proposed (Bollen, 1989; Joreskog and Sorbom, 1989). Floyd and Widaman (1995) assert that a sample size of around five to ten observations per parameter is likely to be sufficient. Based on the discussion above, the sample size in this study will be approximately 60.

Therefore, PLS was chosen because of small sample size of this research. However, as identified 173 companies, the target respondents are managers in Taiwanese pharmaceutical industry, and the whole population of the target respondents is around 200. Therefore, this small sample size was considered and tested by suitable software designed for a small number of respondents, namely PLS.



Table 4.14 illustrates the study's overall domain, including corresponding items.

Table 4.14: Details about questionnaires and respondents

<b>Number of distributed questionnaires to managers</b>	200 sets
<b>Number of questionnaires received from managers</b>	61 sets (30% response rate)
<b>Usable questionnaires</b>	61 sets
<b>Corporate history less than 30 years</b>	65%
<b>Corporate history more than 30 years</b>	35%
<b>Size more than 100 employees (include)</b>	65.57 %
<b>Size less than 100 employees (exclude)</b>	34.43 %
<b>Local company (manufacturing + sales )</b>	43.37 %
<b>Original company or dealers in European pharmaceuticals</b>	15.66 %
<b>Original company or dealers in American pharmaceuticals</b>	18.07 %
<b>Original company or dealers in Asian pharmaceuticals</b>	22.89 %
<b>Turnover over 16.67 million US dollars</b>	25%
<b>Turnover between 1.67 and 16.67 million US dollars</b>	52%
<b>Turnover below 1.67 million US dollars</b>	23%

\*(1 British pound = 1.45 US dollars = 50 TWDollars)

The quantitative questionnaires were collected through an online questionnaire website. At the beginning of the questionnaire, respondents specified the background information of their firm, including company history, company size, and the service each company provided. Of the 61 respondent companies, 14 (23%) had company turnovers below US\$1.67 million, 15 (25%) had company turnovers over US\$16.67 million, and 32 (52%) had company turnover between US\$1.67 million and US\$16.67 million. In addition, in all companies, staff numbers were fewer than 3,000 people. Therefore, 75% of the surveyed companies were categorised as small to medium-sized enterprises (which is the main component of the Taiwanese business environment). Moreover, 66% of surveyed companies had fewer than 100 people, 21 (34%) had more than 100 people, and 7 (11%) had an even number of 300 staff members.

## **4.6.2 Data analysis techniques**

Following the main survey, confirmatory factor analysis (CFA) was performed on the main survey data. The following sections will discuss the data analysis techniques which the researcher plans to apply to this study.

### **4.6.2.1 Confirmatory factor analysis (CFA)**

Following the main survey, purified measurement scales were to be subjected to confirmatory factor analysis (CFA) as a method to finalise the scales (de Vellis, 1991). CFA was performed on the main survey data (Gerbing and Anderson, 1988; Diamantopoulos and Siguaw, 2000; Hair et al., 2006). According to de Vellis (1991), CFA is used to confirm that the number of latent variables underlying the items corresponds to the number that the researcher expects. Moreover, “if the factor analysis ‘discovers’ precisely the item groupings that [researchers] intended when creating the items, [the researchers] will have strong confirmation of their initial hypothesis concerning how the items should relate to one another” (de Vellis, 1991, p. 109).

In this study, CFA was used for testing whether the pre-specified relationship predicted by the theory is presented in the data (Huang, 2001; Hair et al., 2006). Like EFA, CFA can be used to reduce the number of items (Netemeyer et al., 1996). However, the researcher employed CFA after EFA had been performed on the data obtained from the pilot study. This is because EFA can provide insight about the potential dimensionality by revealing items that load poorly on an intended factor or load highly on more than one factor, whereas CFA can assess both the quality of a

factor solution and the specific parameters which constitute a model (Kelloway, 1998). Generally, CFA is used as an assessment of construct validity<sup>11</sup> to ensure that the theoretical meaning of a construct is empirically captured by its indicators (Steenkamp and van Trijp, 1991). This basis is very important for theory testing and development (Steenkamp and van Trijp, 1991).

Following recommendations by Anderson and Gerbing (1982, 1988), the researcher conducted model-testing in two stages. The first stage was the development of a measurement model. This was to confirm the relationships between the construct and its indicators. The second stage involved the testing of the model to show the causal relationships between the latent constructs (Anderson and Gerbing, 1982; Diamantopoulos and Siguaw, 2000).

Testing the measurement model was assisted by CFA (Diamantopoulos and Siguaw, 2000). When the measurement model was estimated using CFA, the fundamental dimensions which affect the validity of a construct were assessed (Anderson and Gergin, 1988). The dimensions of construct validation include: unidimensionality of a construct; reliability; convergent validity; discriminant validity; and nomological validity<sup>12 13</sup> (Peter, 1981; Anderson and Gergin, 1988, Steenkamp and Trijp, 1991). The research used PLS, structural equation modelling software, to perform CFA.

#### **4.6.2.2 Model testing**

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<sup>11</sup> More details about an assessment of construct validity will be provided later in section 4.6.2.3.

<sup>12</sup> The definition of several types of validity will be provided later in section 4.6.2.3.

<sup>13</sup> More details about the assessment of validity can be found in Section 4.6.2.3.

Anderson and Gerbing (1988, p.416) state that “after a measurement model has been estimated, a researcher should assess how well the specified model accounted for the data with one or more overall goodness-of-fit indices”. In order to test how well a measurement model fits a set of observations, researchers are recommended to assess the model’s overall fit. The aim of a model’s overall fit is to confirm that consistency of a theoretical model and confirm that the estimated model is based on the observed values (Diamantopoulos and Siguaw, 2000; Hair et al., 2006). The model’s overall fit is evaluated on the basis of both incremental and absolute goodness of fit measures. Although, there are many statistics developed to test the overall fit of a model (Joreskog and Sorbom, 1989), none of them alone can provide an absolute assurance of model fit. Each measure can be superior to the others under different conditions such as “sample size, estimation procedure, model complexity, violation of underlying assumptions of multivariate normality and variable independence” (Diamantopoulos and Siguaw, 2000, p.83).

The goodness-of-fit measures indicate the extent to which the sample covariances are reproduced by the observed covariance or correlation matrix (Hair et al., 2006). The researcher used all the indices to select the best latent variable for the model as suggested by modification indices and fit indices (Gerbing and Anderson, 1988; Kohli et al., 1993). The final variable that has the appropriate indices was selected. Then, the average value of each item was used to represent the latent variables. Afterwards, the latent variables were used in the hypotheses. Composite score (i.e. summated score), which is the average of value of each item, was used to represent the latent variables used in the hypotheses testing (Netemayer et al., 2003; Hair et al., 2006).

#### **4.6.2.3 The assessment of reliability and validity**

According to the research processes of this study, after the content and the relevance of the multi-item scales had been refined on the basis of qualitative and quantitative data gathered from the exploratory research and the pilot study, the scale was validated on the basis of the quantitative data obtained from the main survey. Following the main survey, confirmatory factor analysis (CFA) was performed on the main survey data, followed by the model testing (Gerbing and Anderson, 1988; Hair et al., 2006; Diamantopoulos and Siguaw, 2000). Based on the research design, the assessment of reliability and validity during these processes is discussed in this section.

Several marketing researchers (e.g. Jacoby, 1978; Churchill, 1979; Peter, 1979; 1981; Zaichkowsky, 1985; Lichtenstein et al., 1990; Kotabe, 1990; Melewar; 2001) emphasised the need for attention to be paid to investigating the validity and reliability of measures used. Validity refers to “the degree to which instruments truly measure the constructs which they are intended to measure” (Peter, 1979, p.6), whereas according to Peter (1979, p. 6), reliability is a necessary condition for validity as it ensures that “measures are free from error and therefore yield consistent results”. In order to assess reliability, coefficient  $\alpha$  is the basic statistic for determining the reliability of a measure (Churchill, 1979).

As discussed earlier (See Section 4.5.5), this research assessed the reliability (internal consistency reliability) by measuring the coefficient alphas as well as item-to-total correlations. The coefficient  $\alpha$  is widely used as a measure of reliability (de Vellis,

1991). A coefficient  $\alpha$  check was initially applied to quantitative data gathered from the pilot study. Theoretically, the coefficient  $\alpha$  is concerned with “the degree of interrelatedness among a set of items designed to measure a single construct” (Netemeyer et al., 2003, p. 49). The coefficient alphas were computed as a mean to check for the reliability of the measurement scales (Churchill, 1979; de Vellis, 2003). Based on a standard of reliability, values of  $\alpha$  equal to or above 0.70 indicate reliability (Nunnally, 1967; Nunnally and Bernstein, 1994; de Vaus, 2002; Hair et al. (2006). While an item-to-total correlation was above 0.35, the question needed to be corrected (Saxe and Weitz, 1982).

In addition, to finalise a measurement scale, it is very important that measurement scale validity also be investigated. Scale validity refers to the extent to which an operational measure truly reflects the concept being investigated or the extent to which the latent construct is the underlying cause of item co-variation (de Vellis, 2003; Peter, 1981). In line with existing research (e.g. Peter and Churchill, 1986; Melewar and Karaosmanoglu, 2006), the types of validity which will be evaluated in this study are: (1) content validity; (2) face validity; (3) convergent validity; (4) discriminant validity; (5) nomological validity; and (6) ecological validity (see Table 4.15).

Table 4.15: Types of validity assessment in this study

<b>Types</b>	<b>Definitions</b>
Content validity	refers to the extent by which the elements of measurement scales are relevant to, and representative of, the targeted construct for a particular assessment purpose
Face validity	refers to an assessment of how adequately items of a scale measure the construct of interest
Convergent validity	refers to the extent to which independent measures of the same construct converge or are highly correlated

Discriminant validity	refers to the extent to which measures diverge from other operationalisations from which the construct is conceptually distinct
Nomological validity	refers to the examination of the hypothesised relationships between constructs and the empirical link between indicators and their underlining dimensions
Ecological validity	refers to the degree to which the behaviour observed in a study reflect the behaviour that actually occurs in natural settings (Denscombe, 2002).

Source: Based on the literature (e.g. Peter, 1981; Peter and Churchill, 1986; Denscombe, 2002; Morgan et al., 2004; Homburg and Furst, 2005; Netemeyer et al., 2005)

In this research, content validity and face validity of scale were examined in the second step of the scale's development procedure (Figure 4.2). Content validity evaluates the overall validity of the measures used in the data collection instrument (Peter and Churchill, 1986). It is used to assess the extent by which the elements of measurement scales are relevant to and representative of the targeted construct for a particular assessment purpose. Face validity is used to assess the extent by which items on a scale adequately measure the construct of interest. In order to assess content validity and face validity, the list of domains and examples of scale items were shown to the interviewees. Respondents were asked to give opinions on whether they agree with the lists and provide specific reasons, if any.

Convergent and discriminant validity were assessed after the confirmatory factor analysis had been performed (Anderson and Gerbing, 1988). In other words, the convergent and discriminant validity were assessed when testing the measurement model. Convergent validity refers to the extent by which the latent variable correlates to indicators pre-specified to measure the same latent variable (Peter and Churchill, 1986; Anderson and Gerbing, 1988; Steenkamp and van Trijp, 1991). It can be assessed by examining whether the factor loadings of items (i.e. pattern coefficient) in

their respective constructs are large<sup>14</sup> and statistically significant<sup>15</sup> (Anderson and Gerbing, 1988; Joreskog and Sorbom, 1996).

The presence of discriminant validity is indicated when the correlation between two constructs is significantly lower than 1.00 (Anderson and Gerbing, 1988). According to (Joreskog and Sorbom, 1996, p. 416), discriminant validity is assessed for each pair of constructs at a time “by constraining the estimated correlation parameter between them to unity (1.0) and then performing a chi-square difference test on the values obtained for the constrained and unconstrained models”. A significantly lower chi-square value for the model in which the correlations between latent variables are not constrained to unity indicates that those latent variables are not perfectly correlated and that discriminant validity is achieved (Bagozzi and Phillips, 1982)

Convergent and discriminant validity are subtypes of construct validity. A validity of a construct is an essential condition for further theory testing and development (Carmines and Zeller, 1979; Steenkamp and van Trijp, 1991). Construct validity (Cronbach and Meehl, 1955 cited in de Vellis, 1991, p.47) is concerned with the theoretical relationship of one variable to other variables. Validity of a construct implies the degree to which the construct is empirically captured by its indicators (Steenkamp and van Trijp, 1991). According to several authors (e.g. Peter, 1981; Gerbing and Anderson, 1988; Steenkamp and van Trijp, 1991), apart from the convergent validity and the discriminant validity, in order to claim that a construct is

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<sup>14</sup> Factor loading which is equal to or greater than 0.6 is considered the minimum level at which convergent validity could be suggested (Bagozzi and Yi, 1998)

<sup>15</sup> Any factor loading whose corresponding t-value is greater than 1.96 for 95% confidence level will be considered statistically significant.



valid the following criteria should also be assessed: unidimensionality of a construct; reliability and nomological validity.

When the measurement model is estimated using CFA (Chau, 1997; Diamantopoulos and Siguaw, 2000; Huang, 2001), the unidimensionality of a construct, reliability and nomological validity can be also assessed. The researcher used EFA (after the pilot study) and CFA (after the main survey) for testing the unidimensionality of a scale. According to Anderson and Gerbing (1988), the unidimensionality of a construct should be achieved initially before any attempt at further theory testing (Anderson and Gerbing, 1988) because it implies that the multiple indicators of a construct are internally consistent and externally distinct from other measures. CFA ensures that a construct is unidimensional, so that it is composed of a set of logical (theoretical) indicators (Gerbing and Anderson, 1988; Steenkamp and van Trijp, 1991; Hair et al., 2006). It permits the computation of the criteria for assessing convergent validity, discriminate validity, as well as nomological validity.

As discussed earlier, given acceptable convergent and discriminate validity, CFA as a test of structural model then constitutes a confirmatory assessment of nomological validity (Anderson and Gerbing, 1988). Nomological validity refers to the examination of the hypothesised relationships between constructs and the empirical link between indicators and their underlining dimensions (Peter, 1981; Peter and Churchill, 1986). In short, it concerns the overall fit of a model. Lagas (2000) and Steenkamp and van Trijp (1991) suggest the utilisation of goodness-of-fit indices in order to assess nomological validity.

In addition, ecological validity is considered in this study. Melewar and Karaosmanoglu (2006, p. 847) state that “any theoretical or conceptual argument needs to be tested in actual application” (also See Allen and Janiszewski, 1989). A study which does not represent the actual procedure of a real-life situation is seen as being low in ecological validity, whereas a study which can be generalised beyond the setting in which the study was carried out is seen as high in ecological validity (Brewer, 2000). Ecological validity is the degree to which the behaviour observed in a study reflects the behaviour that actually occurs in natural settings (Denscombe, 2002). It refers to how well findings from a study are linked to the social environment in which they occurred (Denscombe, 2002). For a study to have ecological validity, the methods and setting of the study must approximate the real-life situation that is under investigation (Brewer, 2000). Ecological validity is closely related to external validity, which states the limits of generalisation that operationalisation imposes (Payne and Payne, 2004). However, a study that has ecological validity may not have external validity because they are independent (Brewer, 2000; Shadish et al., 2002). Nevertheless, improving the ecological validity of a study typically improves the external validity (Brewer, 2000; Shadish et al., 2002).

The aim of this research is to develop a better understanding of branding strategy decisions in pharmaceutical companies through examining three dimensions of the uses of corporate reputations and for the manager to put these into their strategy decision considerations. The researcher has reviewed the existing literature on the uses of the corporate reputation concept and the effects of brand image strategy. Following this, the researcher has proposed a conceptual model of the uses of

corporate reputation in pharmaceutical companies based on the literature. The researcher plans to empirically examine how the effects of the uses of corporate reputation are in practice, in comparison to its theoretically defined effects. By examining the brand managers' views, the researcher will demonstrate how each dimension of the uses of corporate reputation and its effects have been explained and perceived in practice from the pharmaceutical brand manager's perspective. In line with Melewar and Karaosmanoglu (2006), the researcher believes that this approach will enable the researcher to operationalise the proposed conceptual framework by examining it in an "ecologically valid environment" (Smith et al., 1998, p. 64) rather than at a theoretical level. The findings of this study are linked to the real-life social environment in which they occurred, which means this study has ecological validity (Denscombe, 2002).

#### **4.7 Hypothesis Testing**

After testing the scale for reliability and validity, the hypothesised relationships will be assessed. PLS (Partial Least Squares) will be used at the expense of structural equation modelling (SEM), even though SEM is appropriate for simultaneously testing structural relationships among latent variables.

The researcher plans to employ PLS, in order to test the research hypotheses. The researcher will use a regression model to test the model, which consists of three independent variables: value creation, strategic resources and corporate

communication; one moderator variable (medicine price); and three dependent variables (brand segmentation, brand differentiation and brand positioning).

As suggested by Baron and Kenny (1986), in order to test for moderating effects, the first step of hypothesis testing is to find the significant level for the relationships between the independent variables and the dependent variable. The second step is then to find the significant level for the relationships between the moderator variables and the dependent variable. Subsequently, the moderator hypotheses are supported if the interactions between moderator variables and independent variables are significant.

## **4.8 Summary**

In summary, this chapter has discussed the research design of the study and the detail of each stage has been presented. A mixed-method, with a quantitative basis, is employed in this study. In order to develop measurement scales for constructs in the model, the procedures for developing measurement suggested by Churchill (1979) are mainly employed.

The research design incorporates information from three stages of data collection. First, the qualitative research (exploratory research) will be conducted – these are the in-depth interviews. This phase is expected to provide more insights into the subject of interest, and to support the design of the research instrument. Then, the first draft of the qualitative questionnaire (see Appendix 3) will be designed based on the items

generated from interviews and existing literature. After that, a pilot study will be conducted in order to purify the measurement. Subsequently, questionnaires containing purified items from this step will be edited and prepared for the main survey. The results from the survey will then be used to test the hypotheses.

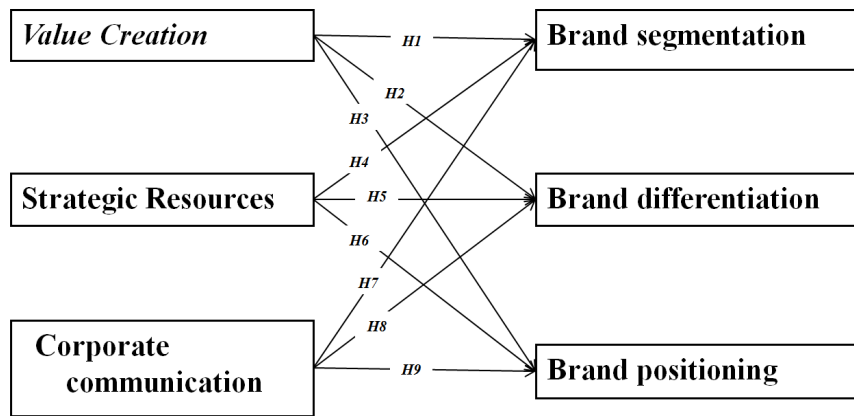
This research attempts to examine the relationship between firms' use of corporate reputation and their brand image strategy. During the decision-making process, firms' use three types of activities related to corporate reputation—namely value creation, strategic resources and corporate communication—to help inform their brand image strategy. Therefore, in line with the quantitative research presented previously, this study hypothesises that the three types of corporate reputation positively influence three types of brand image strategy (brand segmentation, brand differentiation and brand positioning). Table 4.16 provides a list of the summarised hypotheses and the research framework.

**Table 4.16: Summary hypotheses and research framework**

<b>H1</b>	Value creation, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand segmentation strategy.
<b>H2</b>	Value creation, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand differentiation strategy.
<b>H3</b>	Value creation, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand positioning strategy.
<b>H4</b>	Strategic resource, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand segmentation strategy.
<b>H5</b>	Strategic resource, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand differentiation strategy.
<b>H6</b>	Strategic resource, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand positioning strategy.
<b>H7</b>	Corporate communication, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand segmentation strategy.
<b>H8</b>	Corporate communication, as one dimension of the uses of corporate reputation, has a positive impact on a firm's brand differentiation strategy.
<b>H9</b>	Corporate communication, as one dimension of the uses of corporate reputation, has a

positive impact on a firm's brand positioning strategy.

**H10** Medicine price moderate the relationship between the uses of corporate reputaiton and brand image strategy.



# **CHAPTER FIVE: DATA ANALYSIS AND RESEARCH FINDINGS**

## **5.1 Introduction**

Firstly, this chapter presents the qualitative result. Content analysis was used to analyse the 14 interview findings. Secondly, this chapter provides an explanation of how the quantitative study was completed by explaining the data analysis and results. It details the process of the data collection and the results. As discussed in Chapter 4, this involved a multi-stage procedure. The data examination and the screening to prepare for subsequent quantitative analyses are presented first, followed by the descriptive statistics. A reliability test was performed on the measurement scales to ensure that they achieve an acceptable level of reliability for further analysis. The resulting solutions were then re-assessed using confirmatory factor analysis. Finally, PLS (Partial Least Squares) was used to test the hypothesized relationships between the research constructs as postulated in the conceptual model, and to assess the overall goodness-of-fit between the proposed model and the collected data set. Conclusions are drawn in the last section.

## **5.2 Qualitative Interview Findings**

### **5.2.1 Interviews about the Uses of Corporate Reputation**

### 5.2.1.1 Interview results on value creation

The experts generally clearly believe that value creation is important. Experts discussed the importance of the ability to create value for the uses of corporate reputation in pharmaceutical companies as follows:

*“We can discuss the value of brand from two different aspects. Brand value could be considered as a brand reputation that people recognize. Employees’ commitment toward this company, in fact, is actually the strength to support a brand value from inside out. By saying employees’ commitment, I mean that workers and their family members must be proud of this company. One company can make a brand name more famous by stretching its tentacles to different industries. Take our company as an example; our company might want to invest in [the] real estate industry. By expanding a company’s size like this, it is possible that this company will eventually become a conglomerate. I have gone too far. What I really want to say is that a company with a good reputation will always attempt to expand its size.” [Manager in company #F]*

*“What we value the most is the remedial effect of the medicine. It is fair to say that medication from original pharmaceutical companies is usually more expensive. Lots of people believe that an expensive drug guarantees its effects. However, I focus more on the efficacy of the medication. Our company is now one of the biggest pharmaceutical companies in Taiwan, and manufactures drugs with better quality. Good quality of medicine and affordable price are the two most important factors for a pharmaceutical company to promote its products. A pharmaceutical company needs to firstly make one product affordable for customers. Besides, it needs to provide medication with good quality to its customers.” [Manager in company #A]*



Additionally, the value created by the firm helps a firm to establish their marketing plan. The following comment of an interviewee reflects these points:

*“A: A pharmacist could persuade a customer to buy one product by saying this product is manufactured by a famous pharmaceutical company. A pharmacist who says this is not standing on the patient’s side. An original or big pharmaceutical company tends to convince customers by its company image and value of performance. The medication which comes from a big, famous company is always more expensive than medication produced by pharmaceutical companies in Taiwan. For doctors and patients, what really matters about a medicine is its remedial effects, not its country of origin. That is, medicine produced by a local company can be as good as one manufacture overseas. International pharmaceutical companies spend lots of money on building company images compared with pharmaceutical companies in Taiwan. Our company focuses on more than that. The reputation of our company in markets represents the image of our company. Marketing is the next step for the biggest pharmaceutical companies.” [Manager in company #A]*

Another conclusion to be drawn is that, several different aspects of value can be created for the customers based on different customer characteristics. The following statement illustrates this:

*“B: I suppose that four aspects are all included. But different companies may emphasize disproportionately on these aspects. The sales language has been recognized in medication industry since the 1970s and 1980s. When saying ‘value creation’, each company will always refer to the same aspects with only differing emphasis on each aspect. When talking about company reputation, headquarters will focus on general practice. It could take a lot of effort for one company to take care of general practice. It costs a large proportion*

*of operating expense. Our company has a control over the variety of products, since we owned some ancient prescriptions. Procurement departments in hospitals will check this company's website when having trouble on medicine purchase. This could demonstrate the superior reputation that our company has established in the past eighty years.*" [Manager in company #F]

However, they had different opinions about which type of value creation is the most important. The most commonly given answer, functional value created by their firm, is the most popular strategy in the pharmaceutical company. The following statement illustrates this:

*"The offshore pharmaceutical companies, compared with local pharmaceutical companies in Taiwan, give less focus on the value of medical efficacy. The offshore pharmaceutical companies, instead, may focus more on customers' thoughts toward their products. Their marketing strategy emphasizes the value of experience and happiness. That is, they put users as the first priority. In most situations, the sale of one medicine relies heavily on doctors' recommendations for a product. This is because doctors are those who really contact with patients directly. By convincing patients to buy medicine, doctors need to prove the medicine is effective. Doctors can introduce the efficacy and some weaknesses of one medical product and speak about the benefits and effects that this medical product can bring to the patients. It is not necessary to mention the value of the company or product as people are all familiar with the power of a famous brand name. Pharmaceutical companies in Taiwan could improve the image of their products by connecting the company to socially-economically disadvantaged groups or charity institutes. For example, there are several charity groups that provide financial and emotional support for patients with cancer. In my opinion, I suppose the efficacy is the most important element for a good medicine."* [Manager in company #I]

On the other hand, experiential value creation is an important aspect in forming the corporate reputation of Taiwanese pharmaceutical companies. The following statement illustrates this:

*“A: This step [the experiential value creation], in my opinion, is the value of experience and happiness to our company, and it will definitely affect the value creation. One thing happened to me which could be an example that explains what I just said. I attended my 50<sup>th</sup> primary school reunion one Saturday, and I talked to my teacher on that day. I passed my name card to my teacher to introduce the business I am in and the company I am running. He said, I knew this company had reputation for its great ointment. This is to prove its technical strategy using empirical evidence works very well to create its good company image in its ointment having a good curative effect. The ointment works very well. Of course this is maybe you can say that this is how functionality works on this strategy.” [Manager in company #F]*

#### **5.2.1.2 Interview results on strategic resources**

The research undertaken has revealed that a firm with a good reputation has some strategic advantages. It is agreed by the experts that the use of corporate reputation as a strategic resource is important. A good corporate reputation attracts good salespeople, helps a company to launch its new products into the market, helps a firm to merge with other smaller pharmaceutical producers or to expand the market, to cooperate with and add more sales channels to the company and aids in raising funds. The following statements illustrate this:

*“It’s all about products. Reputation is something that a company must emphasize. According to my past experience, a successful*

*marketing requires a good integration between production department and sales department. A group of strong salesman could be a crucial part for our company to promote our products successfully. Characteristics of a good salesman have changed over time. A person, who speaks articulately, has good social skills and loves drinking used to be considered as a good sales person. However, the quality that makes an individual a top sales person is totally different from it used to be. This is because the way of business negotiation has changed. I can assure you that you've found the right sales person and he is doing great in this position."*  
[Manager in company #E]

*"In my opinion, a company with a good reputation is more likely to succeed in introducing the market to their new product. From sales department's point of view, product launch can easily impress the market if the product is from a reputable company. The good first impression of a product may come from customers' expectations. Once a company's reputation is established, the value of the brand will definitely benefit the stated four strategic resources.... The potential meaning of using the corporate reputation as a strategic resource could be expanded in breadth and depth beyond its literal meaning. From the salesman's point of view, new products are more likely to be popular when we promote our product on a regular time frame and a good company image or reputation."* [Manager in company #F]

*"I suppose that good company reputation can boost product sales and push products into markets more quickly. A firm's reputation can affect other substantial elements of marketing strategy, including human resources, retailers and product price."* [Manager in company #I]

*"Our company owns a few subsidiaries. It was established in 1945 as a pharmaceutical company. Recently the company decided to use*

*the pharmaceutical product equipments to produce health supplement food with medication standard and high quality. Along with the reputable medicine product for a long history, it is easier for the health supplement food to launch into the market. Now the health supplement food produced is expected to be on the shelves of Carrefour.” [Manager in company #A]*

*“A company needs to raise a huge amount of funds to expand its size. To be frankly, funds are the single most important element for a company to expand. A company with a good reputation may consider seeking for assistance from financial institutes.” [Manager in company #A]*

Additionally, a good corporate reputation can effectively enhance sales and marketing, and also enable a new product’s entry to the market. It makes the firm easier to sell products to its customers. The following statement from a Japanese company Taiwan branch’s sales manager illustrates this:

*“The marketing strategy of a company must be effective and feasible. A big company can use its reputation to promote its products in markets. A big company with good reputation can always control the markets. A big company can take advantage from availability of huge amount of funds, professionals in the company and a big group of customers. A small company without good reputation can find it difficult to promote its products in markets.” [Manager in company #B]*

Moreover, a good corporate reputation also makes it easier for the firm to sell products to distributors.

*“A company can use customer loyalty as a part of a marketing strategy. I can rely on the reputation of my company. My company is attractive to distributors because of its good reputation. In other words, distributors will be more confident and interested to do business with a company with a good reputation. My company can also benefit from the human resource in distributors. There are a lot of top salesmen in retail shops. My company can promote its products successfully by just offering salesmen commission on the products they sell. Thus, it is significant to co-operate with a powerful retailer in the first place. And I will then make my products more popular and more attractive to the market by presenting a good reputation and good image of my company.” [Manager in company #B]*

### **5.2.1.3 Interview results on corporate communication**

The research undertaken has revealed that a firm’s corporate reputation encourages greater commitment from employees and internal communication within the company.

The following statement illustrates this:

*“I have spent my most valued 30 years in this company. There must be a reason for me to stay for such a long time. And this reason is the commitment to this company. I was proud to say Taiwan Biotech Co. in each time I am asked the company I work for. I am not proud of my company because of the easy money I earned. I am proud of company because I stay in a good company.” [Manager in company #A]*

Moreover, a firm’s corporate reputation can not only be used to communicate with its stakeholders but also builds the relationship between the firm and its customers. That is, the corporate reputation also builds external communication with the customer. An example was given by one of the experts talking about how a firm with a good

corporate reputation can influence its customers and also make customers have a better perception of the company and its FABs (Features, Advantages and Benefits):

*“Employees’ commitments toward the company and good communication between company and customers are the most important factors for a successful company. The sale of products relies heavily on good communications between company and customers.” [Manager in company #A]*

*“Most pharmaceutical companies can produce medicine with similar effects to METAPOLITAN, which is used to treat diabetic patients in endocrinology and metabolism departments. One doctor could meet several salesmen from five or six different companies to promote the medicine for diabetic patients. What really affects doctors’ decisions on choosing the medicine is the reputation of the pharmaceutical company. Company reputation can come from customers’ trust in products of this company, and customers trust is established on the quality service that a company provides.” [Manager in company #A]*

*“The ways we use to communicate with consumers includes building a relationship between company and consumers. A well-reputed company gains more trust from the customers. This helps to strengthen the relationship between the company and the customers. If you have a strong relationship with customers, you will have more resources to market your products and achieve your sales target.*

*The next step is to send the message to customers. The pharmaceutical company will promote its products and communicate with customers using a professional medical conference, an academic research result presentation or a seminar on product introduction when launching a new product. No matter just for product promotion or launching a new product, you can still send a message to customers. These communication methods can be*

*used in different circumstances and markets.” [Manager in company #H]*

One way that a good corporate reputation can tighten the relationship between the company and its customer is stated below:

*“For a company with a good reputation, it is able to attract loyal customers to participation into your marketing events. However, this will not work for a small company. A well-known company with a good name has great fundamentals and a strong relationship to interact with customers using an indirect communication and marketing method, such as a professional medical conference. In a medical conference, there will be professionals and scholars invited to make a presentation on academic topics. This is placement marketing for promoting the product indirectly. Also, customers will receive messages from an academic research result presentation delivered by respected international scholars as an indirect communication method.” [Manager in company #H]*

However, some time is needed for a customer to recognize a firm as a “well-reputed” firm:

*“A company with a good reputation can always influence customers’ decisions. But it could take a lot of effort for the company to establish its reputation. The establishment of company reputation could require 10 or 20 years of hard work.” [Manager in company #B]*



Furthermore, some firms sell their stock in the market. By advertising a company's core values, a firm can enhance its market price. The following statement illustrates this:

*“TTY BioPharm can be used to illustrate this idea. The stock price per share of this company has increased from 50–60 dollars to more than 100 dollars, and hit its peak. This pharmaceutical company specialises in producing anti-cancer medication and protein biotech. According to the director, the commercial advertisement of this company keeps emphasizing their hard work on studying the treatment for cancer. The findings of their study on cancer are already a breakthrough, although the discovered treatment is not promised to be also effective on the human body. However, once the treatment, which was introduced in the commercial, is proved to be effective for patients with cancer, the company will get enormous success. In order to show their findings in the study of cancer, one of this company's factories was opened for customers and visitors last Friday. The market share of this company is big. This resulted from their efforts on promoting their findings related to the cancer study. This improved the image of the company, and lots of share holders and investors will feel more confident about the future of this company. Shareholders with this company may get a \$2 dividend for a \$200 share from this company. But they may get \$2 dividend for a \$20 share from another company. Will TTY BioPharm still be attractive for the investors? Yes, it will. Some findings of the company's study are at the forefront. The financial report of this company has been revealed publicly, and this report has passed more positive messages to the customers. There could be more and more people investing in this company because of this. Market share of this company in cancer treatment is big.*

*Communication is a bridge between the company and our customers. This bridge it meant to strengthen the communication between the company and our customers. In short, the reputation of our company is established on the trusts from all customers in the past*

*80 years. These customers could be a powerful resource for us. To utilise the resource, our company needs to understand marketing strategies that different customers used. Some medicine retailers like to create a homey atmosphere for customers, while some distributors want to show a professional image and trophies to their consumers. The idea of making our products sweet came from retailers' suggestions. Salespeople need to find out different strategies to do business with different retailers on a daily basis. There could be plenty of marketing strategies that salespeople can use. Our products can only differentiate market segments. Rhodiola with three stars could be an example for a market segment. The medical product has some features which are different from other products'.*" [Manager in company #F]

From the above, we know that the communication with customers is important; moreover, the respondent stated that:

*"Our firm's corporate reputation with a good manufacturing history, a reputable product experience, helps the communication with our customers."* [Manager in company #F]

## **5.2.2 Interviews about Brand Image Strategy**

### **5.2.2.1 Interview results on brand segmentation**

As was argued in the literature review, segment development is important in implementing a firm's brand image strategy. However, segmentation is based on differentiating the needs of the customer. Similar factors of target segments of customers enable managers to implement a strategy, but there are different ways of implementing segmentation within one organisation. According to the manager in

company F:

*A: “I prefer using diseases for market segmentation. I mean that diseases are used for identification of niche products. For example, every patient with cancer will visit an oncology department. This is a good example of using disease for market segmentation because it uses differences between products to introduce a new product. Also, we can use price to create market segmentation such as with OTC products. Furthermore, we can use the national health insurance system to identify niche products for prescription drugs. Moreover, age or sex, male and female, is also a good way to identify niche products. For example, our company has Viagra products for impotence symptoms. We can thus use price or sex to identify our niche products. Therefore, you can apply these niche products as yours and we can also produce these drugs for different sexes and ages. For instance, we are making drugs for alopecia. Not many companies are doing these drugs for those who are worried about getting bald. It won’t be difficult to identify niche products as long as you think about many different factors, not just only one factor.”*  
[Manager in company #F]

However, it is customer oriented/based to implement segmentation strategy, according to several interviewees:

*“They are all customers. The only difference is they present different types of customers. We have to manage these customers based on their characteristics and use these different characteristics for market segmentation.”* [Manager in company #B]

*B: “The product itself can be used for market segmentation. However, that is not the only factor for market segmentation. We can also use customers as a good factor for market segmentation.*

*There are many factors to choose from for market segmentation, including sales and service.” [Manager in company #F]*

Moreover, some companies use different channels of distribution to implement segmentation strategy, such as hospitals, clinics and pharmacies. The following statement illustrates this:

*“Market segmentation can be done via pointing out the difference between its [this company’s] product and other competitors’ products. It is difficult to find complementary medicines for other competitors’ products.... We could probably talk about evidence to prove the product’s advantage. For example, our strategy is to focus on medicines for CV and cardiology. Why do we only choose these two products given so many different kinds of products to choose from? The reason is to focus on our distribution channels. The large corporations have their own hospital channels to promote their products. That is how they can produce the best outcome via proper allocation of their staffs and use of the existing resources. Take Tung Yang as a good example for market segmentation, they did their own research on anti-cancer drugs. This helps them to strengthen their company name for consumers and industry peers, especially on anti-cancer drugs. They thus control the distribution channel and social networks. That is how they achieved market segmentation.”*  
[Manager in company #I]

However, the product manager in company F thinks it is unnecessary to implement segmentation in the beginning when you launch a new product:

*“When you make a strategy, you have to know your position in a market. If you spend too much time in positioning your products in the market, there will be more than 20 manufacturers already making the same products. If you just start the market segmentation*

*strategy, you will have no market for your product. Then you can only rely on customers for market segmentation. Customers will decide whether your product is in a leading role or a supporting role. If your product just plays a supporting role, it will rely on your customers for deciding your market place. Those contracted products mostly play a supporting role. If a medication product plays a leading role, it must be able to cure diseases. For example, if you can manufacture hypertension drugs, you can become hugely successful in the industry. That is impossible. It is because customers have different kinds of hypertension drugs to choose from. Therefore, you have to promote this product in a different way. After spending much time, you realise this product can help patients against stroke. That will be the feature for us to promote this product. This will be a useful product. You have to keep promoting the feature because the hypertension drugs are already too many in the market.*

*I want to summarize the point. Now we know the market positioning strategy for the product and the niche to promote the product. We will know how to position the product in the market. We then use the market position for market segmentation. Then we can think about where the customer is and how the customer will respond to the product.... That is what I say about using customers to position your product for market segmentation.” [Manager in company #F]*

Other interviewees suggested that there are many other factors, such as whether there is a focus on R&D, that decide the type of segmentation. The following statement illustrates this:

*“Tung Yang is a good example of this. Tung Yang is a very unique company. It is never a follower. It is the first pharmaceutical company which successfully manufactured anti-cancer drugs. Its anti-cancer drug is just as successful as Panadol.... However, it continues to focus on this niche product because it has no choice but*

*continues to work on promoting this product. After three to five years, it provides clinical reports regarding new knowledge about cancer, and builds a strong relationship with clinics. Its products become accepted by these clinics. It then makes very good money.... Its total operating profit is about \$500 million. This proves its success with anti-cancer drugs. It has now started to make other medications. However, it is still famous for its anti-cancer drug. It is now in the top 50 small to medium enterprises in Taiwan. It has successfully built its brand name.” [Manager in company #E]*

Besides R&D, different channels of distribution can be the basis of brand segmentation. The following statement illustrates this:

*B: “The distribution channel for these products will be hospitals since the price of our products is relatively high. Hospitals normally can accept products with a higher price range. However, these products won’t be popular for clinics given that the doctor in a clinic is the boss. They care about medication costs. Therefore, they probably won’t use the medicine from an original manufacturer given the price is too high for them.” [Manager in company #E]*

#### **5.2.2.2 Interview results on brand differentiation**

As it was argued in the literature review, to enable a good brand image strategy, brand differentiation has to be applied as well. However, achieving brand differentiation is very difficult in this particular industry. There is a standard procedure (bioequivalence and bioavailability, as explained in the following paragraph) that has to be followed during production in the pharmaceutical industry. Thus in the end it is not possible to distinguish between original and generic products. The following statement illustrates this:

*“It looks like it is simple to start a business in the pharmaceutical industry. The entry barrier will be whether you can successfully make a product or whether you can copy the successful business model and products from the original manufacturer. The key point is to make exactly the same product as the original manufacturer.*

*... If the difference does not exceed a certain level, you conclude that there is no significant difference between these two products but you still cannot claim these two products are exactly the same. It is said that there will be no significant difference and the manufacturing procedure for BE (bioequivalence) and BA (bioavailability) testing is almost the same.” [Manager in company #E]*

Even if it is hard to implement brand differentiation strategy in this industry, there are two ways of implementing brand differentiation strategy: product oriented and customer based. First, the product packaging can make the company image; this can be behind the logic of brand image strategy making. The following statement illustrates this:

*“There are so many things to be done to differentiate your drug products, including dosage, product features, packaging, drug in tablet or liquid form, flavours, clinical evidence and approval certificate by Health Department etc. We can apply and combine these products features and the use of end users to differentiate our brand.” [Manager in company #F]*

*“The product package represents a company’s image. It is not limited to real packaging. A nice looking package of course can attract consumers to buy your products. You don’t want your consumers to complain to doctors about how uncomfortable they are after taking the drug and the package doesn’t look right,*

*including packaging colour fading or cracking. This is all about a company's image. You can also put a photo of charity events funded by your company such as a running event for cancer patients. You can find many charity events or organisations overseas.” [Manager in company #A]*

A common way of differentiation for pharmaceutical products is to make them into different forms of a medical product, such as liquid, tablets or capsules. Different forms of the medicine enable different brand image strategies to be applied. The following statement illustrates this:

*“No one will care about brand differentiation if your drugs and other competitors' drugs are both within legal limits. However, there are definitely differences between your products and others. The only job is just you have to know what the difference is and how you can show the brand differentiation to your consumers. For example, if you feel like making a drug as a tablet, capsule or film coating and if is not easy to get the drug to a certain feature, you then turn to make the drug in liquid form, such as syrup or injections. However, a drug in liquid form is normally unstable. That is what you can use to promote your drug, just like using a slogan 'our product as a tablet is better and stable'.” [Manager in company #E]*

In addition to packaging, some creative R&D combine two ingredients into one tablet to enable the consumer to use the medical product more easily – thereby creating a differentiation:

*“I don't know whether you have noticed that few of the modern drug products contain only one ingredient. Most of the modern drug products tend to combine two ingredients called a 'combo'. Take*



*hypertension drugs as an example. Actually a diuretic can be used to cure hypertension. How do we combine a hypertension drug and a diuretic to make a good hypertension drug? What proportions of these two ingredients will perfectly combine to work better in curing hypertension patients? This will rely on our directors' professional opinions because some of our directors are doctors with actual experiences of curing hypertension patients. With actual experience from our directors, sales people, customers, and pharmacists, we can identify the market trends.... Therefore we are the original company. Our competitors can only import similar products from overseas.” [Manager in company #A]*

Second, categorising customers can have an impact on the entire production and marketing scheme. The following statement illustrates this:

*“I will differentiate my products for the end users, doctor and pharmacist. No matter whether we differentiate our products for the end users or any other ways, we all want the same result, which is to influence the customers' behaviour. I will tend to promote sales to the end users and strengthen our aftersales service to achieve this.” [Manager in company #F]*

There are different ways to implement customer-based brand differentiation:

*“The price of TWD \$75 for three days applies to every clinic and every patient (a current medicine policy in Taiwan). How can we promote more sales under this kind of condition? Because consumers want more of these products after they get used to these products. That is how we become successful. That is why Ying-Jie continues to focus on making eye drops.*

*We have another way to win the battle, which is signing contracts. We are very flexible in signing sales contracts. That will make our*

*sales people easily get the sales contract signed by our customers. Our salesman can flexibly change the contract and tailor the contract based on their sales volume....” [Manager in company #F]*

Some other ways of implementing a customer-based differentiation strategy, by using low prices, spread by word of mouth and using opinion leaders to lead consumer thinking, give quick results for brand differentiation. The following statement illustrates this:

*“The best and most direct method to differentiate your brand name is to create the product value by a cheaper price. Then your customers can accept your products easily and quickly given that they recognize the differentiation in your product. They will help to promote your product as a cheap and good product via word of mouth. Consumers nowadays want a good value product and that really works on them....*

*That is so-called endorsement by opinion leader. Where shall we go to sell the drug products to consumers? We can differentiate our product via hiring an opinion leader in the medical industry to endorse our products with their own good experiences and treatment results.... It is a great advantage for products to be able to sell in 7–11 stores. Then your distribution channel will not be limited to pharmacies. If the products can only be sold in a pharmacy, we can only use the end user, such as a doctor, to help us to differentiate the product. I use the power of word of mouth among consumers to promote our products. When it comes to drug products, word of mouth marketing is pretty basic. That is how we differentiate our products.” [Manager in company #I]*

### 5.2.2.3 Interview results on brand positioning

As was argued in the literature review, one of the most important factors in implementing positioning strategy is price. A good example is a business scheme by which the medicine produced in Taiwan is targeted at high-income customers in mainland China:

*“The high-end market is attractive for pharmaceutical companies. The maternity medicine Ann Bao, which stabilizes physical conditions when a woman is pregnant, is now popular in the high-end market in mainland China. Ann Bao is sold at a high price in mainland China, both needle shots and tablets of this medicine are available for customers.”* [Manager in company #A]

Some companies position their product as a premium product because they have a very good corporate image or appear frequently in commercials. This kind of positioning strategy is based on the corporate image. The following statement illustrates this:

*“A company with a good reputation can also promote their products more easily by improving company image and by connecting itself to the distributors. For example, we usually advertise in the medical journals or show up at the medical conferences to enhance our reputation. A debut conference and a product commercial are often used to boost customers’ confidence in a new medical product and to position well this product. Thus it also builds an unseen positioning strategy within customers’ minds.”* [Manager in company #B]

Another way to position their product at the high-end market is to use ingredients from a certain country. For example, products from the USA, Europe or Taiwan can be positioned for the high-end market and sold for a high price. The following statement illustrates this:

*“Pharmaceutical companies in Taiwan are very likely to succeed in product positioning.... We prefer ingredients for medicine production from Europe and India, and we would rather not use ingredients from China. People can find out the differences between ingredients from different regions when testing these ingredients. The medical ingredients from China may survive testing on effects, but these ingredients always fail impurity tests.” [Manager in company #A]*

Some companies implement their positioning strategy by basing it on medical effectiveness. This positioning strategy is based on customer needs:

*“A company needs to take all aspects, such as efficacy of the medicine, of one medication into consideration before doing product positioning. Anti-wrinkle products with good effects on skin could be an example for product positioning. Medication with good efficacy will be recognised as a high-end product, even if producing expense of this medication is not high.” [Manager in company #B]*

However, some companies which are more manufacturer-oriented would rather position their products as good quality by focusing on customer relationships. A statement from one manager illustrates this:

*“I’d rather do business with small firms. A company is more likely to make the profit from the business with small firms, and this sort of business allows the company to make bigger profit from the products they have sold....*

*The quality and efficacy of medical products have been improved a lot in recent years. The retailers and distributors are also strong on promoting medical products. And a pharmaceutical company can rely on good post-sales service. Pharmaceutical companies are doing well in almost everything.” [Manager in company #E]*

*“A good post-sale service is required after the value of one product is recognized by customers. A good post-sale service is to strengthen customer’s faith in the product value and to influence doctors’ prescriptions. This is to enlarge the market share of a single product.” [Manager in company # I]*

Company F positions the company to sell different types of medical products, which suit three different types of customer need. The following statement illustrates this:

*“Pharmaceutical companies always want to produce the most evolutionary drug one step ahead others. However, it could be really difficult to really get there. In real situations, pharmaceutical companies produce medicines, which have been introduced by other companies, after patents of these medicines have expired. TTY BioPharm is poised to introduce its newest medicine. The efficacy of this medicine remains unrevealed.*

*Similar customer groups are targeted by different companies. Product positioning of three affiliations, including Ying Yung, Ying Jie and Ying Ann, could be an example for this. Ying Yung concentrates on ordinary medical products, such as medicine for headache relief, cold and flu. They also have flu syrup, needle shots and ointments. People are suggested to check up with Ying Yung, if they can’t find what they want in the market. Therefore Ying Yung is*

*targeting to very popular stores like Carrefour. Ying Jie, on the other hand, only focuses on one product called “idrop”. This company’s 50 per cent profit comes from the sale of idrop. Its position is on particular one kind of product....”* [Manager in company #F]

### **5.2.3 Interviews about Medicine Price**

In all of the interviews, price turns out to be a major issue in the Taiwanese pharmaceutical industry. Currently Taiwanese pharmaceutical companies are at the stage of producing generic products and not able to invest a lot of money in inventing new products. Therefore price is a critical factor. However, it is agreed by most of the consumers that a medicine with a higher price suggests a better quality of product and a better company image.

*“I suppose that good company reputation can boost product sales and push products into markets more quickly. A good corporate image can affect other substantial elements of marketing strategy, including human resources, retailers, and product price. Inevitably, a product with a higher price sometimes shows its better function or produces a better company image.”* [Manager in company #I]

A medicine with a higher price usually captures the value that is generated in the product.

*“When a new product in a new area comes on the market, as for my experience, if you use the brand value to make a price-oriented segmentation, 90 per cent of the time it will be success.”* [Manager in company #B]

*“I think the symbolic or expressive value is important. For example, some companies give the customers an impression of high class because the company’s products are located in the market as a pioneer product. This means the company has good ability with R&D, therefore, the product is considered to be good quality and requires a higher price.” [Manager in company #B]*

*“Actually it [price] is the value that is perceived in the consumer’s mind. A medicine with a higher price, and if its marketing campaign runs well, gives the customer an impression that it has more effectiveness and maybe other combined functions or added value.” [Manager in company #G]*

Price can also be a useful factor for creating segmentation. The following statement illustrates this:

*“My company’s reputation will be bad if we have a different segmentation with the Chinese firms which have the product with an average or poor quality. This will also impact on the price, which has the so-called price segmentation as well.” [Manager in company #D]*

*“The product price will be a very crucial factor when it comes to market segmentation.... That is the reason I want to point it out here regarding the adoption of price for market segmentation. It is used to create a new market and expand your business. We used to say that you have to use the best medication for liver or kidney diseases. That will create economic value or benefit for us. The benefit from these medications can strengthen our competitiveness compared to other competitors. Otherwise, you won’t be able to make money under the national health insurance system or under the civil service insurance and labour insurance system.... However, even if you lower your price, you can still earn more money if you achieve more*

*sales.... Thus, I will adopt pricing strategy and price my product higher to achieve the purpose of market segmentation.” [Manager in company #A]*

Some companies also customize price by distinguishing between customers who pursue high values and customers with strict budgets.

*“There are two kinds of hospital customers. Because products with higher prices could put pressure on profits, some hospitals could lose money because of this. One kind is pursuing high values added to the medical product. They would like to give a good price and get the service and use high-level products. The other kind of hospital customers makes strict budgets and put pressure to cut medicine prices so they are very low, so that these hospitals can have profit margins.” [Manager in company #G]*

From the interview, what the respondent said supported the idea that having a higher-priced product usually signals a better quality or higher level of products. Therefore, the qualitative result indirectly indicates that the medicine price moderates the relationship of the uses of corporate reputation and a firm’s brand image strategy.

#### **5.2.4 Qualitative analysis conclusion**

From the analysis of the qualitative data, it may be concluded that experts suggested new items for each construct. The interviewees suggested adding eight new items to the strategic resource construct, which are: (1) gains more opportunities for strategic alliances or business cooperation; (2) enhances prices by validating medicines in published clinical reports; (3) makes market entry easier; (4) gains more customers for



the firm; (5) makes the marketing system work more efficiently; (6) makes it easier for the firm to find a downstream reseller; (7) enhances the firm's sales force; (8) develops strategic links with complementary products.

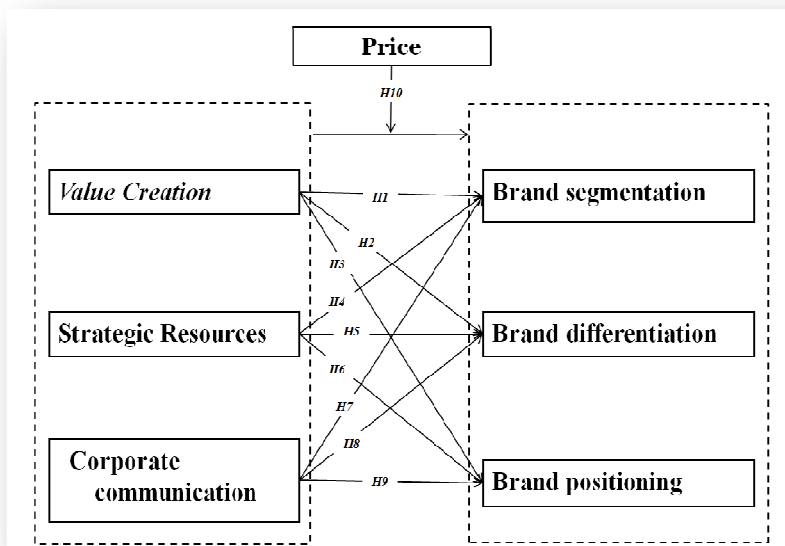
Six items were suggested as additions to the previous corporate communication construct: (1) the experience of the sales people; (2) the sales ability of the sales people; (3) the firm's awareness of social responsibility; (4) using all types of negotiations with customers, competitors or the government; (5) helps internal communication; (6) helps external communication. One additional item was recommended for the brand differentiation construct: advanced R&D leads the needs of the target market. And two items were suggested for the brand segmentation construct: to be based on customer needs, and to be based on different channels of distribution.

Finally, a whole new construct is suggested to act as a link between the relationship of the uses of corporate reputation and brand image strategy: namely, medicine price.

This exploratory qualitative study provided a richness of data forming the basis for developing the quantitative study. The study provided a better understanding of the research question. (RQ [research question] - How do Taiwanese pharmaceutical companies use their corporate reputation to develop brand image strategy?). The qualitative research of the interviews gave the researcher more knowledge about how corporate reputation is used in practice and how the brand strategies operate practically.

The findings of this exploratory qualitative study generally confirmed the research model. None of the original items were to be deleted. However, some items were suggested as additions, as stated above. And the findings also confirmed the research hypotheses with the exception of a moderating construct of “price”. The following framework (see Figure 5.1) is the outcome of the literature search and is supported by the qualitative study. One hypothesis regarding the way price moderates the relationship between the uses of corporate reputation and brand image strategy was added.

Figure 5.1: Revised conceptual framework



Srouce: Developed by the researcher

### 5.3 Main Study: Measurement Scales Validation and Hypothesis Testing

### 5.3.1 Descriptive statistical analysis

With regard to the company histories, there are three in the “less than 10 years” category, accounting for 4.92%, 36 in the “11–30 years”, accounting for 59.02%, 16 in the “31–50 years” category, accounting for 26.23%, five in the “51–80 years” category, accounting for 8.20%, and one in the “more than 81 years” category, accounting for 1.64%. For the details, please see Table 5.1.

Table 5.1: Descriptive analysis table of company statistics

Variable	Category of information	No. of samples	Percentage (%)	Cumulative percentage (%)
Firm history	(1) less than 10 years	3	4.92	4.92
	(2) 10–30 years	36	59.02	63.93
	(3) 30–50 years	16	26.23	90.16
	(4) 50–80 years	5	8.20	98.36
	(5) Over 80 years	1	1.64	100.00
Sales turnover	(1) < 1 million pounds	14	22.95	22.95
	(2) 1 million to 2.99 million sterling pounds (£)	17	27.87	50.82
	(3) 3 million to 9.99 million sterling pounds (£)	15	24.59	75.41
	(4) Over 10 million sterling pounds (£)	15	24.59	100.00
How many people work for your company?	(1) Fewer than 50 people	25	40.98	40.98
	(2) 51–100 people	15	24.59	65.57
	(3) 101–300 people	14	22.95	88.52
	(4) More than 300 people	7	11.48	100.00
Which	(1) Sales department	20	32.79	32.79

department do you belong to?	(2) Marketing department	15	24.59	57.38
	(3) Management department	26	42.62	100.00
Which position do you hold in your company?	(1) Board chairman	3	4.92	4.92
	(2) General manager	10	16.39	21.31
	(3) Department manager	48	78.69	100.00
How many years have you worked in this company?	(1) Less than 1 year	4	6.56	6.56
	(2) 2–3 years	8	13.11	19.67
	(3) 4–10 years	21	34.43	54.10
	(4) 11–20 years	15	24.59	78.69
	(5) More than 20 years	13	21.31	100.00
Firm character (multiple choice)	(1) A foreign-owned company (American company)	1		
	(2) A foreign-owned company (European company)	0		
	(3) A foreign-owned company (Asian company)	2		
	(4) A trader company (American company)	7		
	(5) A trader company (European company)	9		
	(6) A trader company (Asian company)	22		
	(7) Local company	38		

Source: Developed by the researcher

After the pilot study, in the questionnaire, we assigned each item a code name making it easier for us to observe the correlation of each item with the construct. Regarding the codes for each item, please refer to Table 5.2.

Table 5.2: Measurement items of the theoretical constructs and their codes

Construct	Items wording	Items codes
Value creation	The corporate reputation of our firm helps to reduce transaction costs.	VC1
	Our firm competes by creating useful products.	VC2
	Our firm competes by providing good financial performances.	VC3

Value creation	Our firm competes by providing products with appropriate outcomes.	VC4	
	Our firm's value-chain activity is consistent with functional value creation.	VC5	
	Our firm's resource allocation is consistent with functional value creation.	VC6	
	Our firm's products compete by appealing to the senses.	VC7	
	Our firm competes by creating appropriate emotions (e.g. fun, pleasure, excitement, relaxation, etc.)	VC8	
	Our firm competes by facilitating social relationships (e.g. bonds, attachments and togetherness).	VC9	
	Our firm competes by creating epistemic value (e.g. knowledge and novelty).	VC10	
	Our firm's value-chain activity is consistent with experiential value creation (e.g. happiness, affection and excitement...).	VC11	
	Our firm's resource allocation is consistent with experiential value creation.	VC12	
	Our firm competes by enhancing its customers' self-identity.	VC13	
	Our firm competes by enhancing its customers' self-concept (or self-image).	VC14	
	Our firm competes by enhancing its customers' self-worth.	VC15	
	Our firm competes by facilitating self-expression.	VC16	
	Our firm competes by offering economic value (low prices, value in use, life costs).	VC17	
	Our firm competes by enabling ease of use of its products (time, effort, energy).	VC18	
	Our firm competes by minimizing customer risk (personal, technological, strategic).	VC19	
	Our firm's resource allocation is consistent with symbolic value creation.	VC20	
	Strategic resources	In our organization, corporate reputation serves as a competitive advantage.	SR1
		Our firm's corporate reputation sends a strong signal to its customers.	SR2
		Our firm's corporate reputation implies efficient sales and marketing.	SR3
Our firm's corporate reputation implies it has advanced R&D.		SR4	
Our firm's corporate reputation implies that we are able to enter markets early.		SR5	
Our firm's corporate reputation gains the firm more opportunity for strategic alliance or business cooperation.		SR6	
Our firm's corporate reputation is enhancing the prices charged by validating them in published clinical reports.		SR7	
Our firm's corporate reputation enables the firm to enter the market more easily.		SR8	
Our firm's corporate reputation gains more customers for the firm.		SR9	
Our firm's corporate reputation makes the marketing system work more efficiently.		SR10	
Our firm's corporate reputation makes it easier for us to find a downstream reseller.		SR11	
Our firm's corporate reputation can enhance our firm's sales force.		SR12	
Our firm's corporate reputation helps new products to enter the market.		SR13	
Our firm's corporate reputation helps the strategic link with complementary products.		SR14	
Corporate communication	Our firm's corporate reputation shapes the perceptions of shareholders and other stakeholders.	CC1	
	Our firm's corporate reputation builds a relationship between the firm and its customers.	CC2	
	Our firm's corporate reputation influences consumer choices.	CC3	

	Our firm's corporate reputation is based on the experience of the sales staff.	CC4
	Our firm's corporate reputation is based on the sales ability of the sales staff.	CC5
	Our firm's corporate reputation helps internal communication (the communication between our firm and our staff).	CC6
	Our firm's corporate reputation helps external communication (the communication between our firm and our customers).	CC7
Brand positioning	Our firm's corporate brand positioning strategy signifies high quality to its customers.	BP1
	Our firm's corporate brand positioning strategy signifies better product performance for our customers.	BP2
	Our firm's corporate brand positioning strategy involves a long distribution chain.	BP3
	Our firm's corporate brand positioning strategy is to provide a much better service to our customers.	BP4
	Our firm's corporate brand positioning strategy tries to fulfil the basic needs of our customers.	BP5
Brand differentiation	Our corporate brand is perceived differently according to whether consumers have experienced our products.	BD1
	Our corporate brand is perceived differently by word of mouth.	BD2
	Our corporate brand is perceived differently by promotion.	BD3
	Our corporate brand is actually created differently by product characteristics.	BD4
	Our corporate branding may be directed at different market segments.	BD5
	Our corporate brand may utilize physical product characteristics.	BD6
	Our corporate brand may utilize non-physical product characteristics.	BD7
Brand segmentation	Our corporate brand strategy requires product differentiation.	BS1
	Our corporate brand strategy requires changes in point distribution location.	BS2
	Our corporate brand strategy requires changes in importance attached to a non-physical product.	BS3
	Our corporate brand strategy requires changes in importance attached to a physical product.	BS4
	Our corporate brand strategy is decided by the needs of the customers when determining product differentiation.	BS5
Medicine price	A medicine with a higher price shows a higher quality of product to our customers.	PP1
	A medicine with a higher price shows a better image of the company it belongs to.	PP2
	A medicine with a higher price usually captures the value that is generated in the product.	PP3
	Our firm customizes price by value that is perceived by our customers.	PP4
	Our firm customizes price by distinguishing between customers who pursue high values and customers with strict budgets.	PP5
	Our firm customizes price by offering coupons, regional prices, limited consumption or negotiatory prices to a specific group of customers.	PP6
	Our firm customizes price according to the characteristics of the customers.	PP7
	Our firm customizes price according to the trading characteristics.	PP8
	Our firm pays considerable attention to effective publicity and communication while operating bulk buying/discounts.	PP9

Resource: Developed by the researcher

### **5.3.2 Descriptive statistical analysis of measurement items**

#### **5.3.2.1 Value creation scales**

In terms of “value creation,” the mean values of the respective measurement items are between 3.590 and 4.508; the average score of the dimension is 3.943. The dimension with the highest score (4.508) was “Our firm competes by minimizing customer risk”. Other dimensions which were scored higher than the average were “Our firm competes by enabling ease of use of its products”, “Our firm’s value-chain activity is consistent with experiential value creation”, “The corporate reputation of our firm helps to reduce transaction costs”, “Our firm competes by creating useful products”, “Our firm competes by enhancing its customers’ self-worth”, “Our firm’s resource allocation is consistent with experiential value creation”, “Our firm’s resource allocation is consistent with functional value creation”, “Our firm’s value-chain activity is consistent with functional value creation”, “Our firm competes by providing product with appropriate outcomes”, “Our firm competes by providing good financial performances”, and “Our firm competes by minimizing customer risk”.

The dimension with the lowest score (3.590) was “Our firm competes by facilitating self-expression”. Other dimensions which scored lower than the average were “Our firm competes by enhancing its customers’ self-identity”, “Our firm competes by enhancing its customers’ self-concept or self-image”, “Our firm competes by offering economic value”, “Our firm’s resource allocation is consistent with symbolic value creation”, “Our firm competes by creating appropriate emotions”, “Our firm competes by facilitating social relationships”, “Our firm’s products compete by appealing to the

senses”, “Our firm competes by creating epistemic value” and “Our firm competes by facilitating self-expression”. The above data is compiled in Table 5.3.

Table 5.3: Descriptive statistical analysis of the value creation scales

Item	Item code	Mean of dimension	Mean	Std deviation	Ranking
		3.943			
1. The corporate reputation of our firm helps to reduce transaction costs.	VC1		3.951	.921	9
2. Our firm competes by creating useful products.	VC2		3.984	1.162	8
3. Our firm competes by providing good financial performances.	VC3		4.393	.759	2
4. Our firm competes by providing product with appropriate outcomes.	VC4		4.311	.765	3
5. Our firm’s value-chain activity is consistent with functional value creation.	VC5		4.066	.750	4
6. Our firm’s resource allocation is consistent with functional value creation.	VC6		4.049	.784	5
7. Our firm’s products compete by appealing to the senses.	VC7		3.623	1.267	18
8. Our firm competes by creating appropriate emotions (e.g. fun, pleasure, excitement, relaxation, etc.)	VC8		3.738	1.182	16
9. Our firm competes by facilitating social relationships (e.g. bonds, attachments and togetherness).	VC9		3.656	1.209	17
10. Our firm competes by creating epistemic value (e.g. knowledge and novelty).	VC10		3.623	1.098	19
11. Our firm’s value-chain activity is consistent with experiential value creation (e.g. happiness, affection and excitement...).	VC11		3.951	.939	10
12. Our firm’s resource allocation is consistent with experiential value creation.	VC12		4.016	.866	6
13. Our firm competes by enhancing its customers’ self-identity.	VC13		3.885	1.127	12
14. Our firm competes by enhancing its customers’ self-concept (or self-image).	VC14		3.885	1.185	13
15. Our firm competes by enhancing its customers’ self-worth.	VC15		4.000	1.155	7
16. Our firm competes by facilitating self-expression.	VC16		3.590	1.202	20
17. Our firm competes by offering economic value (low prices, value in use, life costs).	VC17		3.885	1.142	14
18. Our firm competes by enabling ease of use of its products (time, effort, energy).	VC18		3.951	.990	11
19. Our firm competes by minimizing customer risk (personal, technological, strategic).	VC19		4.508	.722	1
20. Our firm’s resource allocation is consistent with symbolic value creation.	VC20		3.787	1.002	15



### **5.3.2.2 Strategic resource scales**

In terms of “strategic resources”, the mean values for the respective measurement items are between 3.525 and 4.426, and the mean dimension is 4.103. The dimension with the highest score (4.426) was “Our firm’s corporate reputation gains the firm more opportunity for strategic alliance or business cooperation”. Other dimensions which were scored higher than the average were “Our firm’s corporate reputation implies that we are able to enter markets early”, “Our firm’s corporate reputation helps the strategic link with complementary products”, “Our firm’s corporate reputation implies efficient sales and marketing”, “Our firm’s corporate reputation enables the firm to enter the market more easily”, “Our firm’s corporate reputation helps a new product to enter the market”, “Our firm’s corporate reputation gains more customers for the firm”, “Our firm’s corporate reputation makes the marketing system work more efficiently”, “In our organization, corporate reputation serves as a competitive advantage”, “Our firm’s corporate reputation sends a strong signal to its customers”, “Our firm’s corporate reputation makes it easier for us to find a downstream reseller”, and “Our firm’s corporate reputation gains the firm more opportunity for strategic alliance or business cooperation” are higher than the mean dimension. The dimension with the lowest score (3.525) was “Our firm’s corporate reputation implies it has advanced R&D”. Other dimensions which were scored lower than the average were “Our firm’s corporate reputation can enhance our firm’s sales force”, “Our firm’s corporate reputation is enhancing our prices by validating them in published clinical reports” and “Our firm’s corporate reputation implies it has advanced R&D”. The above data is compiled in Table 5.4.

Table 5.4: Descriptive statistical analysis of strategic values and resource scales

Item	Item code	Mean of dimension	Mean	Std deviation	Ranking
		4.103			
1. In our organization, corporate reputation serves as a competitive advantage.	SR1		4.262	.893	4
2. Our firm's corporate reputation sends a strong signal to its customers.	SR2		4.279	.915	3
3. Our firm's corporate reputation implies efficient sales and marketing.	SR3		4.148	.813	9
4. Our firm's corporate reputation implies it has advanced R&D.	SR4		3.525	1.246	14
5. Our firm's corporate reputation implies that we are able to enter markets early.	SR5		4.115	.950	11
6. Our firm's corporate reputation gains the firm more opportunity for strategic alliance or business cooperation.	SR6		4.426	.805	1
7. Our firm's corporate reputation is enhancing our prices by validating them in published clinical reports.	SR7		3.590	1.174	13
8. Our firm's corporate reputation enables the firm to enter the market more easily.	SR8		4.164	.969	8
9. Our firm's corporate reputation gains more customers for the firm.	SR9		4.213	.897	6
10. Our firm's corporate reputation makes the marketing system work more efficiently.	SR10		4.213	.859	5
11. Our firm's corporate reputation makes it easier for us to find a downstream resaler.	SR11		4.328	.908	2
12. Our firm's corporate reputation can enhance our firm's sales force.	SR12		3.852	1.062	12
13. Our firm's corporate reputation helps a new product to enter the market.	SR13		4.180	.958	7
14. Our firm's corporate reputation helps the strategic link with complementary products.	SR14		4.148	1.078	10

### 5.3.2.3 Corporate communication scales

In terms of “corporate communication,” the mean values of the respective measurement items are between 3.213 and 4.344. The mean of dimension is 3.977. The dimension with the highest score (4.344) was “Our firm’s corporate reputation builds a relationship between the firm and its customers”. Other dimensions which were scored higher than the average were “Our firm’s corporate reputation influences consumer choices”, “Our firm’s corporate reputation shapes the

perceptions of shareholders and other stakeholders” , “Our firm’ s corporate reputation helps external communication” , and “Our firm’ s corporate reputation builds a relationship between the firm and its customers” . The dimension with the lowest score (3.213) was “Our firm’ s corporate reputation is based on the experience of the sales staff” . Other dimensions which scored lower than the average were “Our firm’ s corporate reputation is based on the sales ability of the sales staff” , “Our firm’ s corporate reputation helps internal communication” and “Our firm’ s corporate reputation is based on the experience of the sales staff.” The above data is compiled in Table 5.5.

Table 5.5: Descriptive statistical analysis of corporate communication scales

Item	Item code	Mean of dimension	Mean	Std. deviation	Ranking
		3.977			
1. Our firm’s corporate reputation shapes the perceptions of shareholders and other stakeholders.	CC1		4.180	.806	3
2. Our firm’s corporate reputation builds a relationship between the firm and its customers.	CC2		4.344	.750	1
3. Our firm’s corporate reputation influences consumer choices.	CC3		4.148	1.014	4
4. Our firm’s corporate reputation is based on the experience of the sales staff.	CC4		3.213	1.185	7
5. Our firm’s corporate reputation is based on the sales ability of the sales staff.	CC5		3.869	.885	5
6. Our firm’s corporate reputation helps internal communication (the communication between our firm and our staff).	CC6		3.820	1.133	6
7. Our firm’s corporate reputation helps external communication (the communication between our firm and our customers).	CC7		4.262	.728	2

#### 5.3.2.4 Brand positioning scales

In terms of “brand positioning,” the mean values of the respective measurement items are between 3.852 and 4.443. The mean of dimension is 3.977. The dimension with the highest score (4.443) was “Our firm’s corporate brand positioning strategy

signifies better product performance for its customers”. Other dimensions which scored higher than the average were “Our firm’s corporate brand positioning strategy is to provide a much better service to its customers”, “Our firm’s corporate brand positioning strategy signifies high quality to its customers”, and ‘Our firm’s corporate brand positioning strategy signifies better product performance for its customers”. The dimension with the lowest score (3.852) was “Our firm’s corporate brand positioning strategy involves a long distribution chain”. Another dimension which scored lower than the average was “Our firm’s corporate brand positioning strategy tries to fulfil the basic needs of our customers” and “Our firm’s corporate brand positioning strategy involves a long distribution chain.” The above data is compiled in Table 5.6.

Table 5.6: Descriptive statistical analysis of brand positioning scales

Item	Item code	Mean of dimension	Mean	Std. deviation	Ranking
		4.220			
1. Our firm’s corporate brand positioning strategy signifies high quality to its customers.	BP1		4.410	.783	2
2. Our firm’s corporate brand positioning strategy signifies better product performance for its customers.	BP2		4.443	.696	1
3. Our firm’s corporate brand positioning strategy involves a long distribution chain.	BP3		3.852	1.167	5
4. Our firm’s corporate brand positioning strategy is to provide a much better service to its customers.	BP4		4.246	.907	3
5. Our firm’s corporate brand positioning strategy tries to fulfil the basic needs of our customers.	BP5		4.148	.963	4

### 5.3.2.5 Brand differentiation scales

In terms of “product differentiation,” the mean values of the respective measurement items are between “3.361 and 4.098. The mean of dimension is 3.827. The dimension with the highest score (4.098) was “Our corporate brand is perceived

differently according to whether consumers have experienced our products” . Other dimensions which scored higher than the average were “Our corporate brand is perceived differently by word of mouth” , “Our corporate branding may be directed at different market segments” , ‘Our firm’ s corporate brand positioning strategy is based on advanced R&D which meets the needs of the targeted market” and “Our corporate brand is perceived differently according to whether consumers have experienced our products.” The dimension with the lowest score (3.361) was “Our corporate brand is perceived differently by promotion” . Other dimensions which scored lower than the average were “Our corporate brand may utilize non-physical product characteristics” , “Our corporate brand is actually created differently by product characteristics” , and “Our corporate brand is perceived differently by promotion.” The above data is compiled in Table 5.7.

Table 5.7: Descriptive statistical analysis of brand differentiation scales

Item	Item code	Mean of dimension	Mean	Std. deviation	Ranking
3.827					
1. Our corporate brand is perceived differently according to whether consumers have experienced our products.	BD1		4.098	.851	1
2. Our corporate brand is perceived differently by word of mouth.	BD2		3.869	1.056	4
3. Our corporate brand is perceived differently by promotion.	BD3		3.361	1.330	7
4. Our corporate brand is actually created differently by product characteristics.	BD4		3.639	1.126	6
5. Our corporate branding may be directed at different market segments.	BD5		4.066	.946	3
6. Our corporate brand may utilize non-physical product characteristics.	BD6		3.689	1.177	5
7. Our firm’s corporate brand positioning strategy is based on advanced R&D which meets the needs of the targeted market.	BD7		4.066	.998	2

### 5.3.2.6 Brand segmentation scales

In terms of “brand segmentation,” the mean values of the respective measurement items are between 3.426 and 3.902. The mean of dimension is 3.643. The dimension with the highest score (3.902) was “Our corporate brand strategy requires product differentiation” . Another dimension which scored higher than the average was “Our corporate brand strategy requires changes in importance attached to a physical product” and “Our corporate brand strategy requires product differentiation.” The dimension with the lowest score (3.426) was “Our corporate brand strategy requires changes in importance attached to a non-physical product” . Other dimensions which scored lower than the average were “Our corporate brand strategy is decided by the needs of the customers when determining product differentiation” and “Our corporate brand strategy requires changes in point distribution location” and “Our corporate brand strategy requires changes in importance attached to a nonphysical product.” The above data is compiled in Table 5.8.

Table 5.8: Descriptive statistical analysis of brand segmentation scales

Item	Item code	Mean of dimension	Mean	Std. deviation	Ranking
3.643					
1. Our corporate brand strategy requires product differentiation.	BS1		3.902	.995	1
2. Our corporate brand strategy requires changes in point distribution location.	BS2		3.508	1.233	4
3. Our corporate brand strategy requires changes in importance attached to a non-physical product.	BS3		3.426	1.117	5
4. Our corporate brand strategy requires changes in importance attached to a physical product.	BS4		3.869	1.008	2
5. Our corporate brand strategy is decided by the needs of the customers when determining product differentiation.	BS5		3.508	1.337	3

### 5.3.2.7 Medicine price scales

In terms of “medicine price,” the mean values of the respective measurement items are between 3.230 and 3.803. The mean of dimension is 3.446. The dimension with the highest score (3.803) was “Our firm pays considerable attention to effective publicity and communication while operating bulk buying/discounts” . Other dimensions which scored higher than the average were “Our firms customize price according to the trading characteristics” , “A medicine with a higher price shows a better image of the company it belongs to” , “A medicine with a higher price usually captures the value that is generated in the product” , and “Our firm pays considerable attention to effective publicity and communication while operating bulk buying/discounts.” The dimension with the lowest score (3.230) was “Our firm customizes price by value that is perceived by our customers” . Other dimensions which were scored lower than the average were “A medicine with a higher price shows a higher quality of product to its customers” , “Our firm customizes price according to the characteristics of the customers” , “Our firm customizes price by offering coupons, regional prices, limited consumption or negotiatory prices to a specific group of customers” , “Our firm customizes price by distinguishing between customers who pursue high values and customers with strict budgets” and “Our firm customizes price by value that is perceived by our customers.” The above data is compiled in Table 5.9.

Table 5.9: Descriptive statistical analysis of medicine price scales

Item	Item code	Mean of dimension	Mean	Std. deviation	Ranking
3.446					
1. A medicine with a higher price shows a higher quality of product to its customers.	PP1		3.410	1.243	5
2. A medicine with a higher price shows a better image of the company it belongs to.	PP2		3.508	1.299	3
3. A medicine with a higher price usually	PP3		3.721	1.127	2

captures the value that is generated in the product.				
4. Our firm customizes price by value that is perceived by our customers.	PP4	3.230	1.383	9
5. Our firm customizes price by distinguishing between customers who pursue high values and customers with strict budgets.	PP5	3.262	1.303	8
6. Our firm customizes price by offering coupons, regional prices, limited consumption or negotiatory prices to a specific group of customers.	PP6	3.295	1.321	7
7. Our firm customizes price according to the characteristics of the customers.	PP7	3.295	1.229	6
8. Our firms customize price according to the trading characteristics.	PP8	3.492	1.120	4
9. Our firm pays considerable attention to effective publicity and communication while operating bulk buying/discounts.	PP9	3.803	1.166	1

#### **5.4 Confirmatory factor analysis (CFA) (questionnaire reliability and validity analysis/measurement model analysis)**

The validity and reliability of the questionnaire in this research were tested through confirmatory factor analysis (CFA) and Cronbach's coefficient as described below.

This section is divided into two parts: the validity analysis and the reliability analysis.

##### **5.4.1 Validity analysis**

In this study, the confirmatory factor analysis has been adopted to test the suitability of the respective dimension measurement models in order to determine whether the dimensions have enough convergent validity and discriminant validity. The convergent validity and discriminant validity are analysed as follows.



#### 5.4.1.1 Convergent validity analysis

In this study, evaluations were based on the convergent validity analysis criteria suggested by Anderson and Gerbing (1988), the confirmatory factor analysis (CFA) criteria proposed by Bagozzi and Yi (1988) and the goodness of fit (GoF) proposed by Gefen, Straub and Boudreau (2000). The three evaluation criteria are: (1) the factor loadings of all indicators have reached significance; (2) the Composite Reliability (CR) of the dimensions is higher than 0.7; (3) the average variance extracted (AVE) is higher than 0.5. Data analysis of the items in the dimensions was then conducted using PLS1.04.

#### *Value creation scales*

In the measurement model of “value creation scales” , the Cronbach Alpha is 0.938, and the factor loadings of the respective measurement indicators have reached significance; the Composite Reliability (CR) and the Average Variance Extracted (AVE) are 0.945 and 0.469 respectively, indicating the CR and AVE are both higher than 0.7 and 0.4. Therefore, the data analysis shows that the convergent validity of “value creation” is within the acceptance range. This data is compiled in Table 5.10.

Table 5.10: Confirmatory factor analysis of value creation

Variable	Estimated MLE parameter		Compo-site Relia-bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_{\nu}$ )	Measure-ment error ( $\delta$ )		
			0.945	0.469
1. The corporate reputation of our firm helps to reduce transaction costs.	0.590	0.652		
2. Our firm competes by creating useful products.	0.462	0.786		
3. Our firm competes by providing good financial performances.	0.644	0.585		
4. Our firm competes by providing products with appropriate outcomes.	0.607	0.631		
5. Our firm's value-chain activity is consistent with	0.548	0.700		

Table 5.10: Confirmatory factor analysis of value creation

Variable	Estimated MLE parameter		Compo-site Reliability (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure-ment error ( $\delta$ )		
functional value creation.				
6. Our firm's resource allocation is consistent with functional value creation.	0.623	0.612		
7. Our firm's products compete by appealing to the senses.	0.783	0.387		
8. Our firm competes by creating appropriate emotions (e.g. fun, pleasure, excitement, relaxation, etc.)	0.675	0.545		
9. Our firm competes by facilitating social relationships (e.g. bonds, attachments and togetherness).	0.693	0.520		
10. Our firm competes by creating epistemic value (e.g. knowledge and novelty).	0.652	0.575		
11. Our firm's value-chain activity is consistent with experiential value creation (e.g. happiness, affection and excitement...).	0.743	0.449		
12. Our firm's resource allocation is consistent with experiential value creation.	0.714	0.491		
13. Our firm competes by enhancing its customers' self-identity.	0.858	0.263		
14. Our firm competes by enhancing its customers' self-concept (or self-image).	0.865	0.252		
15. Our firm competes by enhancing its customers' self-worth.	0.893	0.202		
16. Our firm competes by facilitating self-expression.	0.791	0.375		
17. Our firm competes by offering economic value (low prices, value in use, life costs).	0.656	0.569		
18. Our firm competes by enabling ease of use of its products (time, effort, energy).	0.593	0.648		
19. Our firm competes by minimizing customer risk (personal, technological, strategic).	0.436	0.810		
20. Our firm's resource allocation is consistent with symbolic value creation.	0.651	0.576		

Cronbach Alpha =0.938; the factor loading is a standardized value, indicating  $p < 0.001$

### *Strategic value and resources scales*

In the measurement model of “value creation and resources scales,” the Cronbach Alpha is 0.955, and the factor loadings of the respective measurement indicators have reached significance; the Composite Reliability (CR) and Average Variance Extracted (AVE) are 0.964 and 0.662 respectively, indicating the CR and AVE are both higher than 0.7 and 0.5. Therefore, the data analysis shows that the convergent validity of “strategic value and resources scales” is within the acceptance range. This data is compiled in Table 5.11.

Table 5.11: Confirmatory factor analysis of strategic value and resources scales

Variable	Estimated MLE parameter		Compo- -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_v$ )	Measure- ment error ( $\delta$ )		
			0.964	0.662
1. In our organization, corporate reputation serves as a competitive advantage.	0.793	0.371		
2. Our firm's corporate reputation sends a strong signal to its customers.	0.895	0.200		
3. Our firm's corporate reputation implies efficient sales and marketing.	0.788	0.380		
4. Our firm's corporate reputation implies it has advanced R&D.	0.668	0.554		
5. Our firm's corporate reputation implies that we are able to enter markets early.	0.892	0.204		
6. Our firm's corporate reputation gains the firm more opportunity for strategic alliance or business cooperation.	0.813	0.339		
7. Our firm's corporate reputation is enhancing prices by validating them in published clinical reports.	0.692	0.521		
8. Our firm's corporate reputation enables the firm to enter the market more easily.	0.935	0.127		
9. Our firm's corporate reputation gains more customers for the firm.	0.830	0.312		
10. Our firm's corporate reputation makes the marketing system work more efficiently.	0.904	0.183		
11. Our firm's corporate reputation makes it easier for us to find a downstream resaler.	0.838	0.299		
12. Our firm's corporate reputation can enhance our firm's sales force.	0.588	0.655		
13. Our firm's corporate reputation helps a new product to enter the market.	0.916	0.161		
14. Our firm's corporate reputation helps the strategic link with complementary products.	0.756	0.428		

Cronbach Alpha =0.955; the factor loading is a standardized value, indicating  $p < 0.001$

### ***Corporate communication scales***

In the measurement model of “corporate communication scales,” the Cronbach Alpha is 0.840, and the factor loadings of the respective measurement indicators have reached significance; the Composite Reliability (CR) and Average Variance Extracted (AVE) are 0.892 and 0.547 respectively, indicating the CR and AVE are both higher than 0.7 and 0.5. Therefore, the data analysis shows that the convergent validity of “corporate communication” is within the acceptance range. This data is compiled

in Table 5.12.

Table 5.12: Confirmatory factor analysis of corporate communication scales

Variable	Estimated MLE parameter		Compo -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure- ment error ( $\delta$ )		
			0.892	0.547
1. Our firm's corporate reputation shapes the perceptions of shareholders and other stakeholders.	0.816	0.335		
2. Our firm's corporate reputation builds a relationship between the firm and its customers.	0.827	0.316		
3. Our firm's corporate reputation influences consumer choices.	0.637	0.594		
4. Our firm's corporate reputation is based on the experience of the sales staff.	0.545	0.703		
5. Our firm's corporate reputation is based on the sales ability of the sales staff.	0.741	0.451		
6. Our firm's corporate reputation helps internal communication (the communication between our firm and our staff).	0.767	0.412		
7. Our firm's corporate reputation helps external communication (the communication between our firm and our customers).	0.798	0.364		
Cronbach Alpha =0.840; the factor loading is a standardized value, indicating p<0.001				

### ***Brand positioning scales***

In the measurement model of “brand positioning scales,” the Cronbach Alpha is 0.851, and the factor loadings of the respective measurement indicators have reached significance; the Composite Reliability (CR) and Average Variance Extracted (AVE) are 0.902 and 0.650 respectively, indicating the CR and AVE are both higher than 0.7 and 0.5. Therefore, the data analysis shows that the convergent validity of “brand positioning” is within the acceptance range. This data is compiled in Table 5.13.

Table 5.13: Confirmatory factor analysis of brand positioning scales

Variable	Estimated MLE parameter		Compo -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure- ment error ( $\delta$ )		

Table 5.13: Confirmatory factor analysis of brand positioning scales

Variable	Estimated MLE parameter		Compo -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure- ment error ( $\delta$ )		
			0.902	0.650
1. Our firm's corporate brand positioning strategy signifies high quality to its customers.	0.751	0.437		
2. Our firm's corporate brand positioning strategy signifies better product performance for its customers.	0.866	0.250		
3. Our firm's corporate brand positioning strategy involves a long distribution chain.	0.816	0.335		
4. Our firm's corporate brand positioning strategy is to provide a much better service to its customers.	0.878	0.230		
5. Our firm's corporate brand positioning strategy tries to fulfil the basic needs of our customers.	0.707	0.500		
Cronbach Alpha =0.851; the factor loading is a standardized value, indicating $p < 0.001$				

**Brand differentiation scales**

In the measurement model of “brand differentiation scales,” the Cronbach Alpha is 0.874, and the factor loadings of the respective measurement indicators have reached significance; the Composite Reliability (CR) and Average Variance Extracted (AVE) are 0.909 and 0.590 respectively, indicating the CR and AVE are both higher than 0.7 and 0.5. Therefore, the data analysis shows that the convergent validity of “product differentiation” is within the acceptance range. This data is compiled in Table 5.14.

Table 5.14: Confirmatory factor analysis of brand differentiation scales

Variable	Estimated MLE parameter		Compo -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure- ment error ( $\delta$ )		
			0.909	0.590
1. Our corporate brand is perceived differently according to whether consumers have experienced our products.	0.813	0.340		
2. Our corporate brand is perceived differently by word of mouth.	0.752	0.434		
3. Our corporate brand is perceived differently by promotion.	0.679	0.539		
4. Our corporate brand is actually created	0.852	0.275		

Table 5.14: Confirmatory factor analysis of brand differentiation scales

Variable	Estimated MLE parameter		Compo -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure- ment error ( $\delta$ )		
differently by product characteristics.				
5. Our corporate branding may be directed at different market segments.	0.779	0.393		
6. Our corporate brand may utilize non-physical product characteristics.	0.664	0.559		
7. Our firm's corporate brand positioning strategy is based on advanced R&D which meets the needs of the targeted market.	0.818	0.331		
Cronbach Alpha =0.874; the factor loading is a standardized value, indicating p<0.001				

**Brand segmentation scales**

In the measurement model of “brand segmentation scales,” the Cronbach Alpha is 0.896, and the factor loadings of the respective measurement indicators have reached significance; the Composite Reliability (CR) and Average Variance Extracted (AVE) are 0.927 and 0.717 respectively, indicating the CR and AVE are both higher than 0.7 and 0.5. Therefore, the data analysis shows that the convergent validity of “product segmentation” is within the acceptance range. This data is compiled in Table 5.15.

Table 5.15: Confirmatory factor analysis of product segmentation scales

Variable	Estimated MLE parameter		Compo -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure- ment error ( $\delta$ )		
			0.927	0.717
1. Our corporate brand strategy requires product differentiation.	0.836	0.300		
2. Our corporate brand strategy requires changes in point distribution location.	0.909	0.174		
3. Our corporate brand strategy requires changes in importance attached to a non-physical product.	0.879	0.227		
4. Our corporate brand strategy requires changes in importance attached to a physical product.	0.816	0.334		
5. Our corporate brand strategy is decided by the needs of the customers when determining product differentiation.	0.788	0.378		
Cronbach Alpha =0.896; the factor loading is a standardized value, indicating p<0.001				

### ***Medicine price scales***

In the measurement model of “medicine price scales,” the Cronbach Alpha is 0.906, and the factor loadings of the respective measurement indicators have reached significance; the Composite Reliability (CR) and Average Variance Extracted (AVE) are 0.924 and 0.577 respectively, indicating the CR and AVE are both higher than 0.7 and 0.5. Therefore, the data analysis shows that the convergent validity of “medicine price scales” is within the acceptance range. This data is compiled in Table 5.16.

Table 5.16: Confirmatory factor analysis of medicine price scales

Variable	Estimated MLE parameter		Compo- -site Relia- bility (CR)	Average Variance Extracted (AVE)
	Factor loading ( $\lambda_x$ )	Measure- ment error ( $\delta$ )		
			0.924	0.577
1. A medicine with a higher price shows a higher quality of product to its customers.	0.724	0.476		
2. A medicine with a higher price shows a better image of the company it belongs to.	0.660	0.565		
3. A medicine with a higher price usually captures the value that is generated in the product.	0.654	0.573		
4. Our firm customizes price by value that is perceived by our customers.	0.728	0.471		
5. Our firm customizes price by distinguishing between customers who pursue high values and customers with strict budgets.	0.851	0.275		
6. Our firm customizes price by offering coupons, regional prices, limited consumption or negotiatory prices to a specific group of customers.	0.794	0.370		
7. Our firm customizes price according to the characteristics of the customers.	0.878	0.228		
8. Our firms customize price according to the trading characteristics.	0.824	0.320		
9. Our firm pays considerable attention to effective publicity and communication while operating bulk buying/discounts.	0.685	0.531		

Cronbach Alpha =0.906; the factor loading is a standardized value, indicating  $p < 0.001$

#### **5.4.1.2 Discriminant validity analysis**

The study was conducted in line with the two criteria of discriminant validity proposed by Gask and Nevin (1985): (1) the correlational coefficient between the two dimensions is less than 1; (2) the correlational coefficients of the two dimensions are smaller than the individual Cronbach's reliability coefficients, indicating the two dimensions possess discriminant validity. In addition, following Fornell and Larcker (1981), a third criterion for determining the discriminant validity has been proposed: (3) the correlational coefficients of the two dimensions are smaller than the square root of AVE, indicating that the two dimensions possess discriminant validity. In this study, SPSS 15.0 and PLS 1.04 were used to analyse the correlational coefficient matrixes of the measurement variables. The analysis data results as shown in Table 5.16 are consistent with the three discriminant validity criteria mentioned above, indicating good discriminant validity.

#### **5.4.2 Reliability analysis**

The study was conducted in accordance with the internal consistency of the Cronbach's coefficient questionnaire (as shown in Table 5.16) proposed by Bagozzi and Yi (1988). In terms of the respective scales, the items were examined to determine whether or not the item-total correlations of the respective items are higher than 0.5. The Cronbach's coefficient of the "value creation" dimension is greater than 0.5, indicating that the "value creation" scales possess good reliability and internal consistency. The Cronbach's coefficient of the "strategic resources" is 0.955, and the item-total correlations are all greater than 0.5, indicating that the "strategic resources" scales possess good reliability and internal consistency. The Cronbach's coefficient of the "corporate communication" dimension is 0.840, and the item-total correlations are



all greater than 0.5, indicating that the “corporate communication” scales possess good reliability and internal consistency. The Cronbach’s coefficient of the “brand segmentation” dimension is 0.896, and the item-total correlations are all greater than 0.5, indicating that the “brand segmentation” scales possess good reliability and internal consistency. The Cronbach’s coefficient of the “brand differentiation” dimension is 0.874, and the item-total correlations are all greater than 0.5, indicating that the “brand segmentation” scales possess good reliability and internal consistency. The Cronbach’s coefficient of the “brand positioning” dimension is 0.851, and the item-total correlations are all greater than 0.5, indicating the “brand segmentation” scales possess good reliability and internal consistency. The Cronbach’s coefficient of the “medicine price” dimension is 0.906, and the item-total correlations are all greater than 0.5, indicating that the “medicine price” scales possess good reliability and internal consistency. This data is compiled in Table 5.17.

Table 5.17: Table of discriminant validity analysis and correlational coefficients of variables

Dimension	Value creation	Strategic resources	Corporate communication	Brand segmentation	Brand differentiation	Brand positioning	Medicine price	CR	AVE
								Composite Reliability (CR)	Average Variance Extracted (AVE)
Value creation	.777							0.945	0.469
Strategic resources	.829	.871						0.964	0.662
Corporate communication	.751	.745	.818					0.892	0.547
Brand segmentation	.730	.755	.805	.895				0.927	0.717
Brand differentiation	.796	.790	.825	.947	.839			0.909	0.590
Brand positioning	.826	.847	.762	.830	.867	.866		0.902	0.650
Product price	.546	.586	.484	.636	.579	.527	.836	0.924	0.577
Mean									
Variance									

Cornbach's $\alpha$	0.938	0.955	0.840	0.896	0.874	0.851	0.906		
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The diagonal value is the square root of AVE; CR represents Composite Reliability; AVE represents Average Variance Extracted; the lower triangle is Pearson correlation.

## **5.5 Structural Equation Modelling Analysis**

To further validate the relationship between each dimension based on the conceptual framework mentioned in this study, structural equation modelling analysis was conducted to understand the relationship of the modelling as a whole. The overall structural equation modelling combines the factor analysis and path analysis of traditional statistics. In addition, the simultaneous equation in econometrics was included to simultaneously process the relationship of a series of dependent variables, which is suitable for the discussion of the causal relationship of the overall modelling in this study. Therefore, in order to further examine the relationship between each dimension mentioned in the theoretical framework in this section, all the samples underwent structural equation modelling analysis to verify the conceptual framework mentioned in this study and to understand the relationship between each dimension.

With regard to the analysis procedures of the structural equation modelling, in this study the two-stage structural equation modelling analysis proposed by Anderson and Gerbing (1988) and Williams and Hazer (1986) was conducted: (1) the first stage targets the respective research dimensions and items to conduct confirmatory factor analysis and Cronbach's coefficient analysis. Moreover, through analysis of convergent validity, discriminant validity and reliability, a stable measurement model was developed; (2) the second stage focuses on the reduction of multiple measurement items into a few measurement indicators in which the structural model was used to verify the hypotheses in this study. The advantage of the two-stage analysis is that the measurement model and structural model were differentiated. If the reason for the test results not reaching significance cannot be ascertained, the analysis can still help researchers to clarify questions related to the measurement model or the dimensions. The stage 1 analysis can be found in 5.3 of this chapter, so it will not be explained further in this section. In this section, the stage 2 to 4 analyses are included.

### **5.5.1 Development of the Overall Modelling**

Section 5.3 of this chapter shows that the measurement models of the respective dimensions are stable. In addition, the convergent validity, discriminant validity and reliability have all reached acceptable standards. Since the variables in the research framework are within a single dimension, the single dimension was adopted during the

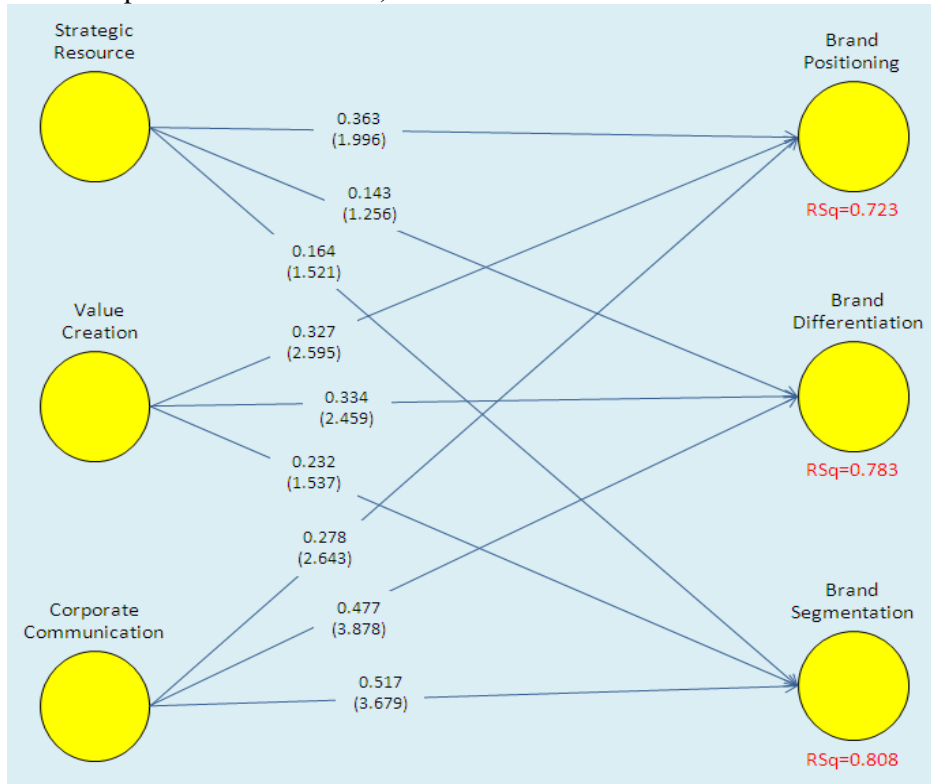
verification. Therefore, in terms of the measurement models of “value creation”, “strategic resource”, “corporate communication”, “brand differentiation”, “brand segmentation”, “brand positioning” and “medicine price”, the scores of the measurement items in the respective dimensions served as the measurement indicators to measure the theoretical model. In this study, there are 61 samples for analysis using the PLS package software. At the same time, the correlational coefficient matrixes of the respective measurement variables are as shown in Table 5.18. The measurement variables that are correlated have reached significance, indicating the structural equation modelling analysis is suitable.

### **5.5.2 Hypothesis Validation and Result Analysis**

As the PLS gives emphasis to the capabilities of the formative indicators and reflective indicators, while the concomitant variable estimation methods for the different indicator samples vary, the measurement values of the Goodness of Fit (GoF) have not been provided. The explanatory power of the model is represented by R square, which indicates an ability of the cause indicators to explain the potential variables. The size of the load value determines the strength of the respective indicators in affecting the dimensions, and the path coefficients are standardized estimation values in which their significance can be determined by the p-value obtained from the Bootstrapping analysis. The structural modelling analysis results in this study are as follows: in the structural model, the forecast variables are “value creation”, “strategic resources” and “corporate communication”, which were used to predict the dependent variables including “brand segmentation”, “brand differentiation” and “brand positioning”. In terms of the regression model, with “brand segmentation” as a dependent variable, the standardized value for “value creation” is 0.232 ( $t$ -value=1.537), the standardized value of “strategic resources” is 0.164 ( $t$ -value=1.521), the standardized value of “corporate communication” is 0.517 ( $t$ -value=3.679) and the model’s explanatory power R is 0.723. In terms of the regression model, with “brand differentiation” as a dependent variable, the standardized value of “value creation” is 0.334 ( $t$ -value=2.459), the standardized value of “strategic resources” is 0.143 ( $t$ -value=1.256), the standardized value of “corporate communication” is 0.477 ( $t$ -value=3.878) and the model’s explanatory power R is 0.783. In terms of the regression model, with “brand positioning” as a dependent variable, the standardized value of “value creation” is 0.327 ( $t$ -value=2.595), the standardized value of “strategic resources” is 0.363 ( $t$ -value=1.996), the standardized

value of “corporate communication” is 0.278 ( $t$ -value=2.643) and the model’s explanatory power R is 0.808. A model with path values and  $t$ -values is shown in Figure 5.2.

Figure 5.2: Path values (structural path relationships) and  $t$ -value (significance of structural path based on  $t$ -value) in brackets



In this study, with “medicine price” as the regulatory variable, the effect of the uses of corporate reputation on brand image strategy was explored. The analysis results have found that the standardized estimate value of the uses of corporate reputation is 0.736 ( $t$ -value=11.444), the standardized estimate value of medicine price is 0.211 ( $t$ -value=3.223), the standardized estimate value of the regulatory effect variables between the uses of corporate reputation and brand image strategy is -0.177 ( $t$ -value=-3.068), while the explanatory power R of the model is 0.845. The result findings show that medicine price has a negative moderating effect on the uses of corporate reputation in “brand image strategy” (Please refer to Figure 5.2). In other words, the more recognized medicine price is, the less helpful its role will be in having an effect on the the uses of corporate reputation in brand image strategy. The negative effect of medicine price on brand image strategy will interfere with the positive effect of the uses of corporate

reputation in brand image strategy. A model of the moderating effect between the relationship of the uses of corporate reputation and brand image strategy is shown in Figure 5.3.

Figure. 5.3: Moderating effect between the relationship of the uses of corporate reputation and brand image strategy

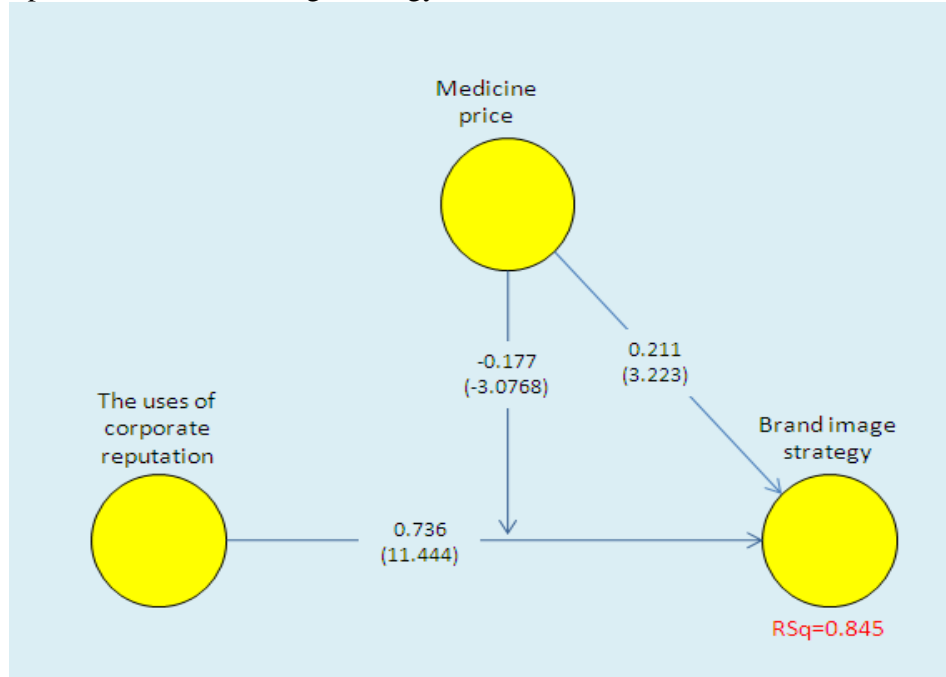


Table 5.18: Table of standardized path coefficients and hypothesis validation of the research model

Hypothesis	Path	Correlation between dimensions	Path coefficient	t-value	Test results
H1	$\beta_1$	Value creation $\rightarrow$ Brand segmentation (VC $\rightarrow$ BS)	0.232	1.537	Rejected
H2	$\beta_4$	Value creation $\rightarrow$ Brand differentiation (VC $\rightarrow$ BD)	0.334*	2.459	Accepted
H3	$\beta_7$	Value creation $\rightarrow$ Brand positioning (VC $\rightarrow$ BP)	0.327*	2.595	Accepted
H4	$\beta_2$	Strategic resources $\rightarrow$ Brand segmentation (SR $\rightarrow$ BS)	0.164	1.521	Rejected
H5	$\beta_5$	Strategic resources $\rightarrow$ Brand differentiation (SR $\rightarrow$ BD)	0.143	1.256	Rejected
H6	$\beta_8$	Strategic resources $\rightarrow$ Brand positioning (SR $\rightarrow$ BP)	0.363*	1.996	Accepted
H7	$\beta_3$	Corporate communication $\rightarrow$ Brand segmentation (CC $\rightarrow$ BS)	0.517*	3.679	Accepted
H8	$\beta_6$	Corporate communication $\rightarrow$ Brand differentiation (CC $\rightarrow$ BD)	0.477*	3.878	Accepted
H9	$\beta_9$	Corporate communication $\rightarrow$ Brand positioning (CC $\rightarrow$ BP)	0.278*	2.643	Accepted
H10	$\beta_{10}$	Moderating effects of medicine price $\rightarrow$ Brand image	-0.177*	-3.0768	Accepted

According to the results, we assume that there were some issues as follows. First, the comparatively small sample size with some of the constructs having too many items (i.e. there are 20 items in the value creation construct). To reduce the number of items, some items, based on factor loading below 0.7, are deleted. Only those items which have with higher loadings are retained. Second, there is a lack of discriminant validity in the analysis. For the above reason, the model was run again with the constructs of the deleted items.

### **5.5.3 Second Round Analysis**

#### **5.5.3.1 Direct effects**

Based on Henseler et al. (2009), some items with a factor loading (absolute standardized outer loading) below 0.7 ( $\approx \sqrt{0.5}$ ) were deleted. Thus, VC1, VC2, VC3, VC4, VC5, VC6, VC7, VC8, VC9, VC10, VC11, VC12, VC17, VC18, VC19, VC20 were deleted from the value creation construct and VC13, VC14, VC15, VC16 were retained. SR1, SR3, SR4, SR6, SR7, SR9, SR12, SR14 were deleted from the strategic resource construct and SR2, SR5, SR8, SR10, SR11, SR13 retained. CC3, CC4, CC5 and CC6 were deleted from the corporate communication construct and CC1, CC2, CC7 were retained. BP1, BP5 were deleted from the brand positioning construct and BP2, BP3, BP4 three items are retained. BD3, BD6 were deleted from the brand differentiation construct and BD1, BD2, BD4, BD5, BD7 retained. Finally, BS4 and BS5 were deleted from the brand segmentation construct and BS1, BS2, BS3 were retained. PP4, PP5, PP6, PP8, and PP9 were deleted from the medicine price construct and PP1, PP2, PP3 and PP7 were retained.

According to Henseler et al. (2009), “cross-loadings offer another check for discriminant validity. If an indicator has a higher correlation with another latent variable than with its respective latent variable, the appropriateness of the model should be reconsidered.” Therefore, the cross loading was checked, as is shown in Table 5.19. For example, the BD→BD cross loadings should be higher than the loadings of BD with other constructs. The same rule can be applied to other constructs.

According to Henseler et al. (2009), “the essential criterion for this (structural model) assessment is the coefficient of determination (R square) of the endogenous latent



variables. Chin (1998) describes R square values of 0.67, 0.33, and 0.19 in PLS path models as substantial, moderate, and weak, respectively.” Therefore, in this second round of analysis, it is shown that the R square values of BD, BP and BS are 0.6536, 0.7508 and 0.6633 respectively. The average value of R square is 0.689233, which, according to Chin’s (1998) description, is “substantial”.

Table 5.19: Cross loadings table

	<b>BD</b>	<b>BP</b>	<b>BS</b>	<b>CC</b>	<b>SR</b>	<b>VC</b>
BD1	<b>0.8398</b>	0.7371	0.6806	0.6962	0.6436	0.5485
BD2	<b>0.7754</b>	0.5751	<i>0.6353</i>	<i>0.6175</i>	0.5148	0.4777
BD4	<b>0.8453</b>	0.6452	0.8024	0.6121	0.6124	0.5654
BD5	<b>0.7874</b>	<i>0.7022</i>	<i>0.7176</i>	0.4854	<i>0.6316</i>	0.5174
BD7	<b>0.8746</b>	0.6061	0.6755	0.6936	0.6124	0.4573
BP2	0.7799	<b>0.8253</b>	0.6694	0.7127	0.6508	0.5374
BP3	0.6379	<b>0.8761</b>	0.7545	0.5403	0.6909	0.752
BP4	0.6777	<b>0.9298</b>	0.6583	0.6512	0.8129	0.6622
BS1	0.8082	0.7014	<b>0.8661</b>	0.6285	0.6471	0.5475
BS2	0.7574	0.748	<b>0.9439</b>	0.6284	0.6268	0.7192
BS3	0.7657	0.7085	<b>0.9218</b>	0.6196	0.5706	0.7144
CC1	0.652	0.6034	0.5939	<b>0.8946</b>	0.6747	0.4117
CC2	0.6762	0.6313	0.6288	<b>0.9187</b>	0.7164	0.439
CC7	0.6752	0.6678	0.5892	<b>0.8328</b>	0.6974	0.5109
SR10	0.61	0.7354	0.5461	0.7115	<b>0.9324</b>	0.6187
SR11	0.5676	<i>0.7095</i>	0.5671	0.6542	<b>0.8606</b>	0.6149
SR13	0.6642	0.7592	0.6704	0.6775	<b>0.9286</b>	0.6755
SR2	0.689	0.8096	0.6051	0.6921	<b>0.9097</b>	0.7096
SR5	<i>0.7555</i>	<i>0.7197</i>	0.6604	<i>0.7954</i>	<b>0.8887</b>	0.5912
SR8	0.6906	0.7489	0.6115	0.7789	<b>0.944</b>	0.5679
VC13	0.5457	0.7068	0.6519	0.4473	0.6406	<b>0.9355</b>
VC14	0.5586	0.6729	0.6675	0.4996	0.6347	<b>0.9418</b>
VC15	0.6192	0.7958	0.7173	0.5187	0.7024	<b>0.9566</b>
VC16	<i>0.5797</i>	0.565	<i>0.6669</i>	0.441	0.5802	<b>0.8725</b>

The construct level discriminant validity is computed using the Fornell-Larcker criterion (1981), where the square root of the latent variables shared variance (i.e. AVE) of each variable is higher than the other variables’ correlation (See the row and coloum in the Table). Even though the inter-construct correlation was very high between the latent constructs (e.g., BS→BD = 0.81 or 81%), the criterion of discriminant validity is still satisfied (i.e. BD= 0.83 or 83%).

Table 5.20: Inter-construct correlation

	<b>BD</b>	<b>BP</b>	<b>BS</b>	<b>CC</b>	<b>SR</b>	<b>VC</b>
BD	<b>0.83*</b>					
BP	0.79	<b>0.88</b>				
BS	0.81	0.79	<b>0.91</b>			
CC	0.76	0.72	0.69	<b>0.88</b>		
SR	0.73	0.82	0.67	0.79	<b>0.91</b>	
VC	0.62	0.74	0.73	0.52	0.69	<b>0.93</b>

\* is square root of AVE replaced by diagonal value 1.

According to Henseler et al. (2009), to access the structural model, the average variance extracted (AVE) and R square should be checked as well. Also, the “R square values of 0.67, 0.33, or 0.19 for endogenous latent variables in the inner path model are described as substantial, moderate, or weak” (Chin, 1998, p. 323) The AVE value and R square are shown in Table 5.21.

Moreover, according to Henseler et al. (2009), “the PLS goodness-of-fit proposal by Tenenhaus et al. (2005) is the geometric mean of the average communalities (outer measurement model) and the average R square of endogenous latent variables, and is normed between 0 and 1, where a higher value represents better path model estimations.” In this research, the result of the second round of data analysis shows that the GoF value is 73%, which is more than 50% of value.

Table 5.21: Over view of model

	<b>AVE</b>	<b>Composite Reliability</b>	<b>R-Square</b>	<b>Cronbachs Alpha</b>	<b>Communality</b>	<b>Redundancy</b>	<b>AVE-square</b>
BD	0.6812	0.9142	0.6536	0.8824	0.6812	0.3438	0.83
BP	0.771	0.9097	0.7508	0.8503	0.771	0.2057	0.88
BS	0.8303	0.9361	0.6633	0.8974	0.8303	0.3463	0.91
CC	0.7793	0.9136		0.8573	0.7793		0.88
SR	0.8301	0.967		0.9589	0.8301		0.91
VC	0.8596	0.9607		0.9452	0.8596		0.93

**GoF= 0.738793**

According to Henseler et al. (2009), in order to assess the structural model, the path coefficient should be checked. Therefore, the path coefficients of each construct are

shown in Table 5.22. The p-value is calculated by using a two-tailed student t-test; as is shown in the table, H2, H5 and H9 are not acceptable.

Table 5.22: Path coefficient table

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T-Statistics ( O/STERR )	p-value	Test results
H1 VC -> BS	0.5351	0.521	0.1197	0.1197	4.4686	0.000***	Accepted
H2 VC -> BD	0.2526	0.2428	0.1147	0.1147	2.2015	0.029**	Accepted
H3 VC -> BP	0.3495	0.3588	0.0993	0.0993	3.5205	0.001***	Accepted
H4 SR -> BS	-0.0576	-0.0632	0.1865	0.1865	0.3086	0.758	Rejected
H5 SR -> BD	0.1607	0.1885	0.2144	0.2144	0.7495	0.454	Rejected
H6 SR -> BP	0.4069	0.423	0.1436	0.1436	2.8342	0.005**	Accepted
H7 CC -> BS	0.4547	0.4783	0.2198	0.2198	2.0687	0.040*	Accepted
H8 CC -> BD	0.5004	0.4918	0.1604	0.1604	3.1191	0.002**	Accepted
H9 CC -> BP	0.2181	0.2047	0.1127	0.1127	1.9352	0.054	Rejected

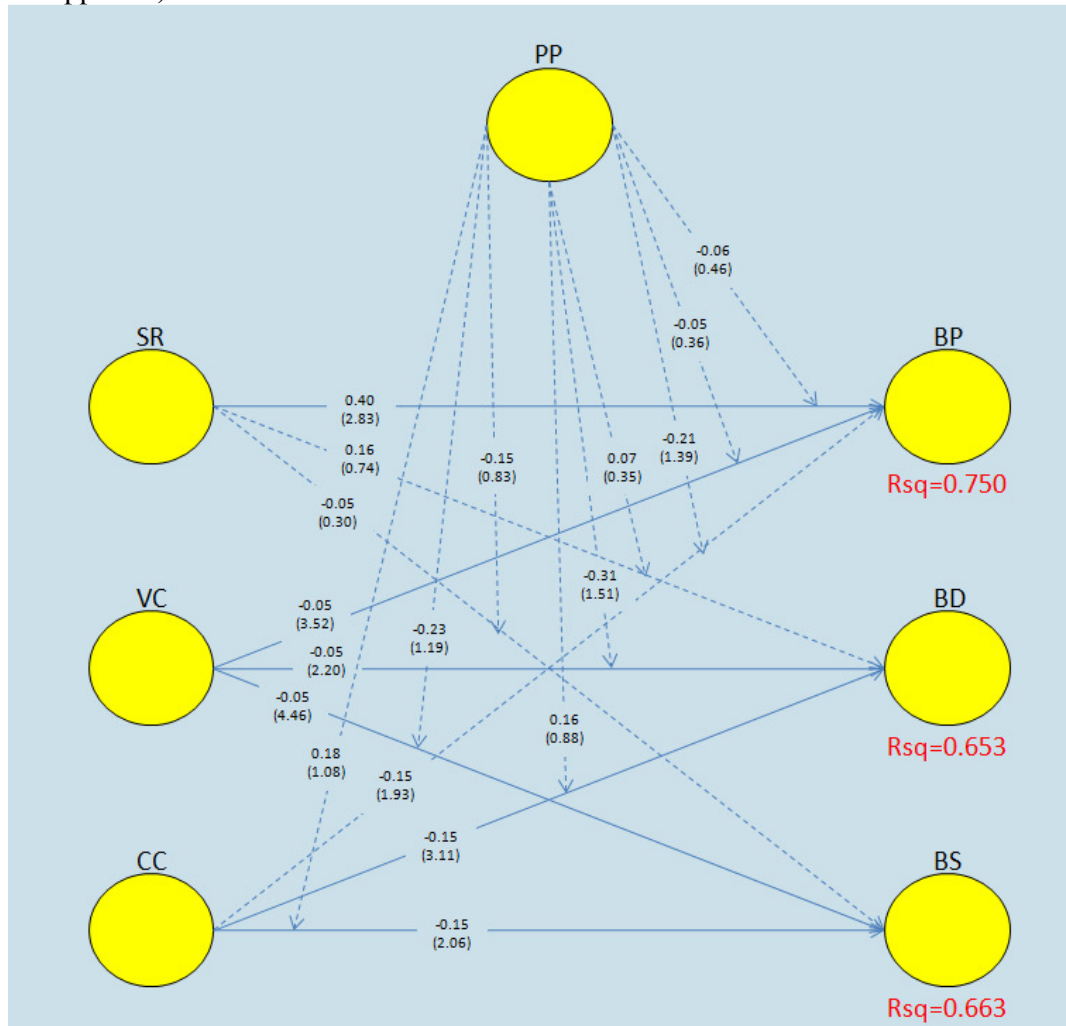
### 5.5.3.2 Moderating effects

The second model analysis tested the moderating role on each hypothesis. In Table 5.23 (path coefficient of moderating effects), the moderating effects of medicine price (PP) on each construct of the uses of corporate reputation (VC, SR and CC) on each construct of brand image strategy (BP, BD and BS) are shown, and none of the moderating effects are supported. However, the medicine price is supported as a predictor of BS, which shared 26% of variance (beta value or standard estimation) and its t-value was 2.7803. A model with path values and t-values is shown in Figure 5.4.

Table 5.23: Path coefficient value of moderating effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )	Test results
CC * PP -> BP	-0.216	-0.099	0.1554	0.1554	1.3903	Rejected
CC * PP -> BD	0.1658	-0.0225	0.1876	0.1876	0.8838	Rejected
CC * PP -> BS	0.1817	0.1042	0.1677	0.1677	1.0835	Rejected
SR * PP -> BP	-0.0692	-0.1219	0.1473	0.1473	0.4699	Rejected
SR * PP -> BD	0.0787	0.199	0.2213	0.2213	0.3556	Rejected
SR * PP -> BS	-0.1506	-0.0874	0.1804	0.1804	0.835	Rejected
VC * PP -> BP	-0.051	-0.0369	0.1416	0.1416	0.3603	Rejected
VC * PP -> BD	-0.3136	-0.0767	0.2066	0.2066	1.5176	Rejected
VC * PP -> BS	-0.2312	-0.1696	0.1937	0.1937	1.1933	Rejected

Figure 5.4: Path values (structural path relationships) and t-value (significance of straturactical path based on t-value) in brackets (→ path supported; - -> path unsupported)



\* *t*-values greater than 1.96 were significant.

Source: Developed for the current study

### 5.5.4 Third-Round Analysis

In this section, several items from the first- and second-round analyses were deleted to refine the model by reducing cross-loadings, which consequently increased the discriminant validity of the model (Fornell and Larcker, 1981; Henseler et al., 2009). For example, BD2 (loading=0.77) was deleted because of the cross-loading with BS and CC (0.63 and 0.61, respectively) (see Table 5.19); BD5 was deleted because of the cross-loading with BP, BS and SR; SR5 was deleted because of the cross-loading with BD, BP and CC; SR11 was deleted because of the cross-loading with BP; and VC16 was deleted because of the cross-loading with BS.

Table 5.20 and Table 5.26 show the effect of the deletion of the cross-loadings. As Table 5.20 shows, the square root of the average variance extracted (AVE) was close to the inter-construct correlation (e.g., 0.81 between BD and BS), which has a lower discriminant validity between the constructs; Table 5.26 reveals that the difference was higher than the square root of AVE and inter-construct correlations and thus satisfies the criterion of discriminant validity (Fornell and Larcker, 1981).

In order to increase the discriminant validity, three highest loading items for each construct were kept to run the third round analysis. Other items were deleted. Therefore, BD1, BD4 and BD7 were retained for the brand differentiation construct; BP2, BP3 and BP4 were retained for the brand positioning construct; BS1, BS2 and BS3 were retained for the brand segmentation construct; CC1, CC2 and CC7 were retained for the corporate communication construct; PP1, PP2 and PP3 were retained for the medicine price construct and SR8, SR10 and SR13 were retained for the strategic resource construct. And finally, VC13, VC14 and VC15 were retained for the value creation construct. And in order to simplify the model, paths that are not supported in the last round of analysis were deleted. A new path of the relationship of PP and BS was added from the last round of analysis. A model with path values and t-values is shown in Figure 5.5.

Table 5.24: Outer loadings

	<b>BD</b>	<b>BP</b>	<b>BS</b>	<b>CC</b>	<b>PP</b>	<b>SR</b>	<b>VC</b>
BD1	0.8371						
BD4	0.8687						
BD7	0.9058						
BP2		0.8227					
BP3		0.8779					
BP4		0.9303					
BS1			0.8705				
BS2			0.9434				
BS3			0.9185				
CC1				0.8956			
CC2				0.921			
CC7				0.8295			
PP1					0.9288		
PP2					0.9494		
PP3					0.9408		
SR10						0.9487	
SR13						0.9397	

SR8	0.9578
VC13	0.9489
VC14	0.9454
VC15	0.9736

Table 5.25: Cross loadings

	BD	BP	BS	CC	PP	SR	VC
BD1	0.8371	0.7353	0.6808	0.6955	0.5525	0.5905	0.5362
BD4	0.8687	0.6453	0.8032	0.6123	0.3552	0.571	0.5277
BD7	0.9058	0.6047	0.677	0.6943	0.4447	0.5776	0.4477
BP2	0.7913	0.8227	0.671	0.7133	0.5203	0.588	0.5465
BP3	0.6105	0.8779	0.7536	0.539	0.4227	0.6644	0.769
BP4	0.6252	0.9303	0.6589	0.65	0.4878	0.812	0.6815
BS1	0.7841	0.7008	0.8705	0.6289	0.5594	0.634	0.5221
BS2	0.7352	0.7483	0.9434	0.6281	0.5621	0.5962	0.7109
BS3	0.7431	0.7089	0.9185	0.6192	0.4812	0.5373	0.6961
CC1	0.658	0.6028	0.5947	0.8956	0.4383	0.6555	0.4141
CC2	0.7252	0.6295	0.6297	0.921	0.2704	0.6737	0.4344
CC7	0.6493	0.6674	0.5889	0.8295	0.432	0.6849	0.5037
PP1	0.3823	0.4556	0.4957	0.3632	0.9288	0.3666	0.5086
PP2	0.5492	0.5731	0.5835	0.4161	0.9494	0.5538	0.6572
PP3	0.5255	0.4874	0.5637	0.4244	0.9408	0.5455	0.4758
SR10	0.5805	0.7357	0.5474	0.7107	0.5327	0.9487	0.6169
SR13	0.6494	0.7598	0.6717	0.6771	0.4761	0.9397	0.6866
SR8	0.6662	0.749	0.613	0.7784	0.4888	0.9578	0.568
VC13	0.5403	0.7074	0.6512	0.4468	0.5746	0.6047	0.9489
VC14	0.5357	0.6739	0.6644	0.4989	0.5048	0.6061	0.9454
VC15	0.5826	0.7965	0.7165	0.5175	0.5952	0.6724	0.9736

Table 5.26: Fornell-Larcker criterion: square inter-construct correlation

	BD	BP	BS	CC	PP	SR	VC
BD	<b>0.7586</b>						
BP	0.580796	<b>0.771</b>					
BS	0.681285	0.62331	<b>0.8304</b>				
CC	0.5909	0.515237	0.469773	<b>0.7795</b>			
PP	0.27238	0.29214	0.342459	0.183698	<b>0.8831</b>		
SR	0.444356	0.622205	0.41538	0.578969	0.276571	<b>0.9001</b>	
VC	0.335357	0.580035	0.503532	0.261019	0.342342	0.432832	<b>0.914</b>

Table 5.27: Overview model

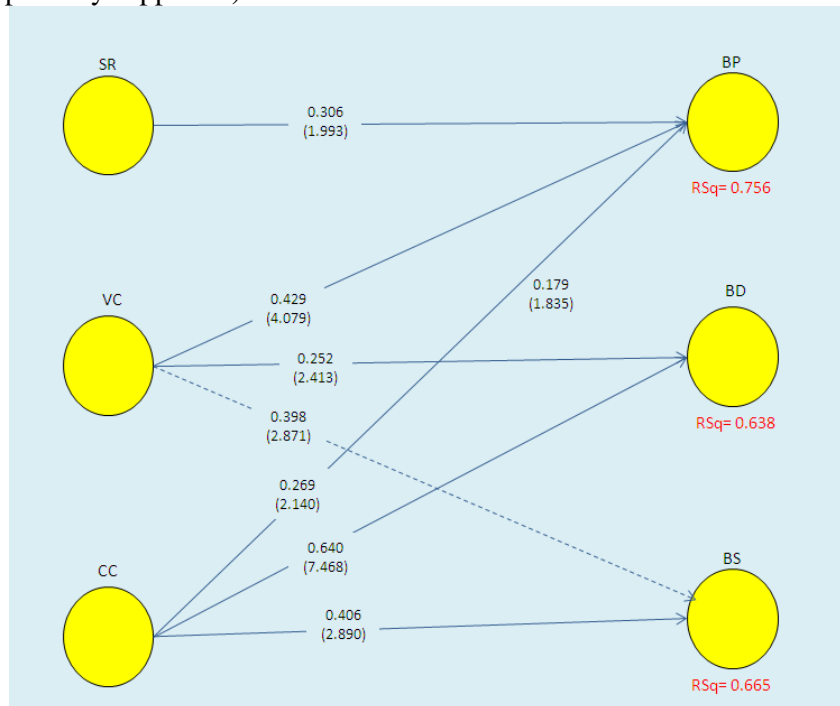
	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
BD	0.7586	0.904	0.6379	0.8404	0.7586	0.4329
BP	0.771	0.9097	0.7565	0.8503	0.771	0.2428

BS	0.8304	0.9362	0.6648	0.8974	0.8304	0.3254
CC	0.7795	0.9137		0.8573	0.7795	
PP	0.8831	0.9577		0.9339	0.8831	
SR	0.9001	0.9643		0.9445	0.9001	
VC	0.914	0.9696		0.9529	0.914	

Table 5.28: Path coefficient

Hypot thesis	Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)	Test result
H8	CC -> BD	0.6398	0.6545	0.0871	0.0871	7.3456	Accepted
H9	CC -> BP	0.2691	0.2729	0.1168	0.1168	2.3032	Partially supported
H7	CC -> BS	0.4056	0.4328	0.151	0.151	2.6864	Accepted
H6	SR -> BP	0.3056	0.3128	0.154	0.154	1.9851	Accepted
H2	VC -> BD	0.2522	0.2478	0.1035	0.1035	2.4369	Accepted
H3	VC -> BP	0.4231	0.4108	0.1	0.1	4.2321	Accepted
H1	VC -> BS	0.3979	0.3832	0.1553	0.1553	2.5614	Mainly supported

Figure 5.5: Path values (structural path relationships) and t-value (significance of structural path based on t-value) in brackets (→ path fully supported; - -> path partially supported)



\* t-values greater than 1.96 were significant.

Source: Developed for the current study

As a condition of that we took the supported path from the second round. The result of the third round analysis is that, apart from the fact that the paths of the relationship of PP and BS and the relationship of VC and BS are not supported, other paths are

supported. Therefore, we conclude that paths of PP and BS and VC and BS are partially supported.

### 5.5.5 Fourth Round Analysis

According to Barclay et al. (1995), a rule of thumb for robust PLS path modelling estimations, the sample size in the inner path model should be larger than “ten times the largest number of structural paths directed at a particular construct” (Henseler et al., 2009). Therefore, because of the small number of respondents, based on the previous model of analysis, we tried to simplify the model by separating one model into three simpler models for the fourth round of analysis. A model with path values and t-values is shown in Figure 5.6, Figure 5.7 and Figure 5.8.

Table 5.29: Outer loadings

	<b>BP</b>	<b>SR</b>	<b>VC</b>
BP2	0.8101		
BP3	0.885		
BP4	0.9336		
SR10		0.9487	
SR13		0.9398	
SR8		0.9577	
VC13			0.9494
VC14			0.9441
VC15			0.9742

Table 5.30: Cross loadings

	<b>BP</b>	<b>SR</b>	<b>VC</b>
BP2	0.8101	0.588	0.5476
BP3	0.885	0.6644	0.7695
BP4	0.9336	0.812	0.6821
SR10	0.7381	0.9487	0.6175
SR13	0.7623	0.9398	0.6869
SR8	0.7501	0.9577	0.5681
VC13	0.7091	0.6047	0.9494
VC14	0.6779	0.6062	0.9441
VC15	0.7992	0.6725	0.9742



Table 5.31: Fornell-Larcker criterion:  
square inter-construct correlation

	BP	SR	VC
BP	<b>0.7704</b>		
SR	0.625523	<b>0.9001</b>	
VC	0.585837	0.433491	<b>0.9139</b>

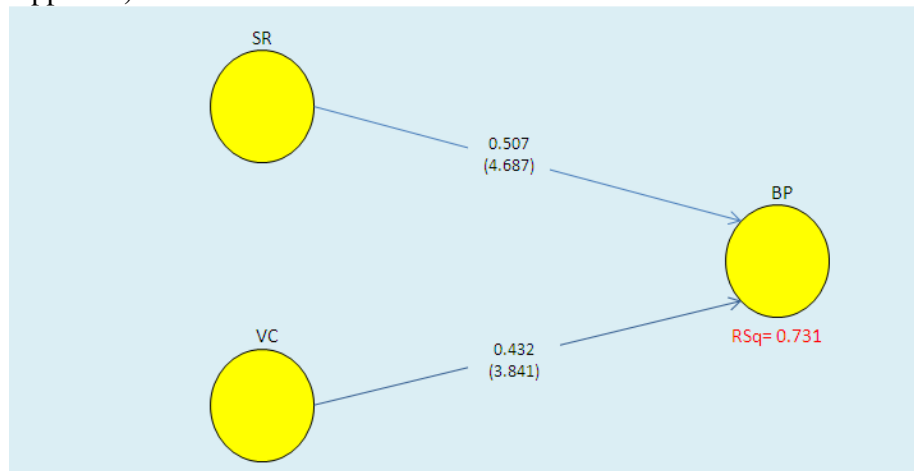
Table 5.32: Overview model

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
BP	0.7704	0.9094	0.7312	0.8503	0.7704	0.4177
SR	0.9001	0.9643		0.9445	0.9001	
VC	0.9139	0.9696		0.9529	0.9139	

Table 5.33: Path coefficient

Hypot he sis	Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )	Test result
H6	SR -> BP	0.5065	0.5148	0.0935	0.0935	5.419	Accepted
H3	VC -> BP	0.4319	0.4243	0.0967	0.0967	4.4664	Accepted

Figure 5.6: Path values (structural path relationships) and t-value (significance of straturactical path based on t-value) in brackets (→ path fully supported; - -> path half-supported)



\* *t*-values greater than 1.96 were significant.

Source: Developed for the current study

Table 5.34: Outer loadings

	<b>BD</b>	<b>CC</b>	<b>VC</b>
BD1	0.8368		
BD4	0.8689		
BD7	0.906		
CC1		0.8978	
CC2		0.9247	
CC7		0.8232	
VC13			0.949
VC14			0.9459
VC15			0.973

Table 5.35: Corss loadings

	<b>BD</b>	<b>CC</b>	<b>VC</b>
BD1	<b>0.8368</b>	0.6941	0.5358
BD4	<b>0.8689</b>	0.6125	0.5275
BD7	<b>0.906</b>	0.6955	0.4478
CC1	0.658	<b>0.8978</b>	0.4141
CC2	0.7252	<b>0.9247</b>	0.4344
CC7	0.6492	<b>0.8232</b>	0.5032
VC13	0.5402	0.4456	<b>0.949</b>
VC14	0.5357	0.4977	<b>0.9459</b>
VC15	0.5825	0.5153	<b>0.973</b>

Table 5.36: Fornell-Larcker criterion:  
square inter-construct correlation

	<b>BD</b>	<b>CC</b>	<b>VC</b>
BD	<b>0.7586</b>		
CC	0.590746	<b>0.7797</b>	
VC	0.335009	0.259183	<b>0.914</b>

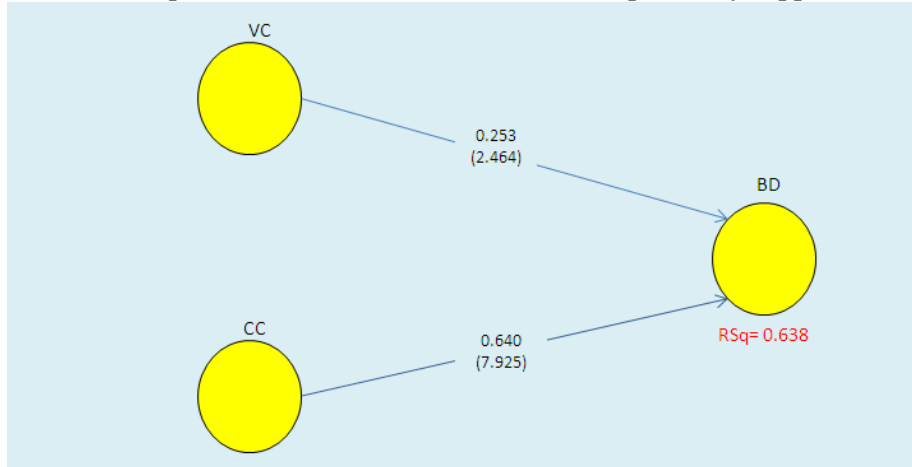
Table 5.37: Overview model

	<b>AVE</b>	<b>Composite Reliability</b>	<b>R Square</b>	<b>Cronbachs Alpha</b>	<b>Communality</b>	<b>Redundancy</b>
BD	0.7586	0.904	0.6382	0.8404	0.7586	0.4329
CC	0.7797	0.9137		0.8573	0.7797	
VC	0.914	0.9696		0.9529	0.914	

Table 5.38: Path coefficient

<b>Hypot hesis</b>	<b>Path</b>	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>Standard Error (STERR)</b>	<b>T Statistics (IO/STERR)</b>	<b>Test result</b>
H8	CC -> BD	0.6398	0.6524	0.0889	0.0889	7.1961	Accepted
H2	VC -> BD	0.2531	0.2453	0.106	0.106	2.3879	Accepted

Figure 5.7: Path values (structural path relationships) and t-value (significance of structural path based on t-value) in brackets (→ path fully supported)



\* *t*-values greater than 1.96 were significant.

Source: Developed for the current study

Table 5.39: Outer loadings

	BS	CC	PP	VC
BS1	0.8704			
BS2	0.9434			
BS3	0.9185			
CC1		0.898		
CC2		0.9222		
CC7		0.8258		
PP1			0.9288	
PP2			0.9494	
PP3			0.9408	
VC13				0.9481
VC14				0.9467
VC15				0.9731

Table 5.40: Cross loadings

	BS	CC	PP	VC
BS1	<b>0.8704</b>	0.6291	0.5594	0.5211
BS2	<b>0.9434</b>	0.6277	0.5621	0.7108
BS3	<b>0.9185</b>	0.6186	0.4812	0.6968
CC1	0.5947	<b>0.898</b>	0.4383	0.4147
CC2	0.6296	<b>0.9222</b>	0.2704	0.4345
CC7	0.5889	<b>0.8258</b>	0.432	0.5034
PP1	0.4957	0.363	<b>0.9288</b>	0.5086
PP2	0.5834	0.4153	<b>0.9494</b>	0.6563
PP3	0.5637	0.424	<b>0.9408</b>	0.4752
VC13	0.6512	0.4458	0.5746	<b>0.9481</b>
VC14	0.6644	0.4984	0.5048	<b>0.9467</b>
VC15	0.7165	0.5163	0.5952	<b>0.9731</b>

Table 5.41: Fornell-Larcker criterion: square inter-construct correlation

	BS	CC	PP	VC
BS	<b>0.8304</b>			
CC	0.469362	<b>0.7796</b>		
PP	0.342459	0.18327	<b>0.8831</b>	
VC	0.503248	0.260202	0.34164	<b>0.914</b>

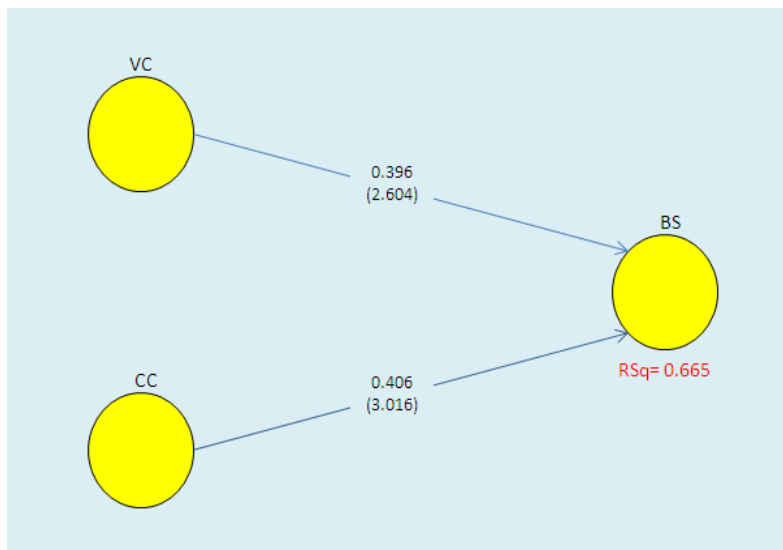
Table 5.42: Overview model

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
BS	0.8304	0.9362	0.6649	0.8974	0.8304	0.3252
CC	0.7796	0.9137		0.8573	0.7796	
PP	0.8831	0.9577		0.9339	0.8831	
VC	0.914	0.9696		0.9529	0.914	

Table 5.43: Path coefficient

Hypot hesis	Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (IO/STERR)	Test result
H7	CC -> BS	0.4055	0.4354	0.1465	0.1465	2.7682	Accepted
H1	VC -> BS	0.398	0.3799	0.1466	0.1466	2.7146	Accepted

Figure 5.8: Path values (structural path relationships) and t-value (significance of straturactical path based on t-value) in brackets (→ path fully supported; - -> path partially supported)



\* *t*-values greater than 1.96 were significant.

Source: Developed for the current study

The tests in rounds 2, 3 and 4 are accepted, and therefore H1 is supported. For H2, the tests in rounds 1, 2, 3 and 4 are accepted, and therefore H2 is supported. For H3, the tests in rounds 1, 2, 3 and 4 are accepted, and therefore H3 is supported. H4 is rejected, because the tests in rounds 1, 2 and 3 are all rejected. H5 is rejected, because the tests in rounds 1 and 2 are rejected. For H6, the tests in rounds 1, 2, 3 and 4 are accepted, and therefore H6 is supported. For H7, the tests in rounds 1, 2, 3 and 4 are accepted, and therefore H7 is supported. For H8, the tests in rounds 1, 2, 3 and 4 are accepted, and therefore H8 is supported. H9 is partially supported; the tests in rounds 1 and 3 are accepted, but in round 2, the test is rejected. H10 is partially supported; the test in round 1 is accepted, but in round 2 the moderating effects are all rejected separately. A summary of the hypotheses appears in Table 5.44 and Table 5.45, and a diagram of the final results is depicted in Figure 5.9.

Table 5.44: Table of standardized path coefficients and hypothesis validation of the research model (numbers based on fourth round analysis)

Hypothesis	Path	Correlation between dimensions	Path coefficient	t-value	Test results
H1	$\beta_1$	Value creation $\rightarrow$ Brand segmentation (VC $\rightarrow$ BS)	0.398	2.715	Accepted
H2	$\beta_4$	Value creation $\rightarrow$ Brand differentiation (VC $\rightarrow$ BD)	0.253	2.388	Accepted
H3	$\beta_7$	Value creation $\rightarrow$ Brand positioning (VC $\rightarrow$ BP)	0.432	4.466	Accepted
H4	$\beta_2$	Strategic resources $\rightarrow$ Brand segmentation (SR $\rightarrow$ BS)	-	-	Rejected
H5	$\beta_5$	Strategic resources $\rightarrow$ Brand differentiation (SR $\rightarrow$ BD)	-	-	Rejected
H6	$\beta_8$	Strategic resources $\rightarrow$ Brand positioning (SR $\rightarrow$ BP)	0.507	5.419	Accepted
H7	$\beta_3$	Corporate communication $\rightarrow$ Brand segmentation (CC $\rightarrow$ BS)	0.406	2.768	Accepted
H8	$\beta_6$	Corporate communication $\rightarrow$ Brand differentiation (CC $\rightarrow$ BD)	0.640	7.196	Accepted
H9	$\beta_9$	Corporate communication $\rightarrow$ Brand positioning (CC $\rightarrow$ BP)	-	-	Partially supported
H10	$\beta_{10}$	Moderating effects of medicine price $\rightarrow$ Brand image	-	-	Partially supported

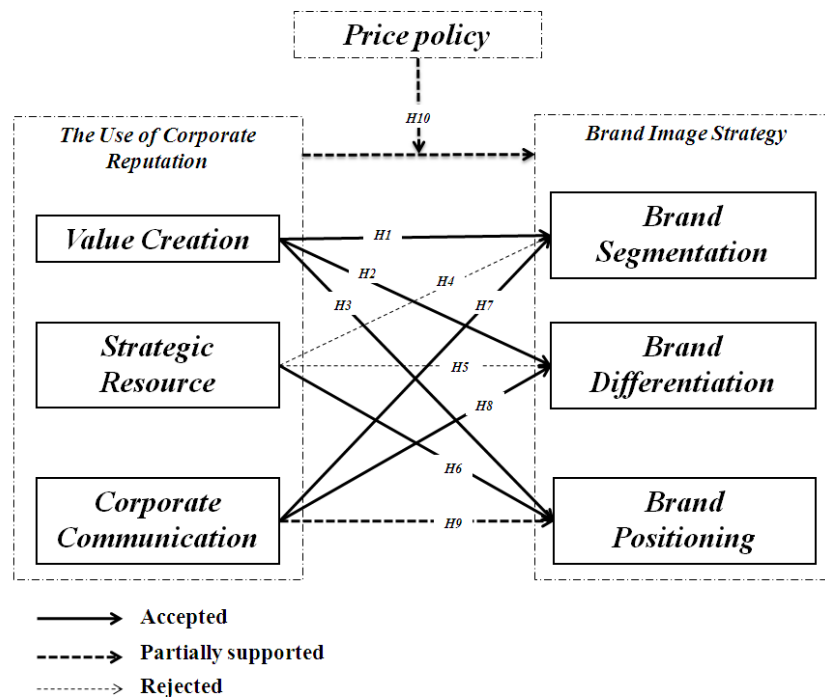
Table 5.45: Table of hypothesis about the relationship test results

Hypothesis	Hypothesis	Test results
H1	A firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand segmentation strategy.	Accepted
H2	A firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand differentiation strategy.	Accepted
H3	A firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand positioning strategy.	Accepted

H4	A firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand segmentation strategy.	Rejected
H5	A firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand differentiation strategy.	Rejected
H6	A firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand positioning strategy.	Accepted
H7	A firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand segmentation strategy.	Accepted
H8	A firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand differentiation strategy.	Accepted
H9	A firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand positioning strategy.	Partially supported
H10	Medicine price moderate the relationship between the uses of corporate reputation and brand image strategy.	Partially supported

Resource: Developed by the author for the current research

Figure 5.9: Final results diagram



## 5.6 Results of Testing the Hypotheses

The results are presented in four stages. It is because of the items were firstly, at the second round, deleted on the basis of the outer loading that is below 0.7. At the third

round analysis the three highest loadings items of each construct were selected as the measurements of each construct. At the fourth round the unsupported correlations were deleted on the basis of Henseler et al.'s (2009) suggestion of the analysed sample size. In total, ten hypotheses were tested (see Table 5.22). The implications of these results are further discussed in Chapter 6.

**H1: Value creation and brand segmentation (VC→BS)**

As shown earlier, hypothesis H1 explained the relationship between the exogenous variable (Value Creation) and endogenous variable (Brand Segmentation). As outlined in Table 5.44, the hypothesized relationship was found to be significant ( $t$ -value = 4.468). Thus, this hypothesis was supported.

**H2: Value creation and brand differentiation (VC→BD)**

As shown earlier, hypothesis H4 explained the relationship between the exogenous variable (Value Creation) and endogenous variable (Brand Differentiation). As outlined in Table 5.22, the hypothesized relationship was found to be significant ( $t$ -value = 2.201). Thus, this hypothesis was supported.

**H3: Value creation and brand positioning (VC→BP)**

As shown earlier, hypothesis H7 explained the relationship between the exogenous variable (Value Creation) and endogenous variable (Brand Positioning). As outlined in Table 5.22, the hypothesized relationship was found to be significant ( $t$ -value = 3.520). Thus, this hypothesis was supported.

**H4: Strategic resources and brand segmentation (SR→BS)**

As shown earlier, hypothesis H2 explained the relationship between the exogenous variable (Strategic Resources) and endogenous variable (Brand Segmentation). As outlined in Table 5.22 and Table 5.44, the hypothesized relationship was found to be insignificant ( $t$ -value = 0.758) in the second round. Thus, this hypothesis was rejected.

**H5: Strategic resources and brand differentiation (SR→BD)**

As shown earlier, hypothesis H5 explained the relationship between the exogenous variable (Strategic Resources) and endogenous variable (Brand Differentiation). As outlined in Table 5.22, the hypothesized relationship was found to be insignificant ( $t$ -value = 1.256) in the second round but insignificant in the second round ( $t$ -value =

0.454). Thus, this hypothesis was not supported.

**H6: Strategic resources and brand positioning (SR→BP)**

As shown earlier, hypothesis H8 explained the relationship between the exogenous variable (Strategic Resources) and endogenous variable (Brand Positioning). As outlined in Table 5.22, the hypothesized relationship was found to be significant ( $t$ -value = 2.834). Thus, this hypothesis was supported.

**H7: Corporate communication and brand segmentation (CC→BS)**

As shown earlier, hypothesis H3 explained the relationship between the exogenous variable (Corporate Communication) and endogenous variable (Brand Segmentation). As outlined in Table 5.22, the hypothesized relationship was found to be significant ( $t$ -value = 2.068). Thus, this hypothesis was supported.

**H8: Corporate communication and brand differentiation (CC→BD)**

As shown earlier, hypothesis H6 explained the relationship between the exogenous variable (Corporate Communication) and endogenous variable (Brand Differentiation). As outlined in Table 5.22, the hypothesized relationship was found to be significant ( $t$ -value = 3.119). Thus, this hypothesis was supported.

**H9: Corporate communication and brand positioning (CC→BP)**

As shown earlier, hypothesis H9 explained the relationship between the exogenous variable (Corporate Communication) and endogenous variable (Brand Positioning). As outlined in Table 5.22, the hypothesized relationship was found to be insignificant ( $t$ -value = 1.935) in the second round but significant ( $t$ -value = 2.303) in the third round. Thus, this hypothesis was partially supported.

**H10: Moderating effect of medicine price and brand image**

As shown earlier, hypothesis H10 explained the moderating effect of the relationship between the uses of corporate reputation and brand image strategy. The hypothesized relationship was found to be significant ( $t$ -value = -3.077) in the first round analysis. However, in testing the moderating effect on each relationship respectively, as outlined in Table 5.23, none of the moderating effects tested as significant. Thus, this hypothesis was partially supported.



## 5.7 Summary

This chapter reported the results of the data analysis for the quantitative phase of this thesis. Following this, the demographic characteristics of this sample are described. The two-step procedure of Anderson and Gerbing (1988), which required measurement models to be estimated before the structural analysis, was followed. The items for the exogenous constructs were derived from the literature and the qualitative interview. After running the reliability test, it was decided to delete 12 items from six constructs, as they were highly cross-loaded on other factors that could not be theoretically justified, had low communalities or low reliability. And in the second round analysis, 39 items with a factor loading below 0.7 were deleted (Henseler et al., 2009).

The second part of data analysis is the use of SEM, which was conducted in two stages: the measurement model and the structural model. In the first stage, the fit for the measurement model was assessed by using a CFA. At this point, the assessment of all indicators was highly loaded on their specified factors and the overall goodness-of-fit indices suggested acceptance of the model. Each construct was then tested for reliability and validity.

Cronbach's alpha, composite reliability and average variance extracted (AVE) were higher than the required values. Accordingly, all constructs were reliable. In addition, convergent, discriminant and nomological validity for each construct were confirmed.

The next stage, the assessment of the structural model, has also been undertaken. The structural model results showed that out of ten hypotheses, six pathways were significant. The structural model indicated that three variables (value creation, strategic value and corporate communication) had a different level of impact on three constructs of brand image strategy. Thus the model provides a strong test of the hypothesized relationships between the constructs of interest. We have completed GoF indices suggested by Tenenhaus et al. (2005) and it was 0.738.

The moderating effect of medicine price on the impact of the three dimensions of the uses of corporate reputation on the three dimensions of brand image strategy was tested. The results showed that the medicine price construct has a negative effect in moderating

the impact of the uses of corporate reputation on brand image strategy. Therefore, the hypothesized moderating effect of medicine price on the relationship between the uses of corporate reputation and brand image strategy was confirmed. However, in the second round of analysis, the moderating role of medicine price was tested for the relationship of each construct in the uses of corporate reputation and each construct in brand image strategy. The results show that none of the moderating effects was significant, but that the medicine price is significant as a predictor for the brand segmentation construct.

The next chapter discusses the above results in detail in order to answer the research questions outlined in Chapter 1. Further, it draws the implications for both practice and theory, discusses the limitations of this thesis, describes the directions for further research and identifies the final conclusions.

## **CHAPTER SIX: RESULTS AND DISCUSSION**

### **6.1 Introduction**

The purpose of this thesis was to investigate the role of the uses of corporate reputation in building brand image strategy and the results of this study were presented in the previous chapter. In this chapter we will discuss the validation of the measurement model and the research findings in more detail. The findings are ‘fleshed out’ in greater depth by incorporating qualitative findings where appropriate. The findings are then further discussed in terms of the contribution to marketing theory and relevance to marketing managers. In the previous chapter, the items of adapted scales were subjected to several rounds of adjustments and were finally found to possess acceptable measurement properties. Reliability and construct validity tests indicated that all scales satisfied widely accepted criteria such as the minimum reliability of 0.7.

The structure of this chapter is as follows. First, the results of scale purification will be discussed. Second, an evaluation of the research hypotheses and their significance are summarized and the findings of all hypotheses testing will be reviewed and compared with previous research.

### **6.2 Overview of Study**

This research project examined the concept of the uses of corporate reputation and its dimensions. The study involves factors of the uses of corporate reputation that are most likely to have a significant influence on brand image strategy within the context of the Taiwanese pharmaceutical industry. The topic is important because in recent decades, it is difficult but important for a firm’s product to compete in the market and distinguish itself from competitors (Dennis et al., 2002; Lili, 2010; Cheng et al., 2010). The uses of corporate reputation were claimed to affect managers’ decisions when applying a firm’s brand image strategy (Hatch et al., 1998; Bickerton, 2000; Cretu and Brodie, 2007). As a consequence, interest in the uses of corporate reputation has increased at an

astonishing rate (see Chapter 2). However, so far, very limited empirical research has been carried out in this area to capture the true meaning of the concept (Gale, 1994; Cravens et al., 2003). Furthermore, a few companies properly adopted the uses of corporate reputation, but most companies failed to do so because the literature lacks an integrative theoretical framework to address this research problem (Balmer, 2001a).

A multi-method approach was adopted to investigate this research problem. A sequential approach consisting of qualitative research, which acts as the foundation for the quantitative study, was implemented. The qualitative findings generally showed that three dimensions of the uses of corporate reputation (i.e. value creation, strategic resources and corporate communication) are applicable to managers' brand image strategy implementation for the Taiwanese pharmaceutical industry. The findings were consistent with other studies on brand image strategy (Urde, 2003; Knox and Bickerton, 2003; Foreman and Argenti, 2005). A qualitative method was used, in conjunction with quantitative methods, to investigate a domain of the uses of corporate reputation that has received little attention to date (Cable and Graham, 2000; Srivoravilai, 2006).

A questionnaire was developed on the basis of the reviewed literature and the qualitative study to quantify, supplement and complement the first stage. The theoretical model was then operationalised in this stage.

As mentioned earlier, in Chapter 4, items generated from both literature review and qualitative studies were subjected to qualitative and quantitative refinements. Next, the developed scales were tested using statistical data reduction techniques, i.e. confirmatory factor analysis (CFA) in the main survey.

The quantitative data was analysed by using PLS 1.04. Additionally, the constructs of interest showed a high degree of reliability, convergent and discriminant validity. A number of statistically significant pathways were confirmed between the uses of corporate reputation and brand image strategy constructs, with satisfactory fit indices for both the measurement and structural model. Finally, the overall structural model was evaluated and a discussion of these findings is described in the next section.

A conceptual model was developed that showed the impact of the uses of corporate reputation that influenced brand image strategy as a consequence. The model was then

tested using a sample of Taiwanese pharmaceutical managers. The results of the tests demonstrate strong support for the model. Specifically, the measurement model is assessed in the main study using the particular samples of Taiwanese pharmaceutical managers. The confirmatory factor analysis (CFA) showed that the model received a significant fit to the data, following the principles recommended by Anderson and Gerbing (1988), Tabachnick and Fidell (2001) and Hair et al (2006).

In testing the hypothesized model, the results presented in Table 5.44 indicated that the hypotheses H1, H2, H3, H6, H7 and H8 were supported. The standardized estimate for these hypotheses were all significant (= 0.398, 0.406, 0.253, 0.640, 0.432, 0.507, respectively). The hypotheses H9 and H10 were partially supported. The hypothesis H4 and H5 were rejected because it was not statistically significant. The following section evaluates the conceptual model by first summarizing the supporting evidence for the hypotheses.

### **6.3 Measurement Scale Purification**

The first issue to be discussed is the operationalisation and validation of concepts in this study. As mentioned in Chapter 4, the researcher developed measurement scales by extracting items from existing literature scales and qualitative interviews. Face and content validity were also examined by academic experts and interviewees. Additionally, the developed measurement scales were subjected to data reduction in CFA and several statistical tests (e.g. convergent and discriminant validity test, composite reliability test, etc.).

Overall, the finalized scales were found to have satisfactory validity and reliability and were subsequently used in the hypotheses testing. In addition, some issues can be observed as follows. First, the operationalisation of constructs was shown to depend on research settings (e.g. country, culture, industry, etc.) For instance, when the pharmaceutical managers were asked to explain how the brand image strategy is applied, more emphasis was placed on sales experiences. This resembles the findings of studies such as Flynn (2000), Kargar (2005) and Aura (2010).

Another example is the applicability of measurement items to items of the strategic resources tactics with a firm's corporate reputation. A respondent suggested that the uses of a firm's reputation would "gain the firm more opportunity for strategic alliance or business cooperation". Based on the Taiwan market environment, this argument would be appropriate only for huge generic pharmaceutical companies. This is mainly due to the differences in the corporate strength and a tricky combination of each company's different core values.

Second, the dimensionality of almost all constructs is consistent with those reported in extant literature. For instance, the CFA is applied to confirm the underlying structure among the variables in the analysis of three constructs in the uses of corporate reputation and three constructs of brand image strategy.

In summary, the findings of the scale purification suggest two main points. First, when a scale is applied to another context, it is necessary to measure the relevance of the definition and the operationalisation of the old scale (Sekaran, 1983; Douglas and Nijssen, 2003; Srivoravilai and Melewar, 2003, 2005) to achieve the validity of substantive inferences (Singh, 1995). A vital question may be whether the same construct exists in another context. And even if it exists in another context, it may not have the same items (Craig and Douglas, 2000, p.256).

Second, to ensure the applicability of adapted scales, it is important to assess external validity in addition to internal criteria (i.e. reliability and validity) (Craig and Douglas, 2000, p. 257). In this study, qualitative methods have been employed (Groenland, 2002) to evaluate the constructs in a Taiwan context and quantitative techniques were used to examine factorial similarity (i.e. whether scale items load on the same factors as those in original scale) (Singh, 1995).

#### **6.4 The Uses of Corporate Reputation: Antecedents of Brand Image Strategy**

The quantitative findings show that six out of ten hypotheses were supported, three were partially supported and one was rejected. Therefore, the uses of corporate reputation

were proved to be somewhat significantly associated with brand image strategy. Moreover, medicine price was found to play a partially negative moderating effect on the relationship between the uses of corporate reputation and brand image strategy.

Despite the importance of the theme of the uses of corporate reputation, the construct of the uses of corporate reputation is not well defined in the marketing literature. A few definitions of the uses of corporate reputation (discussed earlier in Chapter 2), and also an analysis of those conceptualizations have been provided (according to Chapter 2, the conceptualization of the uses of corporate reputation has been taken from six paradigms). Moreover, items of the construct were found in the literature (Dickson and Ginter, 1987; Wong and Saunders, 1993). Even there, insufficient empirical research has been done on finding out the uses of corporate reputation from the managerial perspective, especially in relation to the brand strategy implementation. This study therefore attempted to gain meaningful degrees of understanding of the uses of corporate reputation construct by using qualitative interviews.

The findings of the qualitative study were treated as indicative only due to the qualitative nature of the study. Furthermore, quantitative research was carried out to confirm the results of the qualitative study. The quantitative results, specifically, illustrated three aspects of the uses of corporate reputation construct in the context of the Taiwanese pharmaceutical industry.

This part of the discussion will start from hypotheses about the impacts of the three constructs of the uses of corporate reputation on brand segmentation (H1–H3), which will then be followed by hypotheses about the impacts of the uses of corporate reputation on brand differentiation (H4–H6) and brand positioning (H7–H9). Then the results of the test of moderating the relationship between the uses of corporate reputation and brand image strategy (H10) will be explained. Next, the limitations of the current study and recommendations are outlined. Finally, implications for future research are explored. The first implication focuses on the value creation ability that a firm possesses so it becomes a core value to compete with other competitors.

#### **6.4.1 Effects of the Uses of Corporate Reputation on Brand Segmentation**

In this study, two of the uses of corporate reputation have a statistically significant relationship with brand segmentation. The relationship between each kind of use of corporate reputation (i.e. value creation, strategic resources and corporate communication) and brand segmentation is somehow found to be positively related. First, the relationship between value creation and brand segmentation has been found to be statistically significant. Second, the relationship of strategic resources to brand segmentation has been rejected. Last, the relationship between corporate communication and brand segmentation was also found to be statistically significant. This suggests that, other things being equal, the more a firm concentrates its focus on its value creation ability and corporate communication, the easier it will be to build its brand segmentation strategy.

In general, a pharmaceutical company that implements brand segmentation strategy signals that the firm has solid and strong marketing capabilities. A pharmaceutical company that achieves brand segmentation means that to a certain level it can manage its company reputation very well. In addition, a pharmaceutical company depends on how its sales or marketing managers use their reputation to establish a solid and strong image in its customers' minds (Temporal and Burnett, 1993; Ensign, 1998).

According to Table 5.44, another issue should also be noted. It is managerially and theoretically fruitful to understand what type of the uses of corporate reputation has more impact on brand segmentation as previously not enough literature has addressed this issue. The researcher therefore assessed the relative influence of each dimension of the uses of corporate reputation on brand segmentation by comparing their path coefficients.

In this case, the path coefficient of value creation ( $\beta = 0.398$ ) is only slightly different from that of corporate communication ( $\beta = 0.406$ ), this indicating the relatively equal importance of value creation and corporate communication. This is considered sensible, at least in the Taiwanese pharmaceutical context, because value creation demonstrates that not only can the company create value for its consumers – by which the consumers can evaluate a firm's R&D ability – but it also shows that if a company can organize a good marketing campaign, which will benefit its customers. At the same time, corporate



communication depicts the importance of activities and actions by which consumers' impressions of a firm will be further formed. Moreover, a firm's value cannot be perfectly shown if the corporate communication doesn't do a good job in communicating this value to the public. Therefore, a similar weight of importance using quantitative analysis is considered to be reasonable.

According to the literature and qualitative data results, value creation (the value created either for the customer or for the firm) can be divided into four categories: functional/instrumental, experiential/hedonic, symbolic/expressive, and cost/sacrifice. The current research is based on the firm's perspective, and thus value creation herein pertains to the value created for the firm.

- Cost/sacrifice and symbolic/expressive value

*At present, the top 10 local pharmaceutical companies are listed companies, except for TBC. This is because its director has an accounting background and is very sensitive to numbers. He wanted to build the corporate reputation himself. From 1945, TBC focused on the intravenous drip and did well with it. Starting 20 years ago, we started to build OLAHOME. It has been going well. Now we are going into the healthy food market, signing a contract with Carrefour and opening a store inside of Carrefour stores. It is TBC's cosmetics store. And the board chairman is the TBC board chairman's son. Now we are a team helping this business. This is how we use our corporate reputation to extend the business. Also, we can use corporate reputation to make a leveraged buyout. [Manager in company A]*

- Symbolic/expressive value

*If you can enter the market earlier, even this is not a new thing. Usually only foreign-funded enterprises do this, and their R&D are not in Taiwan. They usually have several centres, one in New York, one in Australia, and one in Asia Pacific, usually in Japan, or Singapore. It is because Taiwanese local pharmaceutical companies don't deal with this part. Only foreign-funded company try to enter the market in advance. They schedule the top line for the most recent ten years, three years, and five years. In every category they try to manage the company in several areas, such as CV, heart department, and metabolism department etc., which are categorised as aged problem. Because the organs function is in decline when people get old. [Manager in company A]*

- Experience/hedonic value

*Although TBC is not a listed company, it has shareholders. So before they make any decision, they have to report to the board of directors, let them understand what's the next step the company is heading to,*

*such as an overall market layout for the next year. However, the message the company sends to its customers is very important. It relies on the sales people because it has so many similar things. For example, for metabolism, almost every company has this medicine because so many people have diabetes. It means that each doctor is approached by five or six sales people from different companies. So why do I use your brand?* [Manager in company A]

A pharmaceutical company's value creation ability can be used as a statement of its corporate reputation. It may become known for creating functional value with a high standard of product; it may also create a good impression through the use or purchasing of its product or its customer service; it may also be known for having the long history or having an iconic impression in the industry, or for saving the customer's money or having the lowest cost for its product. The value created for the customers is judged by the customers to be helpful in their life. Slowly the customers benefit from the value that a firm has created for them, will start to appreciate the company as a reputable one. In this way, managers can build with that for segmenting their customers, depending on customer needs.

A firm can apply the following activities to improve its segmentation strategy and build best practices: First, a firm should strive to enhance its value-chain activity to make it consistent with experiential value creation—for example, integrating the medicinal material supply with innovation, R&D, manufacturing, and after-sales service. Second, the firm should allocate resources to be more consistent with experiential value creation. Third, the firm should try to enhance the customers' self-identity. Fourth, the firm should communicate more effectively with shareholders and other stakeholders to shape their perceptions about the firm. Fifth, the firm should build customer relationship. Sixth, the firm should negotiate with competitors to take advantage of joint resources and to ensure its product suits the market better. Seventh, the firm should negotiate with the government to affect policy.

However, in practice, recently the National Health Service (NHS) in Taiwan changed its medicine price policy. As a result of focusing on cutting the medicine price, pharmaceutical companies received little benefit from elaborating their brand. Distinguishing a brand either by more functional or experiential value created in their products cannot provide a higher benefit, therefore causing fierce price competition. The effects on medicine price policy are stated by a manager as follows:

*“We, the Gentle Pharma., are less than excellent, but more than general. This is to boast ourselves. So we can segment the market, that you can buy a bit less than excellent, but much cheaper. Maybe they will accept us. So we just follow the excellent companies. We don’t compete with the cheapest ones. We compete with the excellent ones. This is our position of our company or brand you can say. But nowadays there’s no difference between each company after the NHS set up the price policy. We don’t have the price difference for the NHS price. And moreover now the hospitals only want the price difference when they bid for the medicine.”*  
[Manager in company C]

*“Now in Taiwan we are trying to carry out the PIC/s (The Pharmaceutical Inspection Cooperation Scheme) standard. It means we are following the international GMP standard. However, they want us to go through the PIC/s standard examination. They will send a representative to examine our factory. So we have to reach the PIC/s standard if we want to sell our product to Europe or England.”* [Manager in company C]

A pharmaceutical company can also use its corporate reputation to apply brand segmentation. A pharmaceutical company can enhance its corporate reputation by making it qualified to the PIC/s. From time to time, the requirement for GMP (Good Manufacturing Practice), CGMP (Current Good Manufacturing Practice) and nowadays PIC/s makes the new pharmaceutical companies improve their hardware and software. Then they are qualified to export their products to advanced countries (i.e. Europe, America etc.).

In this specific industry, in this particular environment, the researcher found that the result doesn’t support these hypotheses perhaps for the following reasons. That is:

*“If I say now I want to sell to China, I will have a different corporate reputation with a Chinese company. The corporate reputation will create segmentation, as does the price segmentation. Now Taiwan can be approved by international markets. Actually the Chinese may achieve the US FDA standard and Taiwan can also achieve the US FDA. Everyone producing the product can achieve the US FDA standard. Actually if we talk about strategy, products from everywhere we shall consider as having the same quality. We consider that for one company, even if they have factories all over the world, the same company product should go through the same standards of quality control.”* [Manager in company D]

## **6.4.2 Effects of the Uses of Corporate Reputation on Brand Differentiation**

According to Dannenberg and Kleinhans (2004), brand management is becoming the central capability for auto makers to differentiate themselves. And value creation occupies an important part of the brand management in the vehicle engineering and production. Moreover, according to Sheth and Parvatiyar (1995), “in the face of competition, marketers realized the benefits of focusing on specific groups of customers for whom they could tailor their marketing programs and successfully differentiate themselves from their competitors” (Peterson, 1962) by providing different value created to their customers. Also according to Lynch and Chernatony (2004), emotional brand value development may also cause value creation for their customers that can be a means of developing a sustainable differential advantage.

According to Table 5.44, the researcher assessed the relative influence of all types of uses of corporate reputation on brand differentiation by comparing their path coefficients. The direct effects of two dimensions of the uses of corporate reputation (e.g. value creation and corporate communication) on brand differentiation were found to be positive and statistically significant. However, the relationship between strategic resource and brand differentiation had to be rejected. This suggests that, given that all other factors are equal, the more value creation is employed, and the more corporate communication is established by a firm with their customers, the easier it is to build a firm’s brand differentiation strategy.

In this case, the path coefficient of value creation ( $\beta = 0.253$ ) differs hugely from that of corporate communication ( $\beta = 0.640$ ). This indicates a higher importance for corporate communication than the value creation on the brand differentiation. This is considered reasonable in the Taiwanese pharmaceutical context because how a brand is differentiated from another depends more on how a firm communicates with its stakeholders (e.g. by using advertisements or showing how professional are its sales representatives) than on the real value a firm creates for its customers.

Moreover, according to the literature and qualitative results of data, several issues were raised by the interviewees regarding the uses of corporate reputation on building the brand differentiation strategy. For example, the NATURAL-oriented products were created as a value added to the brand by company D. And a manager in company F suggested doing differentiation from the customer's side.

*“Nowadays there are many things using herbal products; some cosmetics are herbal too. They say ‘We don’t use chemical stuff, but use herbal products’. So this is included in a firm’s reputation. Before, our cosmetics usually added some fragrances, nowadays there’s less fragrance in them. Cosmetics actually don’t need any fragrance because it just has to protect us. But fragrance is just a thing that makes you more comfortable, and is not helpful in protecting us. So nowadays people use this kind of strategy that emphasizes that the product is more natural – which the added fragrance was not since it is distilled from other stuff. Therefore, a firm’s reputation creates the brand value and brand differentiation.”*  
[Manager in company D]

*“I strongly agree with this idea. And I would rather hope to create differentiation from the customer side. This means we shall apply a differentiation strategy for pharmacists and doctors. Because the differentiations of medicine, unlike food, are very rigid and confined, there is not too much variance for them. If you want to create brand differentiation, rather than product differentiation, I would suggest creating it from the customer side. And do it reversely. It will come out with the same result. Because whether it is product differentiation, or customer differentiation, with both what you have to influence is the result. Therefore, from the customer side to apply brand differentiation, one way of doing it is through sales behaviour, and the other one is customer service.”*  
[Manager in company F]

*“As I mentioned before, our success is because of signing the contract. Our contract is very flexible, and variable. It aims to let the front line people change the contract decision according to the customer’s needs. It is not necessary to reach a big amount for us to agree to send the product. Because some of the clinics are too small they can only order a very small amount of stock – maybe not even one thousand in one season. Therefore, in order to cooperate with these clients, our contract is flexible and variable.”* [Manager in company F]

*“I think so. However, for brand positioning, communication is related to the different ways that the shareholders deal with things. All these will influence customer choice. And the customer’s*

*choice is related to knowledge transferring. In other words, this is one kind of customer service. For example, nowadays each month we issue a magazine called Yun-Shin medicine information. We usually distribute the magazine to doctors, drug store pharmacists etc. In this magazine it usually discusses about the topics of medical common sense, or clinical experiments from abroad, our product conditions etc. Therefore, our corporate reputation can help us find some information, and some communication tool. This product provides this kind of service, it has some educational position. It is because the professionals don't really have spare time to read other books. However, this magazine has satisfied their wish to update their knowledge. Since there is no other company doing this, the customers would consider our company to have better service quality. Some products have side effects, some newly issued drugs that might affect some races but others not etc. Such information is needed by doctors. Most people think it's reasonable to spend time to get the most updated information. Therefore, it shows our brand positioning has its own value."*  
[Manager in company D]

The non-significant coefficient of strategic resources indicates a different view from that of marketing research as existing literature generally suggests that the more uses of strategic resources for a firm's reputation, the better a firm can apply their differentiation strategy (Yeoh and Roth, 1999; Cornwell et al., 2001; Priem and Butler, 2001). On the other hand, respondents from follow-up interviews did not fully agree with this statistical finding as they showed their mixed comments on the relative importance of three dimensions of the uses of corporate reputation. Some interviewees put more emphasis on customer service whereas others stressed the importance of corporate communication such as knowledge transferring and advertising. For example, the quote from the manager in company F (see above) does not support the statistical finding, whereas the comments from manager in company D do. These mixed views reveal a need for further examination of the relative significance of different types of corporate reputation use. Future research on this issue should help researchers and practitioners to better understand about how to use a firm's corporate reputation to benefit its differentiation strategy.

A pharmaceutical company can also enhance its branding strategy through other uses of corporate reputation, including value creation and corporate communication. Both the quantitative and the qualitative data show that when pharmaceutical company managers use value creation and corporate communication to implement their brand

differentiation strategy (Holsapple and Singh, 2001; Lynch and de Chernatony, 2004; Harrington, 2007), they reach their targets more easily. Thus, companies can apply the same seven activities as mentioned previously: that is, firms should (1) strive to enhance its value-chain activity to make it consistent with experiential value creation, (2) allocate resources to be more consistent with experiential value creation, (3) try to enhance the customers' self-identity, (4) communicate more effectively with shareholders and other stakeholders to shape their perceptions about the firm, (5) build customer relationship, (6) negotiate with competitors to take advantage of joint resources and to ensure its product suits the market better, and (7) negotiate with the government to affect policy, all to improve their brand differentiation strategy and build best practice. Moreover, according to Lynch and de Chernatony (2004) and Harrington (2007), firms can implement the strategy in two ways: One is based on emotional characteristics, and the other is based on knowledge sharing (Holsapple and Singh, 2001).

The statistical support of H4 and H6 (value creation and corporate communication is positively associated with brand differentiation) is evidence of this claim. Moreover, this finding also confirms and expands existing knowledge in other research such as corporate communication (Shelby, 1993). For instance, it provides an explanation as to why there is a relationship between corporate communication and knowledge transfer (Von Krog et al., 1997; Van Riel and van Bruggen, 2002).

#### **6.4.3 Effects of the Uses of Corporate Reputation on Brand Positioning**

Finally, the relationship between two dimensions of the uses of corporate reputation (e.g. value creation and strategic resources) and brand positioning is also found to be supported in statistical analysis. Moreover, the relationship between corporate communication and brand positioning is found to be partially supported. This suggests that, all other things being equal, the more a firm can create value for its customer, and the more a firm uses their corporate reputation as a strategic resource, the easier it will be to build its brand positioning strategy.

According to Table 5.44, another issue should also be noted. It is managerially and theoretically fruitful to understand that the uses of corporate reputation have an impact on brand positioning. The researcher assessed the relative influence of all types of uses

of corporate reputation on brand differentiation by comparing their path coefficients. The direct effects of two dimensions of the uses of corporate reputation (e.g. value creation and strategic resources) on brand positioning were found to be positive and statistically significant. However, the relationship between corporate communication and brand positioning is found to be only partially supported. This suggests that the more value creation is employed, and the more strategic resources are applied by a firm to their customers, the easier it will be to build a firm's brand positioning strategy.

In this case, the path coefficient of value creation ( $\beta = 0.432$ ) is not very different from that of the strategic resources ( $\beta = 0.507$ ). This indicates that the use of corporate reputation as strategic resource is somehow more important than the use of corporate reputation as value creation in brand positioning strategy. This is considered reasonable in the Taiwanese pharmaceutical context because using the corporate reputation as a strategic resource, for example, to enter the market early, and to obtain large cash resources can help a firm to provide its brand with a good image in the consumer's mind. In addition, a firm's value creation ability can create an image for the consumer's mind. And the managers can use this kind of core competence as an announcement to the public that the firm's R&D is strong so customers can trust it. Such a relationship showed that value creation ability enhances brand positioning strategy. This finding helps to further explain evidence pertaining to research about value-based theory.

Moreover, according to the literature and qualitative result of data, there are several issues raised by the interviewees regarding the uses of corporate reputation in building the brand positioning strategy. For example, the products from Taiwan are considered as top market products in China.

*"In China, our product is sold as a better value than products from Europe. Maybe it is because luckily it was a turning point in the market condition. Actually some of the European companies, such as Bayer, were angry with this. A previous government official had heart disease. He was having treatment in the heart department in one of the big hospitals in Beijing. They use the Bayer Aspirin. It is commonly known that it will cause discomfort in the stomach when one takes aspirin. So this old person was feeling uncomfortable in the stomach. Afterwards we went to see that doctor, and told the doctor that if you take our pill, then your stomach will not get uncomfortable. Therefore, this product has the advantage of no side effects. Because people with heart disease are usually elders, for safety reasons, they use our product. So we changed a little bit*



*from the original product, and added some other ingredients, so it has fewer side effects. Under these circumstances, I think in the beginning we can ask a higher price, meaning we can position our product in a higher market. This product was then taken off the market but brought back again because they say it's very effective medicine and safe. So the market was back for this product. So our firm's corporate reputation signifies that our product is effective and safe. It therefore can be positioned as a high priced product. And also, it will lead other product.... ” [Manager in company D]*

*“From the product point of view, let me take Yin-Yuan as an example. We have three companies, one is Yin-Yuan, another one is Yin-Jie and the third one is Yin-An. The positioning strategy for each company is clear. Yin-Yuan is targeting everyday products, such as headache pain killer, flu and syrup etc. Yin-Yuan has everything you want. If you cannot find something in the market, just give a phone call to Yin-Yuan see if we have it. The other one is Yin-Jie. There are above 50% of its performance comes from eye-drops. Eye-drops are Yin-Jie's competitive product. Therefore, now we faced a problem, which is the blind competition from the new competitor in this area..... However, through last year, we found that the situation is not that bad. We traced back that the reason for this might be an important action that we did, which was to sign a contract. This action protected us from the severe competition. The other company Yin-An was focusing on injections.” [Manager in company F]*

The positive relationship between strategic resources and brand positioning can be explained by the interviewee's way of locating different resources in each company (Bowman and Hurry, 1993). This postulates that a firm can manage its reputation by allocating similar resources together and targeting different customers (Turnbull and Valla, 1993).

*“If I want to make an advertisement, I would have to collect a big amount of funds from others. The original company might spend a billion pounds of operating fees for a new product to enter the market. Maybe I can build my company image or reputation through marketing channels in order to advertise or market my company. Believe it or not, if you have a distributor, you should offer a seminar when you want your new product to enter the market. You should position this product and make the consumer confident about it. For example, in sales marketing, the advertisement may target the consumers.... Or it aims to influence customers' perception of such a marketing strategy. Or they can hold a seminar, in order to build up a new product line. However, as a product manager, I will have to coordinate this, which is called “psychological education” or “confidence education”.*

*Because if others doubt your product and the salesperson is afraid, they cannot get a good performance. Therefore for a good marketing manager, confidence is very important. It is important to believe in his product when selling it. Second, he needs to think the product is good too, so that he can answer customer's questions and explain to them. Then you will get good performance. So you can market your corporate reputation and brand to your agent, your salespeople, and then to the customers. And then use advertisements to market to your consumers. This is marketing strategy." [Manager in company B]*

A firm can undertake activities as best practice to achieve a better brand positioning strategy. These activities include (1) improving its value-chain activity to make it consistent with experiential value creation, (2) allocating its resources to be more consistent with experiential value creation, (3) enhancing the customers' self-identity, (4) entering the market earlier, (5) more efficiently managing the marketing system and (6) maintaining customer relationship. These activities give the brand a clearer image, provide consumers with a more thorough understanding of the firm and the brand and effectively transfer the product or brand information to the consumers.

In summary, this chapter provides comments on the results of the measurement scales purification and hypotheses testing. Follow-up interviews have been used as a tool to help explain the findings. Both statistical findings and interview results support a proposition that a company may be able to apply brand image strategy via knowledge transfer and conformity with international manufactory standards (e.g. GMP, cGMP, PIC/s... etc.) (Li and Houston, 2001). Moreover, good brand image strategy is confirmed to be positively associated with the proper use of a firm's corporate reputation such as value creation and corporate communication. However, some comments from interviewees raise questions about the external conditions or environmental factors (government policy) which may distort or even suppress the relationship found in this study. For instance, it has been noticed that the uses of corporate reputation may not lead to brand image strategy setting if price regulation has interfered in this relationship.

Finally, the medicine price is found to negatively moderate the relationship between the overall uses of corporate reputation and the overall application of brand image strategy (H10). According to Table 5.18, a negative overall moderating effect was found in the

statistical test. This indicates from the interviews that the medicine price was playing an important moderating role, even though there was not enough literature to support this view. After the statistical test, it turned out there was not support for each path. Therefore this suggests that the medicine price is partially and negatively supported in the relationship between the uses of corporate reputation and brand image strategy.

In the next chapter, theoretical, managerial and policy implications will be presented. Research limitations will also be noted and other potential research directions will be discussed in more detail.

## **6.5 Recommendations**

Several decades ago, when the Taiwan economy was growing rapidly, the Taiwanese government tried to increase and strengthen the development of small and medium-sized enterprises. Therefore, the pharmaceutical industry in Taiwan generally comprises private, small and medium-sized firms. Moreover, Taiwan's government now also encourages the transformation of economic status and firm development and upgrading in such a crowded business environment. For example, many of the Taiwanese manufacturers currently applying the original equipment manufacturer (OEM) business model are transforming their model to one based on branding.

This study categorised three types of pharmaceutical companies according to the size of the firm; size is a key feature to measure the amount of production or transaction of the business in the Taiwanese pharmaceutical industry. Therefore, the study used the total number of employees, as follows: small (0–49 employees), medium (50–299 employees) and large (more than 300 employees). First, compared with smaller firms, larger firms tend to have more capital, are more influential and tend to assume a leading role in the industry. Therefore, this study recommends that these firms pay more attention to corporate social responsibility and the feedback it receives to transform their 'corporate philosophy' into practice, thus gaining a higher corporate reputation. Moreover, because larger firms are more powerful than smaller firms, they are better able to negotiate with the government to set new policies to benefit and direct industry rights and interests,

thereby also benefiting small and medium-sized firms' strategy decision. Thus, larger firms tend to maintain a leading role in the industry.

Second, medium-sized companies can adjust their value-chain activity and resource allocation to be more consistent with experiential value creation (happiness, affection and excitement), and thereby enhance their customer identity. These points emphasize the role of customers' experiences and how customers see the firm. The company thus should create more experiential value for customers, because within this 'self-experience', customer can learn the companies' self-identity more easily (who they are and what they think they are).

Third, small firms also should improve their value-chain activity and resource allocation to align with international standardised processes, thus creating a functional value to the customers. After gaining the customers' basic trust about product quality, these firms can begin to build their reputation by creating functional/good-quality products, the foundation of the pharmaceutical industry. Moreover, small firms can try to revise components of generic medicine to improve the effectiveness of the medicine itself or attempt to build their R&D to undertake more underlying functions of a medicine.

## **CHAPTER SEVEN: CONCLUSION**

### **7.1 Introduction**

This research examines the roles of the uses of corporate reputation (i.e. value creation, strategic resources and corporate communication) factors in the process of brand image strategy building. It also investigates how medicine price plays a moderating role in the relationship of the uses of corporate reputation and brand image strategy in the Taiwanese pharmaceutical industry. The study helps fill research gaps mainly by providing alternative insights to the uses of corporate reputation on the consequences of applications in brand image strategy and by testing theories in a non-western setting to increase their external validity. The study employs a hybrid methodology comprising a dominant quantitative (i.e. survey) and a less-dominant qualitative (i.e. interview) component to develop measurement scales and test hypotheses.

Statistical and qualitative findings generally support the framework proposed in Chapter 3. According to Figure 5.2, the medicine price is found to be negatively associated with brand image strategy and completely moderates the relationship of the uses of corporate reputation (as a whole) impact on brand image strategy (as a whole). The uses of corporate reputation are also found to be generally positively correlated with brand image strategy. The discussion on these findings and follow-up interviews also points out that there are limitations but potential for future research.

In this chapter, research contributions in two aspects (theoretical and managerial) will be presented. Limitations and future research directions will also be discussed in more detail. This chapter will start by discussing the theoretical and managerial implications of this research. The limitations of the study will then be reviewed. Finally, future research directions on two different levels, theoretical and methodological, will be presented.

## **7.2 Research Contributions**

### **7.2.1 Theoretical Implications**

This research contributes to existing literature on reputation and other fields in at least six ways. First, most studies in corporate reputation literature have concentrated on the general concept of corporate reputation theoretically rather than relating it to actual practice. This study contributes to existing knowledge by linking the theoretical corporate reputation theory with a firm's strategic usage of it in practice. There is a lack of literature investigating the relationship between corporate reputation and branding issues. Although a few studies addressing the uses of corporate reputation have already been conducted (e.g. Okano et al., 1999; Bickerton, 2000; Michell et al., 2001; Davies and Chun, 2002), they have been done without empirical evidence explicating the relationships between these constructs.

Second, most studies in strategy and marketing have ignored the corporate literature on the uses of corporate reputation that can cause an impact on the corporate and brand strategy. This study contributes to existing knowledge by theoretically building the constructs with regard to how corporate reputation is practically used in three dimensions from six different perspectives. Six different perspectives on uses of corporate reputation were collected and then categorized into three dimensions which serve as the original concepts in strategic uses of corporate reputation. The concepts were then linked to brand image strategies based on three main theories (value-based theory, resource-based theory and integrated marketing communication theory). The theories are borrowed to explain how to use corporate reputation to build brand image strategy. In particular, the relative impacts of three uses of corporate reputation (i.e. value creation, strategic resources and corporate communication) on brand image strategy (i.e. brand segmentation, brand differentiation and brand positioning) are evaluated.

Statistical results show that some hypotheses are accepted, some are partially accepted, and a few are rejected. Overall uses of corporate reputation are found to be significant when correlated with brand image strategy. The relative explanatory powers of different uses of these three constructs (value creation, strategic resources and corporate communication) are found to be asymmetrical. These findings of this research indicate

that six perspectives of concepts can be used effectively to explain the variation in the uses of corporate reputation and its consequences.

Third, this research advances current understanding about a generative process by which brand image strategy is formed and applied, with statistical evidence followed by the theory building. The current literature (e.g. Okano et al., 1999; Michell et al., 2001; Davies and Chun, 2002) has only conceptualized the direct impacts for each construct of the uses of corporate reputation on each brand image strategy but none has empirically examined these relationships.

Fourth, no previous study has empirically examined the moderating effects involved in creating brand image strategy in the pharmaceutical practice. For example, this study finds that medicine price negatively moderates the impact of the overall uses of corporate reputation on overall brand image strategy.

Fifth, it provides partial evidence to a long-standing debate about how to construct the uses of corporate reputation. Some past studies suggest the link of corporate communication as one of several dimensions in the uses of corporate reputation. A firm's corporate reputation can be used for corporate communication as it creates knowledge transfer, such as the communication of the sales staff to the customer, basic medical knowledge education, research outcomes updated, product information or effects revealed, and the newest research reported and delivered.

In terms of methodology, the major contribution of this study is twofold. First, this research is one of the few that tests reputation-and-branding-building models outside of the USA and Europe. Reputation researchers (e.g. Nguyen and Leblanc, 2001; Gardberg and Fombrun, 2002; Roberts and Dowling, 2002) have highlighted a global trend in reputation management and raised their concerns about the necessity for cross-cultural research. Other researchers in general have also been aware of the applicability of their theories across nations and have encouraged new studies to establish their external validity (e.g. Sekaran, 1981; Boyacigiller and Adler, 1991; Peng et al., 1991). The research to some extent responds to those calls for global investigations by testing a reputation-building model in Taiwan, a country in Southeast Asia. Examining the model there could render additional insights into extant literature because Taiwanese

consumers and their cultural backgrounds are substantially different from those of western countries (Hsieh and Scammon, 1993; Hsieh and Tsai, 2009).

The findings of the study suggest that the uses of corporate reputation are recognized as an important concept in western countries (according to literature, see Chapter 2) as well as to Taiwanese companies. Taiwanese show a similar understanding about the overall concept to those reported in literature but place more weight on different domains. In addition, the model explains well the dimensions and the consequences of the uses of corporate reputation, indicating that these concepts may be effectively used in other management research in other countries as well.

Second, this study verifies, adapts and purifies existing measurement instruments in a country which is culturally different from the setting in which these items were first developed. For instance, the value creation scale was purified and tested in an attempt to fill a gap suggested by recent research (e.g. Sweeney and Soutar, 2001; Ulaga Eggert, 2003). Similar processes were also completed for other constructs.

According to the findings, all scales generally appear valid in their original content but the number of dimensions in purified scales is not the same as those of the original scales. For instance, some of the measurement items were dropped because of the Cronbach's  $\alpha$  (reliability) scale did not reach 0.7, whereas its original scale comprises more items (see Chapters 4 and 5). Future cross-national research could benefit from future investigations about essential conditions in which the comparability of scales across countries is affected.

Finally, this study also advances existing knowledge in marketing and strategic management. From the marketing viewpoint, the study contributes to the literature in the corporate reputation construct and another construct for practitioners called the uses of corporate reputation (how do firms use their corporate reputation to ...). For instance, it confirms the findings that a well-reputed firm can create a distinctive position for the company in the mind of stakeholders (Fombrun and Shanley, 1990; Gregory, 1991; Marconi, 1991; Day, 1994; Fortune, 1995; Fombrun and van Riel, 2004) and enables customers to gauge the merits of a product or service, especially when customers are faced by vague corporate or product information (Fombrun and Shanley, 1990). Moreover, it adds evidence about the impact of advertising on levels of customer



attitudes and customer loyalty (Hartwick, 1990; Yoon et al, 1993; Saxton, 1998; Campbell, 1999; Nguyen and Leblanc, 2001). In particular, it informs the marketing literature about the mechanism through which a well-known firm's reputation gives confidence to its customers about its products and service quality.

From a strategic management perspective, this research shows that the concept of the uses of corporate reputation can complement the resource-based view (RBV) in explaining how corporate reputation qualifies as a source of intangible assets and competitive advantage. To resource-based theorists, corporate reputation is a valuable asset because it is considered rare, non-substitutable and not easy to imitate (Barney, 1986, 2001; Dierickx and Cool, 1986). However, RBV focuses more on the characteristics of resource and market to explain firms' competitive advantage and pays less attention to using these advantages to enhance the level of branding strategy by implementing an intangible asset to become a strategic resource. Strategy researchers have scarcely incorporated social and economic factors into their studies about strategic resource accumulation. This research helps bridge such a gap by adding another example about how an intangible resource can be acquired within a pharmaceutical setting.

### **7.2.2 Managerial Implications**

Current reputation management models have mostly been formulated from economic or strategic angles. Often, corporations build their reputation without fully using it. They do not link it very well into developing some strategy from it or applying it to practical use. Reputation issues are usually been fully aware of and strategies will be applied when a firm has to confront reputation damage. Firms are likely to passively manage their reputation rather than actively control it and make a full use of it.

This study offers practical guidelines for managers in actively managing the reputation of their companies and makes a full use of it from six different perspectives. Three dimensions of synthesised constructs of the uses of corporate reputation are recommended to be adopted into practical management by their company. For example, the findings from this research suggest that firms can develop the firm's brand segmentation strategy by incorporating value creation and the corporate communication ability of the firm. Companies that can maintain their operations and apply their brand

image strategies effectively may be able to regenerate their reputation signal to their customers.

For example, given a specific industry, companies may design a set of strategies that might be led by a certain level of use of each corporate reputation dimension. These image strategies aim to influence the targeted consumer's mind. They could also take a more proactive measure by incorporating their customers into the strategy-making structures (i.e. let their customer take part in shaping their strategy) (Hart, 1990). In short, this is similar to the concepts about customer focus in management research.

### **7.3 Limitations and future research**

As with all research projects, this study has several limitations. The following section elaborates the limitations posed by the research setting, research design and measurement issues.

#### **7.3.1 Limitations of the study**

The researcher attempted to expand the understanding of the construct of the uses of corporate reputation and its consequences for strategy planning. Although the endeavour was worthwhile, it was not without its limitations.

Like other studies in marketing and strategy, this research contains some limitations. First, for the methodological weaknesses of this study, this study is cross-sectional representing static relationships between variables in the framework. By the nature of cross-sectional study, the researcher is only allowed to capture the linkage of variables over a short span of time (Bordens and Abbott, 2008).

A further limitation is regarding the normality of data and construct reliability. Even the examination of a model analysed by SEM provides strong support for the acceptable structure path and measurement weights, but the psychometric properties of measurement items were weak in some points. Therefore, some of the measurement items were removed during the item purification process. The deletion of these items was due to the fact that the items cannot perfectly measure the construct domain. Hence,

removing some of the items from the original dimensions limits the generalizability of the original constructs.

There is also a limitation regarding the issue of the external validity. This study was conducted in a single setting, which provided the researcher with a better control over market and environmental anomalies (Conant et al., 1990) and industry effects (Rao, 1994) but does limit the generalizability of findings. The small and medium enterprise (SME) setting also enabled the researcher to clearly detect the effects of corporate factors. However, although the SME in a pharmaceutical context provides many opportunities for corporate issues–manager relations that raise strategy issues for firm managers (Napier and Smith, 1987; Baysinger and Hoskisson, 1990), the focus of this research on the pharmaceutical industry would certainly limit the generalizability of the findings to industries other than pharmaceutical industry. In addition, the study focuses on only one industry in Taiwan which would be significantly different compared to other studies which compare more than two industries in Taiwan – this factor may have influenced the survey results. Furthermore, the findings may be limited to the Taiwanese context and may not necessarily reflect managers’ brand image strategies in other countries. Therefore, there is a need to replicate and extend this study to other contexts.

Moreover, this study has used small-number sample size analysis because the entire number of targeted respondents is around 200 people. Also because of the researcher’s limited time and resources, firm managers rather than customers of the pharmaceutical companies were selected as the targeted respondents. This study only reveals the perception of the branding strategy at manager level and cannot be generalized for individual customer perception. Also, this study used a non-probability sampling method to select the respondents that limits understanding the benefit of the probability sampling such as: (1) “the resulting sample is likely to provide a representative cross-section of the whole” (Denscombe, 2002, p. 12) and (2) “the accuracy and validity of the finding from the survey by referencing to the degree of error and/or bias which may be present in it as measured by well understood statistical methods” (Baker, 2002, p. 106).

Finally, this research may also possess a respondent bias towards managers who have their own opinions about their own company. However, the selected group of respondents was desirable for this study due to two reasons. First, it was the group that

could estimate the uses of corporate reputation and brand image strategy of pharmaceutical companies more accurately than others could due to their direct experience of management and strategy planning. Second, it was one of the most accessible groups of respondents, which helped facilitate the survey procedure.

The findings of this research may also suffer from common method bias, which is possible when perceptual data for independent (e.g. the uses of corporate reputation constructs) and dependent variables (e.g. the brand image strategy constructs) are collected from the same source (managers). However, it is hard to avoid one party (as managers) from being have biased. Additionally, the researcher further investigated this potential problem by following Podsakoff and Organ's (1986) approach. Harmon's one-factor test was performed in a confirmatory manner (e.g. Morgan et al., 2004; Vorhies and Morgan, 2005). If the problem exists, CFA should yield a well-fitted one-factor model which contains all observed variables.

### **7.3.2 Directions for Future Research**

Having identified the limitations of the study, this section then provides some suggestions for future research to extend the current body of knowledge in the literature on corporate reputation, corporate strategy and brand strategy.

Four directions for future research can be identified. First, this study focuses on the uses of corporate reputation which a company has used for creating brand image strategies. In a context of imperfect information, according to some scholars (Weigelt and Camerer, 1988; Wartick, 1992; Herbig and Milewicz, 1993) customers tend to use corporate reputation to deduce the quality of a particular product or service offered by a company or to try to forecast its future action. Based on this logic, a firm manager can use its corporate reputation to deploy a strategy that has some level of influence on the customer's perception.

This research has been applied to examine the Taiwanese pharmaceutical industry. However, this whole process of theoretical building can be applied to other contexts of study such as another industry or another country, for digging indepth regarding the branding strategy issue in different contexts. Future research can be structured in a similar way to the theoretical building of this research. It is suggested to go through

another qualitative interview process to purify the proposed measurement scales. Some different measurement items would be removed during the item purification process when examining under a different context. This process is necessary for the researcher to perfectly measure the construct domain in a specific context.

This study applied to one industry in one country in far eastern Asia; it would be significantly different for other studies which compare more than two industries in Taiwan or compare the same (pharmaceutical) industry in more than two countries. Future research as a comparative study, possibly with more than two different industries or countries is recommended in order to understand this theoretical structure more thoroughly. Thus, there is a need to replicate and extend this study to other contexts either in other industries or countries.

Extensive studies about the relative influences of different dimensions of the uses of corporate reputation on image strategy should also be conducted, which can partly help answer the question about whether a firm's reputation can have an impact on its brand image (Bickerton, 2000). Practically, it should also help managers to effectively select reputation-building activities, consequently allocate their budgets and build a brand image strategy based on a firm's intangible asset.

Another future direction of this research would be to develop a measurement to measure the relationship between this current study and financial performance. The reputation-performance literature from many areas of study is huge and has been researched for a long period of time, showing both positive and negative links between the two. From a review of the literature, for example, marketing scholars (Fombrun, 1996; Caruana, 1997; Srivastava et al., 1997) assert that a good corporate reputation generates good returns and affects corporate performance. Accounting scholars affirmed that a firm's corporate reputation enables it to profit from a variety of benefits (Herremans et al., 1993). At the same time economic scholars (Sabate and Puente, 2003; Sobol and Farrell, 1988) and management scholars (Deephouse, 1997; Brown, 1997; Roberts and Dowling, 1997) indicate that a good corporate reputation is used by firms to enhance corporate performance and financial performance (Roberts and Dowling, 2002; Kotha et al., 2001; McGuire et al., 1990). Therefore, a link of this current study and financial performance is suggested for examination in future research.

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## Appendix 1a – Taiwan and Its Pharmaceutical Industry

### A1.1 Taiwan at a glance

Geography	Maximum Length	394 km
	Maximum Width	144 km
	Land Area	36,190 sq.km.
Population	23.02 Million*	
	(2.59 Million in Taipei, the Capital city)	
	* Based on July 2010 estimation of US Bureau of the Census based on statistics from population censuses	
Religion	Buddhist and Taoist	93%
	Christian	4.5%
	Others	2.5%
Currency	TWD (Approximately 30TWD/US\$ or 48TWD/£)	
Language	Mandarin Chinese	
Government	Presidential system	
	President of Taiwan: Ma, Ying-jeou	
Economic Indicators	2009 GDP	US\$ 379.03 Billion
	2009 Export	US\$ 203.67 Billion
	2009 Import	174.36 Billion
	2009 Interest Rate (Prime Rate)	
	International Reserve	US\$ 380.51 Billion

(Source: German Trade Office Taipei; <http://www.taiwan.ahk.de/taiwan/taiwan-at-a-glance/>)

Appendix 1. Table 1b: Benefits and limitations of alternative approaches for measuring business performance

Category	Label	Description	Benefits	Limitations	Key methodological considerations when using this approach	Illustrative studies reference
<b>“Within-Cell” Approaches Performance Measurement (Refer Figure 2)</b>	1	Financial data from secondary sources	(a) Provides data on financial aspects, which may not be otherwise available; (b) Can be used especially in a single/dominant business type sample, and in “within-industry” studies. (c) Possibility of employing stock market indicators of performance.	(a) Differences in accounting policies may limit its use for comparison purposes (unless stock-market indicators are adopted). (b) Cannot be meaningfully used at strategic business unit level due to “aggregation” problems.	(a) Examine the feasibility of using stock-market indicators as well as the measure of return on value added (ROVA) in view of its “invariance” across industrial contexts, as noted by Hofer (1983) (b) Use industry-relative performance when multiple industries are included in the sample (c) Access differences in accounting policies when feasible.	Rumelt (1974)  Montgomery & Singh (1984)  Bettis and Hall (1982)
	2	Financial data from primary sources	(a) Provides self-reported financial data with fewer problems of external interpretation and aggregation of data; (b) Can be used at both corporate and strategic business unit level of analysis.	(a) Data is likely to be biased; (b) Complete data may not be available due to confidentiality reasons.	(a) Choose target respondents based on specific criteria (position, function, etc.). (b) Use multiple respondents to examine the extent of systematic bias as well as minimize measurement error.	Dess and Robinson (1984)  (PIMS-based studies’ use of ROI measure)
	3	Operational data from secondary sources	(a) Provides performance data when financial data either may not be available or may be inappropriate.	(a) Problems of data availability on various indicators to develop the requisite measures; (b) Some operational data may be industry-specific and may not lend itself to multi-industry studies; (c) Relationship to financial performance not known.	(a) Use industry as the reference point for developing measures; (b) Attempt to define concepts such as market-share, efficiency, etc., as consistently as possible across industries.	-market-share data in Schendel and Patton (1978)

“Across-Cell”  
Approaches to Performance Measurement  
(continued)

4	Operational data from primary sources	(a) Provides some basis to include considerations of performance in the research design; (b) Less likely to be influenced by reasons of confidentiality, sensitivity, etc.	(c) Data is likely to be biased; (d) Relationship to financial performance not known.	(a) Choose target respondents based on specific criteria (position, function, etc.) (b) Use multiple respondents to examine the extent of systematic bias as well as to minimize measurement error.	-market-share data in PIMS-based studies
A	Financial data from both primary and secondary sources	(a) Provides scope for assessing convergent validity to enhance the “quality” of measurement.	(a) Compatible data from two different data sources may not be readily available; (b) Cannot be meaningfully done when research studies are designed at the strategic business unit level due to problems of obtaining secondary data; (c) Operational aspects of performance are not covered.	(a) Check for definitional consistency; (b) Identify reasons for non-convergence, if observed and reconceptualize the concept if necessary; (c) Examine substitutability/interchangability of one measure for the other; (d) Use industry referent measures in multi-industry studies; (e) Evaluate the feasibility of using stock-market measures or ROVA.	Venkatraman and Ramanujam (1985)
B	Business performance viewed in terms of both financial and operational indicators, with data from secondary sources.	(a) Provides a more comprehensive operationalization of business; (b) Enables one to examine the relationship between financial and operational aspects of performance.	(c) Inability to validate operationalizations across different data sources; (d) Cannot be meaningfully used at a strategic business unit level of analysis.	(a) Define financial and operational indicators in industry-relative terms; (b) Assess differences in accounting policies; (c) Address the dimensionality issue both theoretically and empirically.	Schendel and Patton (1978)

	C	Operational data from both primary and secondary sources	(a) Provides scope for assessing convergent validity of operationalization using two different methods.	(b) Data availability may prove to be a key limitation; (c) Financial aspects of performance are not considered, and the relationships between financial and operational indicators are not known.	(a) Check for definitional consistency; (b) Identify reasons for nonconvergence, if observed; (c) Examine substitutability/interchangeability of operationalizations.	
	D	Business performance viewed in terms of both financial and operational indicators, with data from primary sources	(a) Provides a more comprehensive operationalization of business performance; (b) Enables one to examine the relationship between financial and operational aspect of performance; (c) Can also be adopted at the strategic business unit level.	(a) Inability to validate operationalizations across different data sources.	(a) Choose target respondents based on specific criteria; (b) Define indicators in industry-relative terms; (c) Address the dimensionality issue both theoretically and empirically; (d) Use multiple respondents to examine systematic bias due to position, level, etc., as well as minimize measurement error.	Burgeois (1980) Gupta and Govindarajan (1984) Woo and Willard (1983)
“Across-Cell” Approaches to Performance Measurement (continued)	E	Financial data from secondary sources and operational data from primary sources	(a) Provides a scheme to enlarge the conceptualization of business performance, when financial data may not be forthcoming due to reasons of confidentiality.	(a) Limited use at a strategic business unit level of analysis.	(a) Limited use at a strategic business unit level of analysis.	
	F	Operational data from secondary sources and financial data from primary sources	Unlikely option since if financial data are available through primary sources, it is equally likely that operational data also may be available from the same sources.			

a Although in an isolated study (Venkatraman and Ramanujam, 1985), positive and statistically significant association between perceptual (primary) and secondary data on three performance indices were observed, the possibility of bias cannot be completely ruled out, and should be specifically tested in each study.

b All the PIMS-based strategy studies are not separately listed. For a review see Ramanujam and Venkatraman (1984).

Source: Adapted from Venkatraman and Ramanujam (1986)

## **Appendix 1. List of Journals in the Literature Search**

Following is the list of journals included in the literature search as part of the measurement scale development process:

- (1) Academy of Management Journal
- (2) Academy of Management Review
- (3) Corporate Reputation Review
- (4) European Journal of Marketing
- (5) European Management Journal
- (6) Harvard Business Review
- (7) Journal of the Academy of Marketing Science
- (8) Journal of Advertising
- (9) Journal of Business and Industrial Marketing
- (10) Journal of Business Ethics
- (11) Journal of Business Research
- (12) Journal of Consumer Research
- (13) Journal of General Management
- (14) Journal of International Business Studies
- (15) Journal of Management
- (16) Journal of Management Studies
- (17) Journal of Marketing
- (18) Journal of Marketing Management
- (19) Journal of Marketing Research
- (20) Journal of Public Relations Research
- (21) Management Science
- (22) Strategic Management Journal
- (23) The Marketing Review



**Appendix 2. Face-to-face semi-structured interview participant consent form**

**Application of the uses of corporate reputation on brand image strategy**

**Marketing Department  
Brunel Business School PhD Study  
Brunel University**

This interview is being conducted on behalf of the Brunel Business School led by Brunel University. Please read the separate information sheet for a description of the aim and purpose of this research.

This study aims to determine the three uses of corporate reputation dimensions and its application on the establishment of an image strategy. This semi-structured interview allows a fairly open conversational framework. A number of questions were designed ahead of time to guide the conversation. However, during the interview, both the interviewer and the interviewee have the flexibility to steer the conversation to achieve the purpose of this study. It is open to discuss about various details in order to present the main ideas that may not be discussed by using a formal, closed question set. You have been chosen randomly from company managers in the Taiwanese pharmaceutical industry to participate in the study.

An audio recording may be required by the researcher to aid subsequent data analysis. If so, you will be informed at the beginning of the interview. All records of the interview, including the notes, audio file and transcripts (if produced), will be kept secure and at all times personal data will be treated in ways that are consistent with the data protection principles set out in the UK Data Protection Act 1998.

The interview will take approximately one hour to complete. You may withdraw from the interview at any time and any data already recorded will be discarded if you choose. If you have any questions or comments regarding this interview, please contact:

**Chen Chu Chen**  
Brunel Business School, Brunel University  
01895 266386  
[Chen.chu.chen@brunel.ac.uk](mailto:Chen.chu.chen@brunel.ac.uk)

- I agree to take part in this interview.
- I confirm that I have read the associated information sheet and understand the intent and purpose of this research.
- I agree that data captured by this interview can be shared amongst the academia which engage and support projects to conduct further analysis\*, and
- I agree that anonymised extracts from the interview transcript may be used in documents intended for public dissemination.\*

Name: \_\_\_\_\_  
Email: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

\* Ticking these agreement statements is optional.

**Title:** \_\_\_\_\_

**Interviewer:** \_\_\_\_\_

- Position: \_\_\_\_\_
- Personal responsibilities: General manager Marketing manager Sales Manager Public relations manager
- How long have you been with the company? \_\_\_\_\_ years and \_\_\_\_\_ months
- How many staff are there in your company? \_\_\_\_\_

**Name of company:** \_\_\_\_\_

**Date:** \_\_\_\_\_

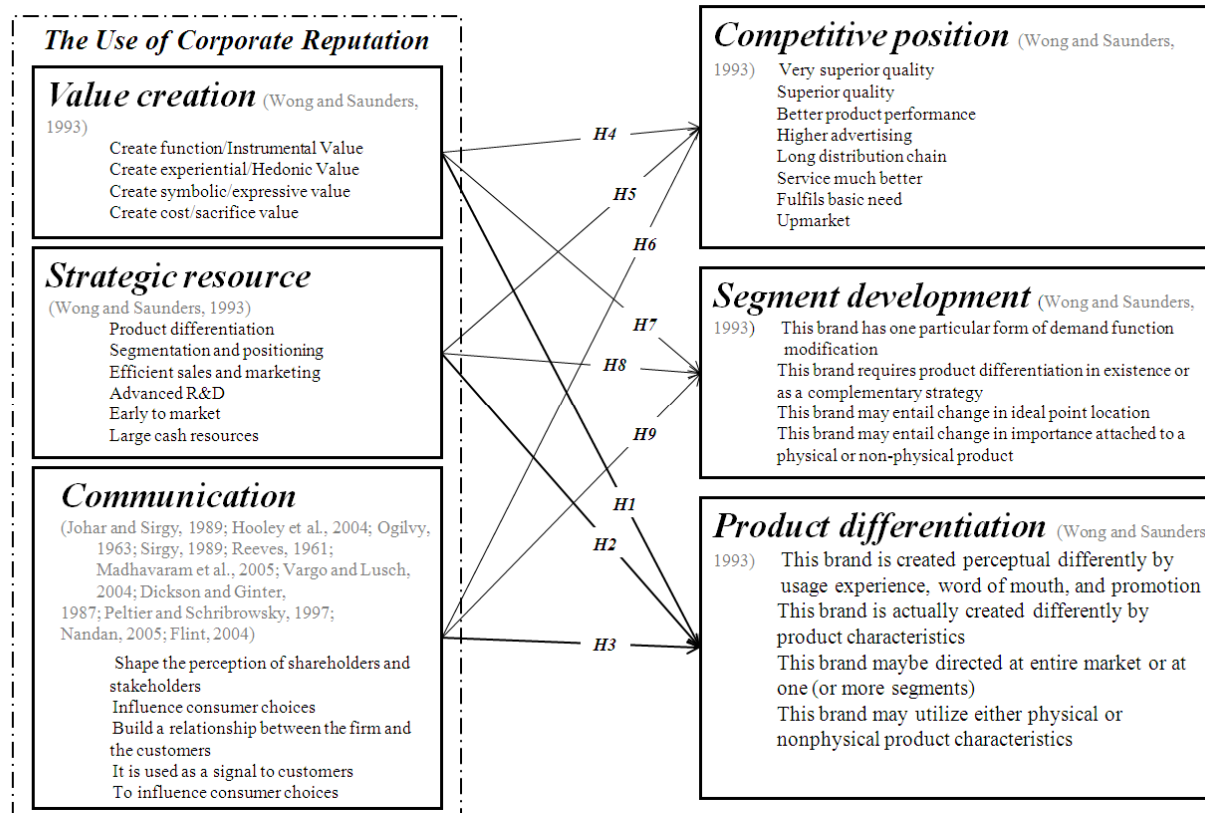
**Introduction:** My name is Chen-Chu Chen and I am currently a Doctoral student at Brunel Business School, Brunel University, Uxbridge, UK.

The research title of this study is: The use of corporate reputation in the development of brand image strategy and its effects on brand market shares in the Taiwanese pharmaceutical industry. The aim of this study is to investigate the uses of corporate reputation. It explores the factors of the uses of corporate reputation that influence a manager's strategy decisions and whether the uses of a firm's corporate reputation can be applied to making a firm's brand image strategy. This research examines the main effectiveness of a firm's reputation as a device for developing a firm's brand image strategy by managers. The brand image strategy is based on competitive positioning, product differentiation and segment development.

The purpose of this study is to build a firm's brand image in order to provide managers with guidelines on the uses of a firm's reputation to implement their brand image strategy effectively. Therefore, it studies the three main dimensions of the uses of corporate reputation that influence brand image strategy setting at a corporate level.

Qualitative interview questions – part 1. Research conceptual framework and content of the interview questions

Research conceptual framework (with items for each construct)



Resource: Developed by the author

## Research questions, hypotheses and qualitative questions (English version)

**RQ:** How do (Taiwanese pharmaceutical) companies use their corporate reputation to develop brand image strategy?

### \*RQ: Key research question

**SRQ1.** Can a firm's corporate reputation have an impact on its product's market segment development?

**Do you think a firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand image strategy in terms of a product's segment development?**

Can you suggest the characteristics of value creation which tend to encourage the setting of a product's segment development? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create a product's segment development. What value creation characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest in more? And why do you think so?

The items for value creation are suggested as follows (please see **List 1**)

The items for segment development are suggested as follows (please see **List 4**)

**Do you think a firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand image strategy in terms of a product's segment development?**

Can you suggest the characteristics of strategic resources which tend to encourage the setting of brand segmentation and positioning strategy? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create brand segmentation and positioning strategy. What strategic resource characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest in more? And why do you think so?

The items for strategic resource are suggested as follows (please see **List 2**).

**Do you think a firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand image setting in terms of a product's market segment development?**

Can you suggest the characteristics of corporate communication which tend to encourage the setting of brand segmentation and positioning strategy? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create brand segmentation and positioning strategy. What communication characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest in more? And why do you think so?

The items for corporate communication are suggested as follows (please see **List 3**).

**SRQ2.** Can a firm's corporate reputation have an impact on its product differentiation?

**Do you think a firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand image strategy in terms of its product differentiation?**

Can you suggest the characteristics of value creation which tend to encourage the setting of its product differentiation? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create your product differentiation. What value creation characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest in more? And why do you think so?

The items for value creation are suggested as follows (please see **List 1**).

The items for product differentiation are suggested as follows (please see **List 5**).

**Do you think a firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand image strategy in terms of its product differentiation?**

Can you suggest the characteristics of strategic resources which tend to encourage the setting of your product differentiation? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create your product differentiation. What strategic resource characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest more? And why do you think so?

The items for strategic resource are suggested as follows (please see **List 2**).

**Do you think a firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand image setting in terms of its product differentiation?**

Can you suggest the characteristics of corporate communication which tend to encourage the setting of your product differentiation? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create your product differentiation, what communication characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest more? And why do you suggest this?

The items for corporate communication are suggested as follows (please see **List 3**).

**SRQ3.** Can a firm's corporate reputation have an impact on a brand's competitive position?

**Do you think a firm's corporate reputation, which is used to create value, has a positive impact on a firm's brand image strategy in terms of the brand's competitive position?**

Can you suggest the characteristics of value creation which tend to encourage the setting of your brand positioning strategy? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create your brand's positioning strategy. What value creation characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest more? And why do you think so?

The items for value creation are suggested as follows (please see **List 1**).

The items for product differentiation are suggested as follows (please see **List 6**).

**Do you think a firm's corporate reputation, which is used as a strategic resource, has a positive impact on a firm's brand image strategy in terms of a brand's competitive position?**

Can you suggest the characteristics of strategic resources which tend to encourage the setting of your brand positioning strategy? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create your brand positioning strategy. What strategic resource characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest more? And why do you think so?

The items for strategic resource are suggested as follows (please see **List 2**).

**Do you think a firm's corporate reputation, which is used to communicate with its stakeholders, has a positive impact on a firm's brand image setting in terms of its product differentiation?**

Can you suggest the characteristics of corporate communication which tend to encourage the setting of your brand positioning strategy? And why do you suggest this?

As a brand manager, you are responsible for controlling the quality of a brand in the firm to create your brand positioning strategy, what communication characteristics (of the uses of corporate reputation) would you pay more attention to or would like to invest more? And why do you suggest this?

The items for corporate communication are suggested as follows (please see **List 3**).

Source: Developed by the author

## Qualitative interview questions – part 2. Items of each construct

### List 1. Items for the uses of corporate reputation – value creation (Wong and Saunders, 1993)

#### Function/Instrumental Value

- Compete by creating useful products.
- Compete by creating correct/accurate attributes
- Compete by appropriate performances.
- Compete by appropriate outcomes.
- Value-chain activity/resource allocation consistent with functional value creation.

#### Experiential/Hedonic Value

- Compete by creating sensory value or appealing to the senses.
- Compete by creating appropriate emotions (fun, pleasure, excitement, relaxation, etc.)
- Compete by facilitating social relationships (bonds, attachments, togetherness)
- Compete by creating epistemic value (knowledge, novelty, fantasy).
- Compete by creating epistemic value (knowledge, novelty, fantasy).
- Value-chain activity/resource allocation consistent with experiential value creation.

#### Symbolic/Expressive Value

- Compete by enhancing self-identity, self-concept, self-worth.
- Compete by creating personal meaning.
- Compete by facilitating self-expression.

#### Cost/Sacrifice Value

- Compete by offering economic value (low prices, value in use, life costs).
- Compete by minimizing psychological investment of customers (ease of use, ease of doing business, simplicity, availability, accessibility).
- Compete by minimizing personal investment of customers (time, effort, energy).
- Compete by minimizing customer risk (personal, technological, strategic).
- Value-chain activity/resource allocation consistent with symbolic value creation.

### List 2. Items for the uses of corporate reputation – strategic resource (Wong and Saunders, 1993)

- Product differentiation
- Segmentation and positioning
- Efficient sales and marketing
- Advanced R&D
- Early to market

- Large cash resources

**List 3.** Items for the uses of corporate reputation – corporate communication (Johar and Sirgy, 1989; Hooley et al., 2004; Ogilvy, 1963; Sirgy, 1989; Reeves, 1961; Madhavaram et al., 2005; Vargo and Lusch, 2004; Dickson and Ginter, 1987; Peltier and Schribrowsky, 1997; Nandan, 2005; Flint, 2004)

- Shape the perception of shareholders and stakeholders
- Influence consumer choices
- Build a relationship between the firm and the customers
- It is used as a signal to customers
- To influence consumer choices

**List 4.** Items for brand image strategy – segment development (Dickson and Ginter, 1987)

- This brand has one particular form of demand function modification
- This brand requires product differentiation in existence or as a complementary strategy
- This brand may entail change in ideal point location
- This brand may entail change in importance attached to a physical or nonphysical product

**List 5.** Items for brand image strategy – product differentiation (Dickson and Ginter, 1987)

- This brand is created perceptual differently by usage experience, word of mouth, and promotion
- This brand is actually created differently by product characteristics
- This brand maybe directed at entire market or at one (or more segments)
- This brand may utilize either physical or non-physical product characteristics

**List 6.** Items for brand image strategy – competitive position (Wong and Saunders, 1993)

- Very superior quality
- Superior quality
- Better product performance
- Higher advertising
- Long distribution chain
- Service much better
- Fulfils basic need
- Upmarket

Source: Adapted from previous literature as stated



**Appendix 3 Questionnaire** (First version, developed directly from literature)

**The uses of corporate reputation scale**

For each of the following statements, please indicate the response that most closely describes your organization.

Strongly disagree 1	Moderately disagree 2	Neither agree nor disagree 3	Moderately agree 4	Strongly agree 5
------------------------	--------------------------	------------------------------	-----------------------	---------------------

**Value creation**

- |           |                                                                                                                                                           |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| _____ 01. | Our firm's corporate reputation promises good quality products and service to customers.                                                                  |
| _____ 02. | The corporate reputation of our firm helps to reduce transaction costs.                                                                                   |
| _____ 03. | Our firm competes by creating useful products.                                                                                                            |
| _____ 04. | Our firm competes by creating the correct product attributes for its targeted customers.                                                                  |
| _____ 05. | Our firm competes by appropriate performances.                                                                                                            |
| _____ 06. | Our firm competes by appropriate outcomes.                                                                                                                |
| _____ 07. | Our firm's value-chain activity is consistent with functional value creation.                                                                             |
| _____ 08. | Our firm's resource allocation is consistent with functional value creation.                                                                              |
| _____ 09. | Our firm competes by appealing to the senses.                                                                                                             |
| _____ 10. | Our firm competes by creating appropriate emotions (fun, pleasure, excitement, relaxation, etc.)                                                          |
| _____ 11. | Our firm competes by facilitating social relationships (bonds, attachments, and togetherness).                                                            |
| _____ 12. | Our firm competes by creating epistemic value (knowledge, novelty, fantasy).                                                                              |
| _____ 13. | Our firm's value-chain activity is consistent with experiential value creation.                                                                           |
| _____ 14. | Our firm's resource allocation is consistent with experiential value creation.                                                                            |
| _____ 15. | Our firm competes by enhancing its customers' self-identity.                                                                                              |
| _____ 16. | Our firm competes by enhancing its customers' self-concept.                                                                                               |
| _____ 17. | Our firm competes by enhancing its customers' self-worth.                                                                                                 |
| _____ 18. | Our firm competes by creating personal meaning.                                                                                                           |
| _____ 19. | Our firm competes by facilitating self-expression.                                                                                                        |
| _____ 20. | Our firm competes by offering economic value (low prices, value in use, life costs).                                                                      |
| _____ 21. | Our firm competes by simplifying the purchasing process for its consumers (ease of use, ease of doing business, simplicity, availability, accessibility). |
| _____ 22. | Our firm compete by enabling ease of use of its products (time, effort, energy).                                                                          |

- \_\_\_\_\_ 23. Our firm competes by minimising customer risk (personal, technological, strategic).
- \_\_\_\_\_ 24. Our firm's value-chain activity is consistent with symbolic value creation.
- \_\_\_\_\_ 25. Our firm's resource allocation is consistent with symbolic value creation.

***Strategic value or resource***

- \_\_\_\_\_ 01. In our organisation, corporate reputation serves as a competitive advantage.
- \_\_\_\_\_ 02. Our firm's corporate reputation sends a strong signal to its customers.
- \_\_\_\_\_ 03. Our firm's corporate reputation implies efficient sales and marketing.
- \_\_\_\_\_ 04. Our firm's corporate reputation implies its advanced R&D.
- \_\_\_\_\_ 05. Our firm's corporate reputation implies that we are able to enter markets early.

***Corporate communication***

- \_\_\_\_\_ 01. Our firm's corporate reputation shapes the perceptions of shareholders and other stakeholders.
  - \_\_\_\_\_ 02. Our firm's corporate reputation builds a relationship between the firm and its customers.
  - \_\_\_\_\_ 03. Our firm's corporate reputation influences consumer choices.
-

## Brand image strategy scale

For each of the following statements, please indicate the response that most closely describes your organisation.

Strongly  
disagree  
1

Moderately  
disagree  
2

Neither agree  
nor disagree 3

Moderately  
agree  
4

Strongly agree  
5

### *Competitive position*

- |          |                                                                                                        |
|----------|--------------------------------------------------------------------------------------------------------|
| _____ 1. | Our firm's corporate brand positioning strategy signifies high quality to its customers.               |
| _____ 2. | Our firm's corporate brand positioning strategy signifies better product performance to its customers. |
| _____ 3. | Our firm's corporate brand positioning strategy is to achieve a higher frequency of advertising.       |
| _____ 4. | Our firm's corporate brand positioning strategy involves a long distribution chain.                    |
| _____ 5. | Our firm's corporate brand positioning strategy is to provide a much better service to its customers.  |
| _____ 6. | Our firm's corporate brand positioning strategy tries to fulfil the basic needs of our customers.      |
| _____ 7. | Our firm's corporate brand positioning strategy tries to target upmarket audiences.                    |

### *Product differentiation*

- |          |                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------|
| _____ 1. | How our corporate brand is perceived varies according to whether consumers have experienced our products. |
| _____ 2. | How our corporate brand is perceived varies by word of mouth.                                             |
| _____ 3. | How our corporate brand is perceived varies by promotion.                                                 |
| _____ 4. | Our corporate brand is actually created differently by product characteristics.                           |
| _____ 5. | Our corporate branding maybe directed at different market segments.                                       |
| _____ 6. | Our corporate brand may utilise physical product characteristics.                                         |
| _____ 7. | Our corporate brand may utilise non-physical product characteristics.                                     |

### *Segment development*

- |          |                                                                                                 |
|----------|-------------------------------------------------------------------------------------------------|
| _____ 1. | Our corporate brand strategy has one particular form of demand function modification.           |
| _____ 2. | Our corporate brand strategy requires product differentiation.                                  |
| _____ 3. | Our corporate brand strategy requires changes in point distribution location.                   |
| _____ 4. | Our corporate brand strategy requires changes in importance attached to a non-physical product. |
| _____ 5. | Our corporate brand strategy requires changes in importance attached to a physical product.     |

**Appendix 4. Questionnaire** (A revised version after qualitative interview):

**Value creation items:**

1. Our firm's corporate reputation promises good quality products and service to customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

2. The corporate reputation of our firm helps to reduce transaction costs.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

3. Our firm competes by creating useful products.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

4. Our firm competes by creating the correct product attributes for its targeted customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

5. Our firm competes by providing good financial performances.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

6. Our firm competes by providing product with appropriate outcomes.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

7. Our firm's value-chain activity is consistent with functional value creation.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

8. Our firm's resource allocation is consistent with functional value creation.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

9. Our firm's products compete by appealing to the senses.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

10. Our firm competes by creating appropriate emotions (e.g. fun, pleasure, excitement, relaxation, etc.)

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

11. Our firm competes by facilitating social relationships (e.g. bonds, attachments and togetherness).

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

12. Our firm competes by creating epistemic value (e.g. knowledge and novelty).
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
13. Our firm's value-chain activity is consistent with experiential value creation (e.g. happiness, affection and excitement...).
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
14. Our firm's resource allocation is consistent with experiential value creation.
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
15. Our firm competes by enhancing its customers' self-identity.
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
16. Our firm competes by enhancing its customers' self-concept (or self-image).
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
17. Our firm competes by enhancing its customers' self-worth.
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
18. Our firm competes by facilitating self-expression.
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
19. Our firm competes by offering economic value (low prices, value in use, life costs).
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
20. Our firm competes by simplifying the purchasing process for its consumers (ease of use, ease of doing business, simplicity, availability of purchasing, accessibility).
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
21. Our firm competes by enabling ease of use of its products (time, effort, energy).
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
22. Our firm competes by minimizing customer risk (personal, technological, strategic).
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
23. Our firm's value-chain activity is consistent with symbolic value creation.
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |
24. Our firm's resource allocation is consistent with symbolic value creation.
- |                 | 1                        | 2                        | 3                        | 4                        | 5                        |              |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| <b>Disagree</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <b>Agree</b> |

**Strategic resources items:**

1. In our organization, corporate reputation serves as a competitive advantage.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

2. Our firm's corporate reputation sends a strong signal to its customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

3. Our firm's corporate reputation implies efficient sales and marketing.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

4. Our firm's corporate reputation implies it has advanced R&D.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

5. Our firm's corporate reputation implies that we are able to enter markets early.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

6. Our firm's corporate reputation gains the firm more opportunity for strategic alliance or business cooperation.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

7. Our firm's corporate reputation is enhancing the prices by validating them in published clinical reports.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

8. Our firm's corporate reputation enables the firm to enter the market easier.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

9. Our firm's corporate reputation gains more customers for the firm.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

10. Our firm's corporate reputation makes the marketing system work more efficiently.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

11. Our firm's corporate reputation makes it easier for us to find a downstream reseller.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

12. Our firm's corporate reputation can enhance our firm's sales force.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

13. Our firm's corporate reputation helps the new product to enter the market.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

14. Our firm's corporate reputation helps the strategic link with complementary products.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

**Corporate communication items:**

1. Our firm's corporate reputation shapes the perceptions of shareholders and other stakeholders.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

2. Our firm's corporate reputation builds a relationship between the firm and its customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

3. Our firm's corporate reputation influences consumer choices.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

4. Our firm's corporate reputation is based on the experience of the sales people.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

5. Our firm's corporate reputation is based on the sales ability of the sales people.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

6. Our firm's corporate reputation is based on the firm's awareness of social responsibility.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

7. Our firm's corporate reputation can be used for all types of negotiations with our customers, competitors or the government.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

8. Our firm's corporate reputation helps internal communication (the communication between our firm and our staffs).

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

9. Our firm's corporate reputation helps external communication (the communication between our firm and our customers).

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

**Brand positioning items:**

1. Our firm's corporate brand positioning strategy signifies high quality to its customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

2. Our firm's corporate brand positioning strategy signifies better product performance for its customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

3. Our firm's corporate brand positioning strategy is to achieve a higher frequency of advertising.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

4. Our firm's corporate brand positioning strategy involves a long distribution chain.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

5. Our firm's corporate brand positioning strategy is to provide a much better service to its customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

6. Our firm's corporate brand positioning strategy tries to fulfil the basic needs of our customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

7. Our firm's corporate brand positioning strategy tries to target upmarket audiences.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

**Brand differentiation items:**

1. Our corporate brand is perceived differently according to whether consumers have experienced our products.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

2. Our corporate brand is perceived differently by word of mouth.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

3. Our corporate brand is perceived differently by promotion.

	1	2	3	4	5	



**Disagree**      **Agree**

4. Our corporate brand is actually created differently by product characteristics.

1 2 3 4 5  
**Disagree**      **Agree**

5. Our corporate branding may be directed at different market segments.

1 2 3 4 5  
**Disagree**      **Agree**

6. Our corporate brand may utilize physical product characteristics.

1 2 3 4 5  
**Disagree**      **Agree**

7. Our corporate brand may utilize non-physical product characteristics.

1 2 3 4 5  
**Disagree**      **Agree**

8. Our firm's corporate brand positioning strategy is based on advanced R&D which leads the needs of the targeted market.

1 2 3 4 5  
**Disagree**      **Agree**

### Brand segmentation items:

1. Our corporate brand strategy has one particular form of demand function modification.

1 2 3 4 5  
**Disagree**      **Agree**

2. Our corporate brand strategy requires product differentiation.

1 2 3 4 5  
**Disagree**      **Agree**

3. Our corporate brand strategy requires changes in point distribution location.

1 2 3 4 5  
**Disagree**      **Agree**

4. Our corporate brand strategy requires changes in importance attached to a nonphysical product.

1 2 3 4 5  
**Disagree**      **Agree**

5. Our corporate brand strategy requires changes in importance attached to a physical product.

1 2 3 4 5  
**Disagree**      **Agree**

6. Our corporate brand strategy is decided by the needs of the customers to decide the product differentiation.

1 2 3 4 5  
**Disagree**      **Agree**

7. Our corporate brand strategy is based on different channels of distribution.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

**Medicine price items:**

1. A medicine with a higher price shows a higher quality of product to its customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

2. A medicine with a higher price shows a better image of the company it belongs to.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

3. A medicine with a higher price usually captures the value that is generated in the product.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

4. Our firm customizes price by value that is perceived by our customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

5. Our firm customizes price by distinguishing customers who pursue high values and customers with strict budgets.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

6. Our firm customizes price by offering coupons, regional prices, limited consumption or negotiatory prices to a specific group of customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

7. Our firm customizes price according to the characteristics of the customers.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

8. Our firms customize price according to the trading characteristics.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

9. Our firm pays considerable attention to effective publicity and communication while operating bulk buying/discounts.

	1	2	3	4	5	
<b>Disagree</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Agree</b>

**Thank you very much for your co-operation**

**Appendix 5. Survey respondents background information**

<b>1. Company History:</b>	<b>2. Turnover (Million Pounds):</b>	<b>3. Service Type (Multiple):</b>	<b>4. Size (People):</b>	<b>5. Department:</b>	<b>6. Position:</b>	<b>7. Years of experience in the company:</b>
11–30 years	Between 1 and 3	A trader company (Trade Asian company products)	0–49	Marketing department	Department manager	More than 25 years
11–30 years	Under 1	Taiwanese local company (Manufacture+Sell)	0–49	Management department	Department manager	Between 6 to 14 years
31–50 years	Under 1	Taiwanese local company (Manufacture+Sell)	0–49	Sales department	Board chairman	More than 25 years
31–50 years	Above 10	Taiwanese local company (Manufacture+Sell)	50–99	Management department	Department manager	Between 15 to 24 years
11–30 years	Under 1	Taiwanese local company (Manufacture+Sell)	0–49	Management department	Department manager	Between 15 to 24 years
11–30 years	Under 1	Taiwanese local company (Manufacture+Sell)	0–49	Sales department	Department manager	Between 15 to 24 years
11–30 years	Under 1	A trader company (Trade Asian company products)	0–49	Management department	General manager	More than 25 years
11–30 years	Under 1	Taiwanese local company (Manufacture+Sell)	0–49	Sales department	Department manager	Between 15 to 24 years
11–30 years	Under 1	Taiwanese local company (Manufacture+Sell)	0–49	Management department	Department manager	Between 6 to 14 years
11–30 years	Between 1 and 3 millions	A trader company (Trade European company products)	50–99	Management department	Board chairman	More than 25 years
		Taiwanese local company (Manufacture+Sell)				
31–50 years	Above 10	A trader company (Trade American company products)	50–99	Management department	Department manager	Between 6 to 14 years
		A trader company (Trade European company products)				
		A trader company (Trade Asian company products)				
11–30 years	Between 1 and 3	A trader company (Trade American company products)	0–49	Management department	Department manager	Between 2 to 5 years

		A trader company (Trade European company products)				
		A trader company (Trade Asian company products)				
11–30 years	Above 10	A trader company (Trade European company products)	over 300	Marketing department	Department manager	Between 2 to 5 years
		A trader company (Trade Asian company products)				
		Taiwanese local company (Manufacture+Sell)				
11–30 years	Under 1	A trader company (Trade Asian company products)	0–49	Management department	General manager	Between 6 to 14 years
Less than 10 years	Under 1	A trader company (Trade Asian company products)	0–49	Sales department	Department manager	Less than 1 year
		Taiwanese local company (Manufacture+Sell)				
Less than 10 years	Between 1 and 3	A trader company (Trade Asian company products)	0–49	Sales department	General manager	Between 6 to 14 years
31–50 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 – 299	Management department	General manager	More than 25 years
31–50 years	Between 3 and 10	A trader company (Trade European company products)	50–99	Sales department	Department manager	Between 15 to 24 years
31–50 years	Above 10	Taiwanese local company (Manufacture+Sell)	100 – 299	Sales department	Department manager	Less than 1 year
31–50 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 – 299	Marketing department	General manager	More than 25 years
11–30 years	Between 1 and 3	A trader company (Trade Asian company products)	0–49	Management department	General manager	Between 15 to 24 years
11–30 years	Between 1 and 3	A trader company (Trade American company products)	50–99	Sales department	Department manager	Between 6 to 14 years
31–50 years	Between 1 and 3	A trader company (Trade American company products)	50–99	Management department	Department manager	Less than 1 year
		Taiwanese local company (Manufacture+Sell)				
11–30 years	Above 10	A trader company (Trade American company products)	0–49	Management department	Department manager	Between 15 to 24 years

		company products)		department	manager	years
31–50 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	over 300	Marketing department	Department manager	Between 15 to 24 years
11–30 years	Between 1 and 3	A trader company (Trade Asian company products)	0–49	Marketing department	Department manager	More than 25 years
		Taiwanese local company (Manufacture+Sell)				
11–30 years	Between 1 and 3	Taiwanese local company (Manufacture+Sell)	50–99	Marketing department	Department manager	Between 6 to 14 years
51–80 years	Above 10	A trader company (Trade American company products)	over 300	Sales department	Department manager	Between 2 to 5 years
		Taiwanese local company (Manufacture+Sell)				
11–30 years	Above 10	A trader company (Trade American company products)	0–49	Sales department	Department manager	Between 6 to 14 years
		A trader company (Trade European company products)				
		A trader company (Trade Asian company products)				
		Taiwanese local company (Manufacture+Sell)				
11–30 years	Between 1 and 3	A trader company (Trade European company products)	50–99	Marketing department	Department manager	Between 2 to 5 years
11–30 years	Between 1 and 3	A trader company (Trade Asian company products)	50–99	Sales department	Department manager	Between 6 to 14 years
11–30 years	Between 1 and 3	A trader company (Trade European company products)	50–99	Management department	Department manager	More than 25 years
		Taiwanese local company (Manufacture+Sell)				
11–30 years	Above 10	A foreign owned company (Asian company) (Manufacture+Sell)	100 – 299	Sales department	Department manager	Between 15 to 24 years
		A trader company (Trade European company products)				
31–50 years	Above 10	A foreign owned company (American company) (Manufacture+Sell)	over 300	Marketing department	Department manager	Between 6 to 14 years

11-30 years	Between 1 and 3	A trader company (Trade American company products)	0-49	Management department	Department manager	Between 6 to 14 years
		A trader company (Trade European company products)				
		A trader company (Trade Asian company products)				
11-30 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 - 299	Management department	Department manager	More than 25 years
51-80 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 - 299	Marketing department	Department manager	Between 6 to 14 years
51-80 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 - 299	Marketing department	Department manager	Between 6 to 14 years
11-30 years	Between 3 and 10	A trader company (Trade Asian company products)	100 - 299	Management department	Department manager	Between 2 to 5 years
		Taiwanese local company (Manufacture+Sell)				
Over 81 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 - 299	Management department	General manager	Between 15 to 24 years
31-50 years	Under 1000	Taiwanese local company (Manufacture+Sell)	0-49	Sales department	Board chairman	More than 25 years
11-30 years	Under 1000	Taiwanese local company (Manufacture+Sell)	0-49	Management department	Department manager	Between 15 to 24 years
11-30 years	Under 1000	A trader company (Trade Asian company products)	0-49	Management department	General manager	More than 25 years
11-30 years	Under 1000	Taiwanese local company (Manufacture+Sell)	0-49	Management department	Department manager	Between 6 to 14 years
31-50 years	Above 10	A trader company (Trade American company products)	50-99	Management department	Department manager	Between 6 to 14 years
		A trader company (Trade European company products)				
		A trader company (Trade Asian company products)				
11-30 years	Above 10	A trader company (Trade European company products)	over 300	Marketing department	Department manager	Between 2 to 5 years
		A trader company (Trade Asian company products)				

		company products)				
		Taiwanese local company (Manufacture+Sell)				
Less than 10 years	Under 1	A trader company (Trade Asian company products)				
		Taiwanese local company (Manufacture+Sell)	0-49	Sales department	Department manager	Less than 1 year
31-50 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 - 299	Management department	General manager	More than 25 years
31-50 years	Between 3 and 10	A trader company (Trade European company products)	50-99	Sales department	Department manager	Between 15 to 24 years
31-50 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 - 299	Marketing department	General manager	More than 25 years
11-30 years	Between 1 and 3 million	A trader company (Trade American company products)	50-99	Sales department	Department manager	Between 6 to 14 years
11-30 years	Above 10	A trader company (Trade American company products)	0-49	Management department	Department manager	Between 15 to 24 years
31-50 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	over 300	Marketing department	Department manager	Between 15 to 24 years
11-30 years	Between 1 and 3	Taiwanese local company (Manufacture+Sell)	50-99	Marketing department	Department manager	Between 6 to 14 years
		A trader company (Trade American company products)				
51-80 years	Above 10	Taiwanese local company (Manufacture+Sell)	over 300	Sales department	Department manager	Between 2 to 5 years
		A trader company (Trade American company products)				
		A trader company (Trade European company products)				
		A trader company (Trade Asian company products)				
11-30 years	Above 10	Taiwanese local company (Manufacture+Sell)	0-49	Sales department	Department manager	Between 6 to 14 years
11-30 years	Between 1 and 3	A trader company (Trade Asian company products)	50-99	Sales department	Department manager	Between 6 to 14 years

11-30 years	Above 10	A foreign owned company (Asian company) (Manufacture+Sell)	100 – 299	Sales department	Department manager	Between 15 to 24 years
		A trader company (Trade European company products)				
11-30 years	Between 1 and 3	A trader company (Trade American company products)	0-49	Management department	Department manager	Between 6 to 14 years
		A trader company (Trade European company products)				
		A trader company (Trade Asian company products)				
51-80 years	Between 3 and 10	Taiwanese local company (Manufacture+Sell)	100 – 299	Marketing department	Department manager	Between 6 to 14 years
11-30 years	Between 3 and 10	A trader company (Trade Asian company products)	100 – 299	Management department	Department manager	Between 2 to 5 years
		Taiwanese local company (Manufacture+Sell)				



Appendix 6. List of overall company profile in Taiwanese pharmaceutical industry

Company	Email Address	Tel. No. (+886=0)	Fax No. (+886=0)	Address area code	Website
Koda Pharmaceutical Co. Ltd.	koda@koda.com.tw	(03)4696105	(03)4691447	324	www.koda.com.tw
Yuan Chou Chemical & Pharmaceutical Co., Ltd.	a2256666@ms71.hinet.net	(049)2253190	(049)2255-330	540	www.yuanchou.com.tw
Fu Tan Pharmaceutical Co.,Ltd.	a481069@yahoo.com.tw	(04)8884138, (04)8884139	(04)888-3608	521	
Chen Ta Pharmaceutical Co.,Ltd.	a7211111@ms24.hinet.net	(06)5721102	(06)572-6535	721	
Nysco Co., Ltd.	accounting@nysco.net	(02)29017321	(02)2908-5268	242	www.nysco.net
Chun Da Co., Ltd.	adm@paolyta.com.tw	(03)5983150	(02)27413511	303	
Aerolead International Ltd.	aled@aerolead.com.tw	(03)4839606	(02)2876-5845	328	
Taiwan Shionogi & Co.,Ltd	alice@shionogi.com.tw	(02)24512466-7	(02)2536-2326	206	
San You Biotech & Pharmaceutical Co., Ltd.	allcare@sun-you.com.tw	(06)6353338	(06)6353656	731	www.sun-you.com.tw
AND Pharmaceutical & Chemical Industry Co Ltd.	and.lin@msa.hinet.net	(04)7621135	(04)763-1369	500	
Kuang Nan Pharmaceutical Co., Ltd.	angus@iloveyou-bio.com	(03)9382954, (03)9383235	(03)9386-916	260	www.iloveyou-bio.com
ARICH Enterprise Co., Ltd.	arich@ms7.hinet.net	(02)25057295	(02)25047665	104	www.arich.com.tw
Astar Chemical & Pharmaceutical Co Ltd.	astarnet@ms25.hinet.net	(03)5591158-9	(03)559-0028	304	
Kuo Chang Pharmaceutical Co., Ltd.	biomist@anet.net.tw	(06)2613165-7	(06)261-6296	702	www.gcnkh.com
Caleb Pharmaceuticals, Inc.	caleb@caleb-pharm.com	(03)579-5858	(03)579-5656	300	www.caleb-pharm.com
China Biological & Chemical Co Ltd.	cbc.pharmal@msa.hinet.net	(02)26235507	(02)8631-0200	251	www.cbcl.com.tw
Chunghwa Chemical Synthesis & Biotech Co., Ltd.	ccsb@ccsb.com.tw	(02)8684-3318	(02)8684-3202	238	www.ccsb.com.tw
Chu Chen Ind. Co., Ltd.	cctmj@kingcar.com.tw	(07)6967156	(02)2368-8128	821	www.kingcar.com.tw
Century Chem. & Pharm.Co.,Ltd.	century.ct115@msa.hinet.net	(02)24967112	(02)2496-8307	224	www.century115.com
Chang An Chemical Industries Co.,Ltd.	chanan66@ms23.hinet.net	(04)7695126	(04)769-5120	506	
Chin Ang Pharmaceutical Co.,Ltd.	changmp@ch-angmp.com.tw	(05)2216025-6	(05)221-8833	621	www.ch-angmp.com.tw
Cheng Fong Chemical Co., Ltd.	cheng.fong@msa.hinet.net	(03)3868383	(02)2966-9575	337	www.cf-chemical.com.tw

Chien Min Pharmaceutical Co., Ltd.	chenmin.chenmin@msa.hinet.net	(04)23500663	(04)2350-5329	407	
Chia Shin Pharmaceutical Co Ltd.	chiashin2@yahoo.com.tw	(05)2354872-3	(05)2358496	600	
Chin Teng Pharmaceutical Industrial Co.,Ltd.	chinteng@ms12.hinet.net	(04)26812468	(04)2681-6878	437	www.chinteng.com.tw
Chiu Jern Chem. & Pharm. Co., Ltd.	chiu.jern@msa.hinet.net	(02)26211111-2	(02)2623-5324	251	
Overseas Chinese Pharmaceutical Co., Ltd.	chwovc@yahoo.com.tw	(02)22866217	(02)22874228	241	
Chung Mei Pharmaceutical Co Ltd.	cmnet001@ms21.hinet.net	(04)7524161	(04)761-3986	500	www.chungmei.com.tw
Sheng Foong Co., Ltd.	company@shengfoong.com.tw	(03)9905900	(02)2769-8785	270	www.shengfoong.com.tw
Chung Tai Sing Chemical Industry Co., Ltd.	cts@crocoil.com.tw	(03)5387135	(03)5387-539	300	www.crocoil.com.tw
The Curie Chem & Pharm Manufacturing Co Ltd.	curie.cr@msa.hinet.net	(02)26214538, (02)26231666, (02)26256365	(02)2623-1249	251	
Shun Hwa Pharmaceutical Co., Ltd.	d3565@ms34.hinet.net	(02)26711597	(02)2307-9171	237	
Daw Jih Pharmacy Works Co Ltd.	dauge@ms2.hinet.net	(08)7070705	(08)707-0606	913	www.dauge.com.tw
Danver Chemical & Pharmaceutical Co Ltd.	dcpclee@seed.net.tw	(03)3869200	(03)386-9202	337	
Delta Synthetic Co., Ltd.	deltayc@ms25.hinet.net	(02)22685604	(02)2268-0895	236	
Factor Pharmaceutical Co.,Ltd.	dfc688@ms23.hinet.net	(07)7038748	(07)7022558	831	
Everest Pharm. Industrial Co., Ltd.	everestm@ms38.hinet.net	(05)2218686	(05)221-3383	621	
Forever Chemical Co., Ltd.	fcco1999@yahoo.com.tw	(03)3862421	(02)8861-3292,2882-9663	337	www.forever-chem.com.tw
Ya Sian Biotech Co., Ltd.	felix@eusol-biotech.com.tw	(02)22994836	(02)22996026	248	
Fisherman Pharmaceutical Co Ltd.	fisher.mar@msa.hinet.net	(07)3417718, (07)3416396	(07)341-8266	813	www.fisher-man.com.tw
Eisai Taiwan Inc.	fmchang@eisai.com.tw	(06)6985180	(02)2531-0063	720	www.eisai.com.tw
Fuh Teng Pharmaceutical Co.,Ltd.	fu.tain@msa.hinet.net	(04)7989696	(04)798-0796	509	
Fung Song Pharm .Biotechnology .Co ., Ltd.	fung.song@msa.hinet.net	(06)6987396	(06)6990039	720	
Fu Yuan Chem. & Pharm. Co., Ltd.	fuyuan17303@seed.net.tw	(02)24972872	(02)2433-2079	224	
Genuine Chemical	gcpc2030@ms37.hinet.net	(03)4524382	(03)462-7749	320	

Pharmaceutical Co., Ltd.					
Gentle Pharmaceutical Co., Ltd.	gen11101@ms36.hinet.net	(05)5911101-2	(05)591-1103	631	
New Bellus Entierprises Co., Ltd.	gkimail@tpts5.seed.net.tw	(03)4572121	(02)2393-7001	320	www.grapeking.com.tw
Hansen Pharmaceutical Co., Ltd.	han.sheng88@msa.hinet.net	(08)7226222, (08)8000381~2	(08)8000383	900	
Hui Chun Tang Pharmaceutical Works Co Ltd.	hctpharm@ms65.hinet.net	(03)4775185	(02)2999-1911	327	www.hctpharm.com.tw
Health Chemical Pharmaceutical Co Ltd.	healthcgm@yaho.com.tw	(04)26811733	(04)26818462	437	
Tainan Peng Lai Enterprise Co. Ltd.	helen106@ms13.hinet.net	(06)2673036	(06)2673-084	701	
Heng An Pharmaceutical Industrial Co.,Ltd.	hengan23593019@yahoo.com.tw	(04)23593019, (04)23593222	(04)2359-0120	407	
Hwa Kuo Pharmacy Co., Ltd.	hk23rd36th@yahoo.com.tw	(04)23592993	(04)2359-3841	408	
Hui Kwang Chemical Co.,Ltd.	hkc@huikwang.com	(06)5702181	(06)5700065	721	www.huikwang.com
Hong Shing Pharmaceutical Co., Ltd.	hong.shingf@msa.hinet.net	(03)4521818	(02)2708-8800	320	www.hongshing.com.tw
Unifarma Co., Ltd.	hongchusis@yahoo.com.tw	(04)7356825	(04)736-1180	500	
Taiwan Dersan Pharmaceutical Co. Ltd	hsien.ju@msa.hinet.net	(05)2209897	(05)220-9685	621	
Syngen Biotech Co., Ltd.	huang.adam@syngen.com.tw	(06)6323588	(06)6361964	730	www.syngen.com.tw
Hwang's Pharmaceutical Co Ltd.	hwangs.ltd@msa.hinet.net	(05)5971197	(02)2771-2573	630	www.hwangs.com.tw
Hsin Wan Jen Chem.&Pharm.Co.,Ltd.	hwj@greenoil.com.tw	(04)25269105	(04)2524-2570	42049	www.greenoil.com.tw
Union Chem & Pharm Co Ltd.	ict.union@msa.hinet.net	(02)22833001-3	(02)2281-7044	247	
Formosa Laboratories Inc.	info@formosalab.com	(03)3240895	(03)324-0923	338	www.formosalab.com
Taiwan Biotech Co Ltd.	info@mail.sintong.com	(03)3612131	(03)367-0029	330	www.sintong.com
Sinphar Pharmaceutical Co., Ltd.	info@sinphar.com	(03)9581101-5	(03)9583040, (02)27699918	269	www.sinphar.com
Jen Chang Sheng Chem. & Pharm.Co.,Ltd.	jsc.jsc@msa.hinet.net	(04)7354976-7	(04)735-4978	508	
Jen Sheng Pharmaceutical Co., Ltd	jena@jensheng.com	(04)23592345	(04)2359-1997	407	http://www.jensheng.com
Center Laboratories, Inc.	jessie@centerlab.com.tw	(03)5981829	(02)2545-3562	303	www.centerlab.com.tw
Jilly Pharmaceutical Co., Ltd.	jilly.gmp@gmail.com	(04)8223141-3	(04)823-4162	512	
Jinup Enterprise Co. Ltd.	jinup@ms37.hinet.net	(05)2262395, (05)2262769	(05)226-8393	621	
Johnson Chem. Pharm. Works Ltd.	johnson.twjcp@msa.hinet.net	(02)22878405	(02)2971-2579	241	
Jeou Song Chemical Enterprise Co.,Ltd.	jschem@ms39.hinet.net	(04)7695106-7	(04)769-5108	504	

Taiwan Three Mast Pharmaceutical Co., Ltd.	kamtamt@seed.net.tw	(06)2042345	(06)2637414	710	www.3mast.com.tw
Taiwan Veterans Pharmaceutical Co Ltd.	kate_wu@taiwanvpc.com.tw	(03)4651190	(03)465-7381	320	www.taiwanvpc.com.tw
Everlight Chemical Industrial Corp.	kingdavid@ecic.com.tw	(03)4838088	(02)27031386	328	www.ecic.com
Kink Laboratories Co Ltd.	kink@ms29.hinet.net	(04)22263921	(04)2223-3041	411	
Chirogate International Inc.	kirogate@ms63.hinet.net	(03)4963808	(03)4963800	32657	www.chirogate.com
Kojar Pharmaceutical Ind Co Ltd.	kojar.c9388@msa.hinet.net	(04)26815051-3	(04)26816198	437	www.kojar.com.tw
Tien Liang Biotech Co., Ltd.	ktl.chan@msa.hinet.net	(03)4696792	(02)2647-5179	324	
Panion&BF Biotech, INC.	leesufen@pbf.com.tw	(03)4697159	(02)26558318	324	
Li Ta Pharmacy Co Ltd.	lita.wang@msa.hinet.net	(04)26872345	(04)2686-8381	437	
Tolin Pharmaceutical Industries Co.,Ltd.	long_jacyyang@yahoo.com.tw	(04)25364377, (04)25363677	(04)2536-1020	427	http://www.tolya.com.tw
Long Der Pharmaceutical Co.,Ltd.	longder@seed.net.tw	(07)6220909	(07)622-6461	828	
Lotus Pharmaceutical Co Ltd.	lotus@lotuspharm.com	(049)2250411	(02)27782798, (02)27115262	540	www.lotuspharm.com.tw
Long Shin Biotech & Pharmaceutical Co., Ltd.	ls928@aptg.net	(06)7220666	(06)722-9548	722	www.lsbiopharma.com
Meider Pharmaceutical Co Ltd.	meider.drugs@msa.hinet.net	(03)4723567	(03)521-4179	326	
Mey See Pharmaceutical Co Ltd.	mey.see@msa.hinet.net	(07)3711234	(07)3736359	814	www.meysee.com.tw
SCI Pharmtech, Inc.	michele.seah@sci- pharmtech.com.tw	(03)3543133	(03)354-3137	33856	www.sci-pharmtech.com.tw
Ming Ta Chemistry Pharmacy Co., Ltd.	mingta52@ms45.hinet.net	(04)26870115-7	(04)2687-0118	438	
Min Ton Pharmaceutical Co., Ltd.	mintong@ms6.tisnet.net.tw	(04)23590107	(04)2359-4256	408	
Tong Yang Pharmaceutical Co., Ltd.	msa@ms8.hinet.net	(06)6987661	(06)698-7663	720	www.tong-yang.com.tw
Mingtai Chemical Co., Ltd.	mtchem@ms24.hinet.net	(03)3682295	(02)2721-6326	334	www.mingtai.com
Mu Tsu Pharmaceutical Chemical Co Ltd.	mtpc.komt@msa.hinet.net	(04)8330229, (04)8321229	(04)833-7702	510	
Nan Tu Chemical Pharmaceutical Co.,Ltd.	nan.tu@msa.hinet.net	(06)7260339	(06)726-1128	722	
Chung His Chemical Plant, Ltd.	nancylee@chunghsi.com.tw	(03)5772551-2	(02)2351-2884	300	www.chunghsi.com.tw
Newai Chemical Industries Ltd.	newai.company@msa.hinet.net	(05)5571111, (05)5571405	(06)274-5456	640	www.newai.com.tw
New Chemical International Enterprise Co. Ltd.	newchem@giga.net.tw	(06)6550550, (06)6550551	(06)655-0552	737	www.newchem.com.tw

Nang Kuang Pharmaceutical Co., Ltd.	nkcp@ms15.hinet.net	(06)5984121-6	(06)597-2033	712	www.nanguang.com.tw
Oasis Chemical Industries Co., Ltd.	oasis@ms65.hinet.net	(02)27671288	(02)2762-3883	105	
Sage Biotechnology Co., LTD.	onpylu@ms52.hinet.net	(02)24978076	(02)2321-5861	224	
Tung Chou Chemical & Pharmaceutical Co., Ltd.	orichem@ms41.hinet.net	(02)22815252	(02)2281-8282	247	www.oriental.com.tw
Panbiotic Laboratories	panbio@ksts.seed.net.tw	(07)7317861	(07)731-6002	833	www.panbiotic.com.tw
You Zhi Bao Biopharmaceuticals Co., Ltd.	Passalip@Yahoo.com.tw	(06)6525757	(06)6373177	730	
Bei Chin International Inc.	peijin@ms6.hinet.net	(02)27089462	(02)26486748	106	
Pfoshen Pharmaceutical Co Ltd.	ph.119@yahoo.com.tw	(04)7223923	(04)723-2498	500	
Timing-Life Medical, Inc	ppin0214@yahoo.com.tw	(07)3715106	(07)372-1182	814	
Prince Pharmaceutical Co., Ltd.	prince30@ms14.hinet.net	(03)5981438	(02)2988-5137	303	
Hua Shin Chemical Pharmaceutical Works Co., Ltd.	propr2@hspg.com.tw	(04)8832121	(04)883-0916	522	www.hspg.com.tw
San Yo Pharmaceutical Industrial Co., Ltd.	qcwen2007@hokia.com.tw	(07)7871266	(07)224-3456	831	
Taiwan Yang Sheng Pharmaceutical Ind. Co., Ltd.	r2681132@ms43.hinet.net	(08)7524112	(08)753-9476	900	
Root Chemical Pharmacy Co Ltd.	rootph.com@msa.hinet.net	(04)26882666-7	(04)2688-2667	437	
Royal Chemical & Pharmaceutical Co Ltd.	rp7310@ms23.hinet.net	(07)7310537	(07)731-0538	833	
Synmax Biochemical Co., Ltd.	sales@synmax.com.tw	(03)4863160	(02)23820559	327	www.synmax.com.tw
De Licacy Garment Co., Ltd.	san.hord@msa.hinet.net	(04)25322867	(04)2532-8821	420	www.lpco.com.tw
San Nang Chemical Co., Ltd.	sannan168@yahoo.com.tw	(04)7692668-9	(04)769-0306	504	
Shou Chan Industrial Co., Ltd.	sc254221@ms14.hinet.net	(049)2254221-3	(049)2254-617	540	
SuChiang Chemical & Pharmaceutical Co., Ltd.	sccpcl@ms38.hinet.net	(02)25618026	(02)2542-2497	104	
Sheng Chang Pharmaceufical Co., Ltd	sctechli@gmail.com	(03)4909682	(02)23011269	320	www.herb.com.tw
Shyh Dar Pharmaceuticl Industrial Co., Ltd.	sdpi@shyhdar.com	(04)23593862	(04)2359-3966	407	http://www.shyhdar.com
Sen Tai Pharmaceutical Co Ltd.	sentai.tw@msa.hinet.net	(06)6529887-9	(06)652-9884	730	
Ming Hwa Drug Co., Ltd.	service.minghwa@msa.hinet.net	(02)24978397	(02)2497-8398	224	
Pei Li Pharmaceutical Industrial Co Ltd.	service@peili.com.tw	(04)23592576	(04)2359-0992	407	www.peili.com.tw
Synpac-Kingdom Pharmaceutical Co Ltd.	service@sking.com.tw	(02)22605490	(02)25816608	236	www.sking.com.tw
TTY Biopharm Co., Ltd.	service@tty.com.tw	(03)4522160	(02)27180648	320	www.tty.com.tw

Seven Star Pharm Co., Ltd.	sevensta@seed.net.tw	(02)22685871	(02)2268-1706	236	www.sevenstarpharm.com.tw
Shinlon Pharmaceutical Industrial Co Ltd.	shinlon.pharm@msa.hinet.net	(06)2705711-2	(06)270-4821	717	
Shunjan Pharmaceutical Co., Ltd.	shunjan.gmp@msa.hinet.net	(049)2251668	(049)2251-279	540	www.shunjan.com.tw
Siu Guan Chem. Ind. Co., Ltd.	siuguan@ms66.hinet.net	(05)2360636-9	(05)2865232	600	
Shinlin Sinseng Pharmaceutical Co Ltd.	ss.pharm@msa.hinet.net	(03)4703248	(03)470-2646	325	
Sun Laboratories Co., Ltd.	sunlab@ms35.hinet.net	(02)28914125-8	(02)2894-0576	112	
Swiss Pharmaceutical Co.,Ltd.	swiss404@ms1.hinet.net	(06)2326853	(06)211-0728	710	www.swisspharm-fac.com.tw
San Yueh Chemical Corporation.	sycp@ms24.hinet.net	(05)2219068	(05)221-1063	621	
Syn-Tech Chem. & Pharm.Co., Ltd.	syntech@msl.hinet.net	(06)6362121-3	(06)635-1165	730	www.syn-tech.com.tw
Ta Fong Pharmaceutical Co Ltd.	tafong2@giga.net.tw	(04)7138165	(04)7138178	500	http://www.tfp.com.tw
Tah-An Chemical & Pharmaceutical Co., Ltd.	tah.an@msa.hinet.net	(06)2030503、 (06)2328797	(06)2377750	710	
Tai Ho Tang Pharmaceutical Co., Ltd.	taiho.tang@msa.hinet.net	(06)2633911-3	(06)264-7293	702	www.taihotang.com.tw
Taisho Pharmaceutical (Taiwan) Co., Ltd.	taisho.tw@msa.hinet.net	(03)5982624-5	(02)2559-6496	303	www.twtaisho.com.tw
Tai Yu Chemical & Pharmaceutical Co Ltd.	taiyu.act@msa.hinet.net	(03)5826655	(03)582-2389	310	www.tai-yu.com.tw
Daiichi Sankyo ProPharma Co., Ltd.	tds1002@ms27.hinet.net	(03)4580802	(02)87862569	324	
TehSeng Pharmaceutical Mfg. Co., Ltd.	teh.seng@msa.hinet.net	(06)2311636	(06)2334596	710	www.tehseng.com
Tai Fu Pharmaceutical Co., Ltd.	tffuji@ms47.hinet.net	(03)3865117	(03)386-5118	337	
Tian I Pharmaceutical Co.,Ltd.	tian.yi@msa.hinet.net	(06)6985978-9	(06)698-6662	720	www.tian-i.com.tw
Tien Chen Pharmaceutical Co., Ltd.	tien3502@ms64.hinet.net	(06)7941788	(06)794-3519	725	
Taiwan Patron Chemical & Pharmaceutical Co Ltd.	tpc6216126@seed.net.tw	(07)6216126	(07)622-0930	820	
Chen Ho Pharmaceutical Co.,Ltd.	tracy@chenho.com.tw	(06)6529311-3	(06)652-8563	730	www.chenho.com.tw
InnoPharmax, Inc.	tring7477@innopharmax.com	(02)87977607	(02)87975627	114	http://www.innopharmax.com
Taiwan Tanabe Seiyaku Co Ltd.	ttanabep@ms38.hinet.net	(03)5983655	(02)2753-4789	303	www.tanabe.com.tw
Tung Fa Pharmaceutical Co., Ltd.	tungfa01@ms23.hinet.net	(08)7530177	(08)753-6017	900	
Orient Europharma Co Ltd.	ty_plant@oep.com.tw	(03)3614102	(02)2702-4324	330	www.oep.com.tw
U Chu Pharmaceutical Co., Ltd.	ucp210@ucpharm.com.tw	(03)4773411, (03)4775177-8	(03)4777121	327	www.ucpharm.com.tw
U-Liang Pharmaceutical Co., Ltd.	uliang@ms27.hinet.net	(03)4523183	(03)452-3964	320	

Tian Machinery Technologies Co., Ltd.	vicky11251983@yahoo.com.tw	(02)29421916	(02)2941-0742	231	
Shiteh Organic Pharmaceutical Co Ltd.	vivian@healthcare.com.tw	(02)29811451	(02)2298-1565	241	www.shiteh.com.tw
Synmosa Biopharma Corp.	wayne3001@mail.synmosa.com.tw	(03)5983500	(03)598-1390	303	www.synmosa.com.tw
WEIDAR CHEM. & PHARM. CO., LTD.	wd830121@ms8.hinet.net/judychang@weidar.com.tw	(04)23593847, (04)23593852	(04)2359-3336	408	www.weidar.com.tw
Chiuann Feng Tarng Pharmaceutical Co.,Ltd.	webmaster@ox-brand.com	(03)4737996	(03)4737995	328	www.ox-brand.com
Chi Sheng Chemical Corporation	wen@csop.com.tw	(03)5983811	(03)598-2855	303	
GenMont Biotech Inc.	william@genmont.com.tw	(06)5052151	(06)5052152	741	www.genmant.com.tw
Genovate Biotechnology Co., Ltd.	williechiang@genovate-bio.com	(03)5982221	(03)5982804	303	www.genovate-bio.com
Winston Medical Supply Co Ltd.	winstons@ms11.hinet.net	(06)2533124-6	(06)2538590	710	
Wan-Kuo Pharmaceuticals Co., Ltd.	wkp@wkp.com.tw	(06)3310999	(06)2919723	701	
Washington Pharmaceutical Co., Ltd.	wp3711651@yahoo.com.tw	(07)3711651	(07)3714801	814	
Wu-Fu Laboratories Co.,Ltd	wufu.lab@msa.hinet.net	(03)9901470, (03)9902489	(03)9902-487	270	
China Chemical & Pharmaceutical Co., Ltd.	y.n.sun@ccpc.com.tw	(03)5599866	(02)2361-5143	304	www.ccpc.com.tw
Ying Yuan Chemical & Pharmaceutical Co Ltd.	y2654883@ms17.hinet.net	(06)2654883	(06)264-3511	702	www.ying-yuan.com.tw
Sheng Chung Chun Tang Pharmaceutical Industrial Co., Ltd.	ycheng2@herbalmed.com.tw	(06)2325155	(06)233-5076	710	www.shengchun.com
Souriree Biotech Pharmaceutical Co Ltd.	ye@souriree.com.tw	(02)26726032	(02)25216124	237	
Y F Chemical Corp.	yfc@yfchem.com.tw	(02)22021112	(02)2204-1116	242	www.yfchem.com.tw
Yung Sine Pharmaceutical Co Ltd.	ys3688@ms15.hinet.net	(03)3688321-4	(03)368-6507	334	
Yung Shin Pharm Ind. Co., Ltd.	yvsp@yungshingroup.com	(04)26815181	(04)26869418	437	www.yungshingroup.com
Yung Zip Chemical Co.,Ltd.	yspgyzc@yungshingroup.com	(04)26811344	(04)2682-1007	437	www.yungzip.com
Yusheng Pharmaceutical Co., Ltd.	yspharm@ms14.hinet.net	(04)23593968	(04)2359-0924	40850	www.yusheng.com.tw
Yih Sheng Tang Pharmaceutical Co., Ltd.	ystc430@ms38.hinet.net	(03)5983406	(02)2311-8928	303	
Chung I Pharmaceutical Co.,Ltd.	yuenuo.biotech@seed.net.tw	(06)2662163	(06)366-1057	717	
Savior Lifetec Co., Ltd.	sales@saviorlifetec.com.tw	(037)580100	(037)580200	350	http://champlée.myweb.hinet.net