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**The Effect of Socio-economic, Personal and
Perceptual Variables on Taiwanese Consumers'
Private Brands Purchase Behaviour: An
Integrated Framework**

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Declaration

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

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Abstract

Private branding strategy plays an important role for international retailers entering Asian grocery markets since there is a consensus that it helps retailers not only improve the store profitability but also differentiate themselves from other competitors. However, our present understanding of consumer responses to private brand (PB) is mainly based on studies of Western markets that have long PB development history. Generally speaking, European and American consumers have sophomore purchase experience and well familiarity with local retailers and their own brand products. Little scholarly research has examined factors influencing consumers' selection of private brands offered by international retailers in Asian countries such as Taiwan.

The purpose of this thesis is to identify how individual characteristics can be used in predicting Taiwanese consumers' preferences for private brands since a successful marketing strategy is always based on well understanding how preferences vary with consumer factors. This thesis first reviews previous studies of PB and presents the results of six focus groups in Taiwan. These results identify six key consumer characteristic variables (i.e. price consciousness, perceived PB quality, perceived PB risk, store reputation reliance, innovativeness and familiarity with PB) influencing consumers' PB attitude and purchase intention. This thesis then proposes a model that integrates these six consumer characteristic variables.

In view of the potential store difference, data were collected from two international retailers, Carrefour and 7-11, in Taiwan. A total of 409 useable questionnaires (222 from the on-line surveys and 187 from face-to-face interviewing) were collected and analyzed. The findings revealed that Taiwanese consumers are more concerned about the quality than the price of these international retailers' PB products. The results also demonstrate that when consumers are more familiar with international retailers' PB, they have more confidence in evaluating product quality, reducing perceived PB risk and enhancing price consciousness of PB in the same time. Similarly, when consumers perceived better store reputation, they will perceive better

quality of the PB and have better PB attitude and higher purchase intention toward the retailer's PB.

More importantly, this paper verified that innovative private brand can increase consumers' perception of private brand quality and ultimately increase their intention to buy it. Also, this thesis finds that some consumer characteristics variables have more correlation with PB purchase intention and the contribution of the variables varies from Carrefour to 7-11. In general, however, perceptual variables have stronger prediction power than personal and socio-economic variables.

These findings highlight the importance of consumers' familiarity with PB and perceived quality of PB and suggest that managers should increase various promotional activities to facilitate consumers' familiarity with their PB. For example, they can offer free samples or tasting at the point of sale, to increase consumers' familiarity with their PB products in the future. More academic and managerial implications and suggestions for future research are discussed in the conclusion chapter.

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Chapter 1 Introduction

1.1 Chapter Overview

In recent decades, the emergence of a number of new markets in Asia has created new opportunities for retailing firms (Rogers et al., 2005). Many successful retailers enter these Asian markets with their private brand (PB) products. Therefore, Asian consumers have started to become aware of the benefits of buying PB products offered by those international retailers. However, little scholarly research has examined factors influencing consumers' selection of private brands offered by these international retailers in the Asian markets. This thesis, therefore, attempts to identify the correlation between specific consumer characteristics and interpersonal differences in PB purchase intention and then to propose a model that integrates six consumer characteristic variables (i.e. price consciousness, perceived PB quality, perceived PB risk, consumer innovativeness, store reputation reliance and familiarity with PB) influencing PB attitude and purchase intention in an emerging Asian market, Taiwan.

This chapter outlines the thesis, starting with an introduction to the research motivation. The chapter then briefly describes the research purposes and sub-objectives in 1.3 and describes, in 1.4, what kind of research methodology and method were used. Section 1.5 describes some expectation of the research results and contributions and finally, the structure of the thesis is overviewed in 1.6.

1.2 Research Motivation

Private brands played an important role in the food retailing market, since they were introduced in 1869 in England (McMaster, 1985). In the past 30 years, consumers have witnessed an important retail trend, the rise of private brand (from now on PB) products around the world (M+M Planet Retail,

2004). Private brands (i.e. brands controlled and sold by retailers)¹ were originally limited to large food-store chains (Burt, 2000). But now, major chain retailers around the world such as grocery store (e.g. Tesco), convenience store (e.g. 7-11) and pharmacy (e.g. Boots) all offer their own PB products.

By developing PB, individual retailers now play an active role in the production of final goods. These products now represent 10% to 40% of retail food sales in the different EU countries (Bontemps et al., 2008). Many food-store chains recognized the potential of selling PB products in addition to the benefits they provided, and began marketing them as an important part of their business. These benefits can be visible profit from selling high margin PB products (e.g. Hoch and Banerji, 1993) and increasing control over shelf space and invisible profit from increasing store loyalty (e.g. Binninger, 2008), adding market power to retailers (e.g. Hoch, 1996) and enhancing store reputation (e.g. Corstjens and Lal, 2000).

In Europe, PB sales have increased generally over the decade since the late 1990s (Planet Retail, 2007). These PB ranges are increasingly challenging manufacturers' brands in food grocery categories (ACNielsen, 2003). According to IGD research, around one third of European consumers claim to be buying more PB products (IGD, 2009). According to a survey of 80 grocery items, the average PB market share in Europe is about 23% (ACNielsen, 2005). Switzerland had the highest PB share of 45% and Germany was second with a PB market share of 30%.

The success of private branding strategy is also evident by the successful retailers. For example, British retailers such as Tesco and Sainsbury have achieved dominant positions over national brands in many product categories in the UK (Fitzell, 1992; Richardson, 1997). Evidence can also be found in other European countries. For example, in Spain, DIA's private

¹ According to the Private Label Manufacturers' Association (PLMA), "Private label products encompass all merchandise sold under a retailer's brand. That brand can be the retailer's own name or a name created exclusively by that retailer. In some cases, a retailer may belong to a wholesale group that owns the brands that are available only to the members of the group."

label brands comprise 50% of this chain's annual turnover, and in France, Carrefour has become the industry leader through the strength of its "produits libre" line of private brands (Dick et al., 1995).

Despite the long history, it is in relatively recent times that the European retail sector has seen substantial expansion of international operations (Dawson, 2001). The emergence of a number of new markets in Asia, East Europe and South America has created new opportunities for retailing firms and these firms are thus entering these markets and becoming increasingly international (Rogers et al., 2005). Because of the increasing internationalisation of retailers, private branding is not only a domestic issue but also plays a key role in retailing success internationally.

The report from M+M Planet Retail (2004) indicates that PB products now account for more than 20% of global grocery sales and are expected to grow to 30% by 2020. Not only American but also major European food-retailing firms like Tesco, Carrefour, Macro, Auchan and Casino all expanded to overseas markets especially in the emerging economies such as Taiwan, Brazil and Mainland China.

Among all these emerging economies, Taiwan has the highest convenience store density in the world (one store per 2800 people; ACNielsen, 2005) and second highest hypermarket density in Asia (one store per 210 thousand people; ACNielsen, 2006). These developments support the view that Taiwan is one of the most competitive markets in the world. Many international retailers decide to enter Taiwan before other Asian countries such as China and Singapore. For example, French hypermarket retailer, Carrefour, opened its first store in Asia in Taiwan in 1989 and later China, Malaysia, Indonesia, Thailand and Singapore. Another example is the Japanese convenience store retailer, 7-11, that opened its first store in Japan in 1974 and then Taiwan in 1979 followed by Hong Kong, China and other Asian countries.

However, compared to Western European countries that have a long

history of PB development and highly sophisticated PB markets, Asian markets are relatively underdeveloped in terms of PB penetration. For example, Singapore had an average PB market share of 4% and South Korea 1% (ACNielsen, 2005). In Taiwan, the PB market share in grocery was around 5% in 2005 but this increased to about 10% in 2008 (Liu and Wang, 2008). This reflects partially the observation that offering PB products does not succeed in the highly competitive market unless retailers can provide specific value to their consumers with their PB products.

Some previous studies have found that price saving is the major value for PB since it is the most important reason for purchasing PB products (e.g. Burger and Schott, 1972; Burton et al., 1998; Sinha and Batra, 1999). Though the price of an item is a key variable in communicating to the customer the value of the product (Dickson and Sawyer, 1990), it does not mean that all retailers have to do to provide the cheapest PB products and become the price-led retailer in the market. On the contrary, they have to get a much more detailed understanding of their target customers and to develop a more targeted response to customers' expectations (Miranda and Joshi, 2003).

After a review of relative literature, it is surprising that our present understanding of consumer responses to PB, however, is mainly based on studies of either European or American consumers. These studies have been undertaken in the US or European countries where consumers are familiar with retailer own brand products. In terms of countries having short PB development histories such as Taiwan, little scholarly research in English has examined factors influencing consumers' selection of private brands offered by these international retailers. This research, therefore, argues that there is a need for study to focus on the international retailing markets, especially the Asian markets. More detailed discussion is presented in Chapter 3.

Moreover, a framework of the factors that might influence consumers' intention to buy these international retailers' private brands is still lacking.

No research so far has attempted to integrate all consumer characteristics including socio-economic, personal and perceptual variables into an integrated framework to predict consumers' PB purchase intention.

1.3 Research Purposes

This thesis aims to shed some light on understanding Taiwanese consumers' PB purchase behaviours. Understanding what kind of market segment to pursue is always important because retailing managers have always been interested in identifying the PB prone consumers on the basis of available psychological or demographic data. Especially when they enter a new or unfamiliar market, the new PB strategy must change to pursue the "correct" consumers. If such consumers can be identified precisely, it will allow retailing managers to understand consumers' needs and thus to design specific marketing strategies to appeal to such consumers more effectively (Blattberg et al., 1978). For example, if retailing managers precisely know that price conscious consumers are more PB prone, retailer's PB marketing strategies could use "Everyday low price strategy" or "Lowest price guarantee strategy".

Similarly, more accurate identification of PB prone consumers would increase the retailer's ability to separate PB prone consumers from national brand buyers to reduce the price competition and thus increase the profitability. For example, Hoch and Banerji (1993) identified that price conscious American consumers tend to purchase PB. This information gives the retailer a chance to sell lower price PB products to the price conscious consumers and to sell higher price manufactures' brands to the less-price conscious consumers at the same time. This situation successfully helps the retailer to reduce price competition between PB and manufacture brands and results in earning more profit in the same category. In short, identifying the consumers' psychographic and demographic characteristics can not only reduce marketing costs but also enhance channel cooperation.

In addition, some earlier studies found that consumers' perception toward

private brands might differ by stores. For example, McGoldrick and Marks (1987) interviewed 214 British women shoppers and found that the level of consumer price awareness is different by stores. Specifically, Tesco brand buyers are more price conscious than Sainsbury brand buyers. Though McGoldrick and Marks' research is now out of date, it is still interesting to further understand the difference in consumers' reaction to different retailer's PB products. This research, therefore, selected PB offered by Carrefour (France) and 7-11 (Japan), two leading international retailers in Taiwan, as the target firms.

In short, the purpose of this research is to offer an integrated model in predicting Taiwanese consumers' purchase intention of two international food retailers' PB products (i.e Carrefour and 7-11). In seeking to enhance current understanding of the role of consumer characteristics on PB purchase intention, a model that integrates these consumer characteristic variables influencing PB attitude and purchase intention in Taiwan was proposed and then tested. Understanding more about the perception of consumers toward PB has implications for international retailers since when these retailers are contemplating a move into an unfamiliar foreign market, success or failure is affected, in part, by how local customers perceive their PB products.

1.4 Research Methodology and Method

This research employs a mixed method approach that combines qualitative and quantitative research methods into a single project. Though from an epistemological version, qualitative and quantitative research methods are grounded in incompatible epistemological principles. It is impossible for a single item of research to use inductive and deductive research strategy at the same time (Bryman, 2004). However, a technical version offers an opposite view on the issue. Particularly, a technical version gives greater prominence to the strengths of the data collection and data analysis technique with which qualitative and quantitative research is each associated and sees these as capable of being fused (Bryman, 2004; p. 454). This

research followed latter technique that combines a qualitative and a quantitative research strategy into a single project.

This thesis adopts a facilitation approach, a kind of mixed method strategy. Expressly, this strategy uses a qualitative focus group method to supplement the hypotheses that are generated from a review of the literature. This research first reviewed related literatures and some research hypotheses were proposed after a review of previous research findings. Then six focus groups were held in Taiwan to provide depth to the hypotheses. The results of interviews showed that there might be some indirect correlations among variables and therefore some new hypotheses were proposed based on the results of focus group.

To test the hypotheses generated from the literature review and focus group discussion, this research first selects two leading retailers, 7-11 and Carrefour, as the research targets and collects primary data through both person-administered and computer-administered survey. The data is then analyzed with statistical methods including the regression analysis, cluster analysis, bivariate correlation analysis, ANOVA and structural equation modelling (SEM). More detailed descriptions of research method and research process are presented in Chapter 4.

1.5 Expected Research Contribution

By testing the research hypotheses, this research identifies that some consumer characteristics can be used to understand the heterogeneous preferences for different firm's private brands. Though some early studies (e.g. Hoch and Banerji, 1993; Batra and Sinha, 2000) have proven that price consciousness has better predicting power than other variables in the USA, this research expects to have different results in Taiwan. In particular, this thesis argues that though price saving is important, some other non-price factors such as quality consciousness, familiarity with PB, store reputation, innovativeness are also critical in predicting Taiwanese consumers' PB purchase behaviours.

This research also proves that there are some interesting direct and indirect correlations among consumer characteristic variables. By testing the research model, this research finds that while some variables have a direct effect on PB purchase behaviour, others have an indirect effect. For example, this research finds that though consumer innovativeness has no direct influence on PB purchase intention, it has indirectly significant influence through increasing better quality perception toward the PB. More detailed descriptions of research results and research findings are presented in Chapter 8 and 9.

1.6 Thesis Overview

The thesis structure is organized as follows. Chapter 2 provides an introduction to the research background. Because most early research focuses on the PB development in Western countries with a long PB development history, there is the little information about the development of PB in Taiwan. To fill the gap, Chapter 2 provides a brief overview of the Taiwanese grocery retailing and an overview of the PB development process in Taiwan.

After understanding the brief background of PB development in Taiwan, this thesis reviewed relative research into factors correlate with consumers' purchase of PB products. Early studies have identified various consumer characteristic variables that can be used in predicting PB purchase behaviours. Chapter 3 critically reviews these studies. By reviewing literature, this research summarizes and compares the previous findings and then proposes 12 research hypotheses.

Chapter 4 discusses the research questions, purposes, methodology and process. To answer the research questions, this research adopts a mixed research strategy combining both qualitative and quantitative research methods into a single project. Specifically, this research first uses qualitative focus groups to generate a research model and then tests the model with

quantitatively statistical analyses.

Chapter 5 provides the results of the focus group discussion. As mentioned above, this research used a qualitative focus group method to support the hypotheses that were generated from a review of the literature and to offer new research hypotheses. So in this chapter, the results of focus group are represented and then organized into new research hypotheses. Thirteen research hypotheses are proposed based on the results of discussion.

Chapter 6 presents the design, piloting and modification of the research questionnaire. This chapter first demonstrates the development process of the research questionnaire used in the consumer surveys. The chapter then goes on to show the process and the results of pilot testing. Since this study proposes an original model based on the results of focus group discussion, a pilot test is necessary. The research questionnaire then was modified based on the pilot test outcome.

Chapter 7 demonstrates how data was collected from Taiwanese consumers and how the reliability and validity of constructs utilized in this research were tested. To get widespread primary data, this thesis collects from personal-administrated and computer-administrated resources. In general, the results of sample description showed a sound demographic distribution of samples

Chapter 8 shows the results of hypotheses testing. This testing includes intra-brand, inter-brand, pan-brand and structural equation modelling (SEM) analyses. Statistical software including SPSS and AMOS were used to test the significance of research hypotheses. In general, most research hypotheses are significant and consistent with expectation.

Finally, Chapter 9 summaries the research results and discusses the research findings. The findings have important managerial implications and academic contributions. In general, these results confirmed most findings of PB studies whilst few results are specific to Taiwanese consumers. Because

of the natural complexity of consumer behaviours, some research limitations still exist. This chapter, therefore, outlines the limitations and suggests possible future directions for research in PB.

Chapter 2 Research Background

2.1 Chapter Overview

This thesis aimed to understand the Taiwanese consumers' perceptions of private brand (PB) products offered by two international retailers in the food sector. However, as mentioned in Chapter 1, since there is only a short history of PB development, little scholarly research investigated the development of PB and consumers' perception of PB in Taiwan. Before reviewing the previous literature of PB, therefore, there is a need for this research to know more about the background of PB in Taiwan.

The purpose of this chapter is to look at the way in which private brands have developed in Taiwan. This chapter first discusses the general development route of PB since the development track of PB in Western countries sheds some light on the possible reactions for the Taiwanese consumers' perceptions of different stores' PB products. Drawing on secondary data sources, this chapter shows the evolutionary sequences of retail brand development in Taiwanese grocery retailing logically. The finding suggests that the evolutionary sequence of retail brand development in Taiwanese grocery retailing varies from that experienced Western countries.

2.2 Private Brand Generations

This section discusses how PB generation theory has been developed and applied to understating the types of private brands, and what should we notice when doing the research on PB.

2.2.1 A Typology of Retailer Brands

Private brands have clearly evolved (Wulf et al., 2005). As the development of PB strategies become sophisticated, the evolutionary sequence of retail

brand development is now generally accepted. Several studies including Laaksonen and Reynolds (1994), Wileman and Jary (1997) and Burt (2000) have contributed to define and identify the characteristics of each generation. Among these studies, Laaksonen and Reynolds' (1994) study might be the most well known one.

Laaksonen and Reynolds (1994) proposed that there are at least four tiers of PB products and each stage exhibits important differences in product characteristics, production technology input, marketing position and consumer motivation. Specifically, four stages are ranging from low quality, no-name generics to cheap, medium quality private labels to somewhat less expensive, comparable quality private brands, to premium quality, high value added PB that are not priced lower than national brands (see Table 2.1 below).

Laaksonen and Reynolds (1994) further argued that these categories might overlap. This means that consumers can find all four generations PB products in the same category in a store. In other words, there might be two or more tiers of PB products on the shelves. In fact, some chain grocery retailers for example such as Carrefour and Tesco in Europe offer a range of qualities of PB products. British consumers can buy orange juice of "Tesco Value" at a lowest price and/or "Tesco" with higher price and/or "Tesco Finest" with price not lower than leading brands in the same store.

Table 2.1 A typology of retail brands

	1st Generation	2nd Generation	3rd Generation	4th Generation
Type of Brand	Generic No name Brand free Unbranded	"Quasi-brand" Own label	Own brand	Extended own brand, i.e. segmented own brands
Strategy Objective	Generics Increase margins Provide choice in pricing	Cheapest price Increase margins Reduce manufacturers' power by setting the entry price Provide better-value product (quality/price)	Me-too Enhance category margins Expand product assortment, i.e. Customer choice Build retailer's image among consumers	Value-added Increase and retain the client base Enhance category margins Improve image further Differentiation
Product	Basic and functional products	One-off staple lines with a large volume	Big category products	Image-forming product groups Large number of products with small volume (niche) Innovative technology
Technology	Simple production process and basic technology lagging behind market leader	Technology still lagging behind market leaders	Close to the brand leader	
Quality /Image	Lower quality and inferior image compared to the manufacturers' brands	Medium quality but still perceived as lower than leading manufacturers' brands Secondary brand alongside the leading manufacturer's brand	Comparable to the brand leaders	Same or better than brand leader Innovative and different products from brand leaders
Approximate Pricing	20 per cent or more below the brand leader	10-20 per cent below	5-10 per cent below	Equal or higher than known brand
Consumers' Motivation to Buy	Price is the main criterion for buying	Price is still important	Both quality and price, i.e. value for money	Better and unique products
Supplier	National, not specialized	National, partly specializing to own label manufacturing	National, mostly specializing for own brand manufacturing	International, manufacturing mostly own brands

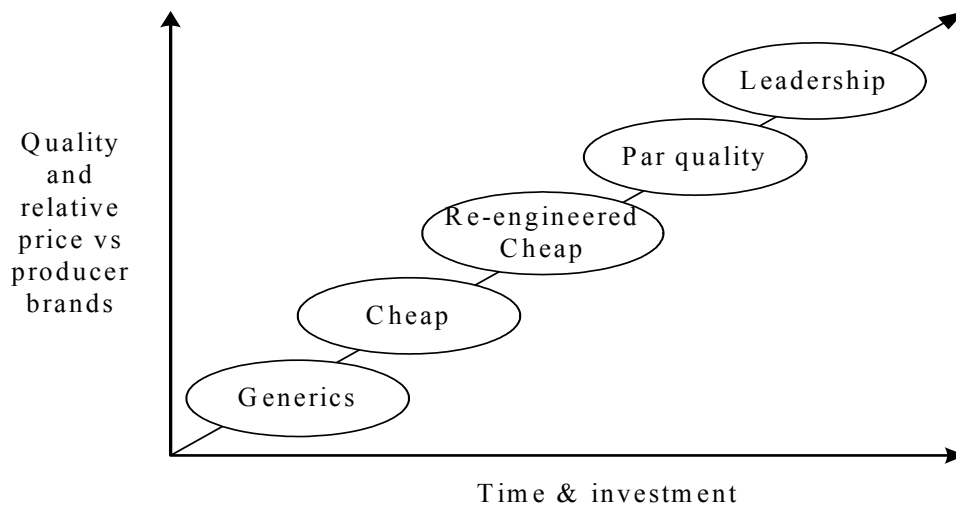
Source: Laaksonen and Reynolds (1994)

Similarly, Wileman and Jary (1997) suggested five stages of retail brands, including generics, cheap, re-engineered low-cost, par quality, and leadership (see Figure 2.1). The first two stages of private brand, generics and cheap private brands, required little or no investment. The retailer only needs to put out to tender to third-tier producers with spare capacity. More specifically, since the generics and cheap private brands have no or few differences from other brands, they can ask less famous or no name manufacturers to produce their PB. From the consumers' perspective, they might only care about the price saving from buying these brands since generics and cheap private brands offer no difference.

But in the later stages, retailers require some level of proactive management and investment in private brands. In order to maintain the price advantage, retailers have to negotiate with higher quality second-tier producers with excess capacity. In some cases, retailers have been accused of copying the package colours and conventions of the national brands in order to imply the same level of product quality (Burt, 2000). Though these 'lookalikes' PB products have the advantages of confusing elderly and impulsive shoppers in the short-term (Balabani and Craven, 1997), copying the package or design of national brands is not enough for the leadership PB.

At the final stage of development, leadership private brands require extensive investment by the retailer. Retailers have to invest not only time to accumulate invisible know-how and to establish close long-term supplier relationships with supplied chain partners but also money to invest in visible improvement of product design and quality control. In this stage, leadership private brands have to offer more values such as premium quality or special taste to consumers since the price of leadership private brands might be higher than other national brands.

Figure 2.1 Stage of private brand development



Source: Wileman and Jary (1997)

More recently, Burt (2000) indicated that the development of PB has a move from price to non-price competition. He pointed out that during the age of the late 1970s and early 1980s in the UK, the competition among retailers focus on the price competition. British retailers introduced a three-tier structure of private brands, seen as the high-quality/high-price alternative; retailer brands, generally positioned as a mid-quality/mid-price alternative; and a “generic” range offering acceptable quality for a low price.

But during the mid-1980, the British retailers emphasis has been change to offer both income-generating services such as dry cleaning, coffee shops and photo-processing, and customer-service initiatives such as baby changing facilities, dedicated car parking facilities, bag packing, one-in-front schemes and customer-service desks. This change in competition emphasis required a reconfiguration of existing buying teams whose core skills were no longer simply promotion, but needed to encompass a range of marketing and merchandising skills, technical support and human resource training.

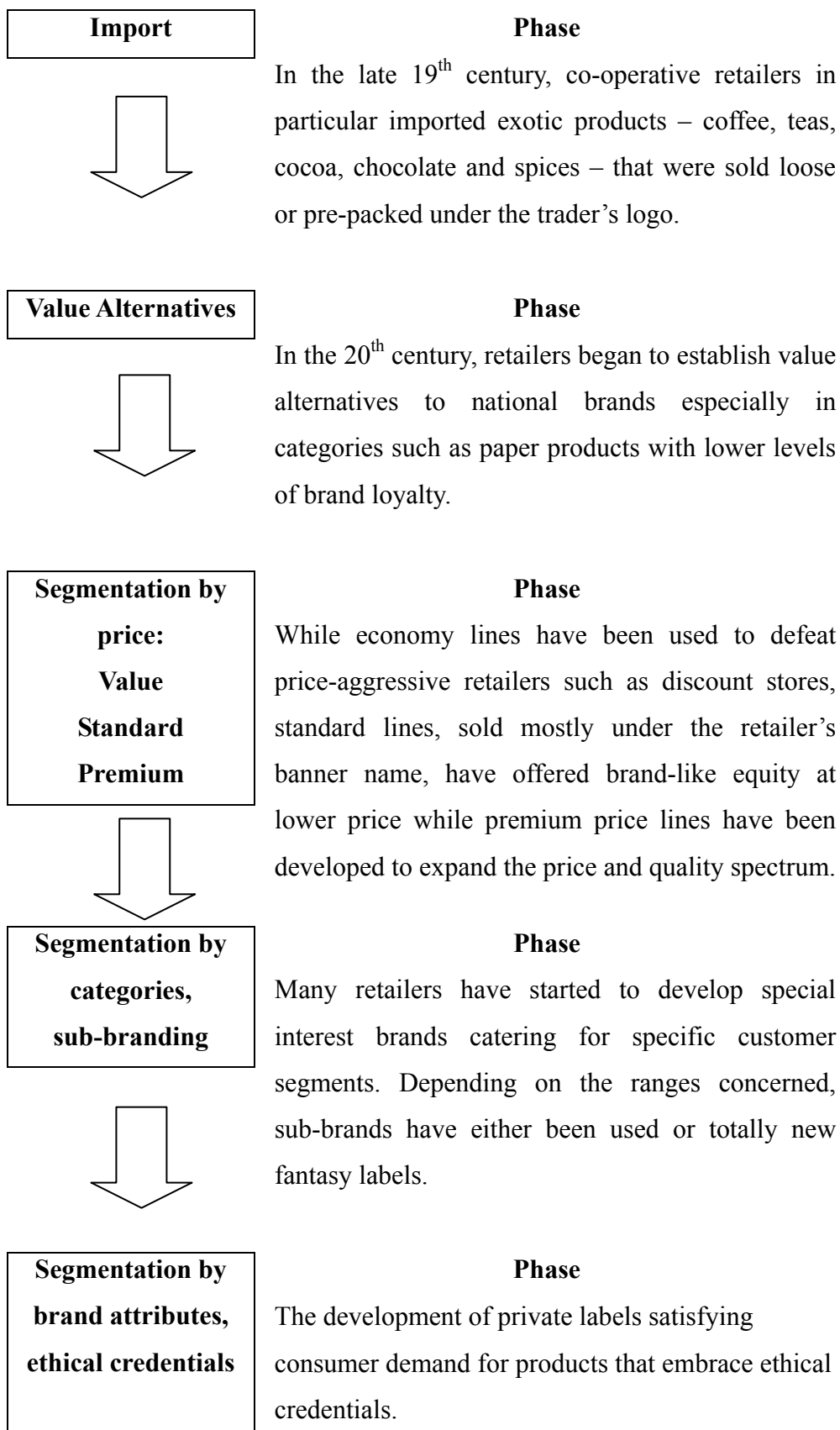
Further research by Planet Retail (2007) reveals that as retailers’ level of sophistication increases, their private labels are evolving. More specifically, there is a subtle shift in the role that private labels play in a retailer's branding strategy when moving from functional price-based products to

ones that embrace their broader brand credentials encompassing trading ethics to sustainability, healthy eating and organics. This evolution process is shown in Figure 2.2 below.

In conclusion, all these studies suggest that in terms of PB evolution the process involves moving from low-price/low-quality to the high-price/high-quality private brands (Laaksonen and Reynolds, 1994; Wileman and Jary, 1997; Burt, 2000). This moving required retailers' investment in both time and money and needed retailers' effort to maintain closer relationship with supply chain partners. Therefore, as the quality and price of PB increases, retailers have more opportunities to focus on offering better quality and even innovative PB products to their customers.

But it is important to notice that previous studies revealed a very general outline of the development process of PB. More details and examples about each development process are needed. In fact, not all countries or retailers progress through the same sequence because of the existing cultural, historical and economical differences. Since early research results were based on the observation of PB in European countries or the US that has a similar cultural background and a long PB history, it is reasonable for this research to further discuss the PB development a country such as Taiwan that has a short PB history and a traditional Chinese cultural background.

Figure 2.2 Evolution of private labels



Source: Planet Retail Ltd – www.planetretail.net

2.2.2 Discussion on the Generic and Private Labels

Initially, the basic marketing strategy used for PB products is that by reducing or removing traditional marketing features such as extra packaging and expensive advertising, retailers can offer the generic, private label or PB products at substantially lower prices for consumers. Usually, they are differentiated from other national brands by appearance, size or flavour but this does not affect the functional nutritional qualities of the products. Like all other national brands, private label/brand products still have to meet the same health standards set by the government. For example, Tesco bacon may be packed with different size cuts, while the nutritional value of the product is the same as that of national brand bacon. However, the ways for retailers to use the PB as a strategy is quite different among four generations.

The first generation of retailer's brand is the generic product. The lowest price generic products are usually priced 20 per cent or more below the brand leader and unbranded providing an alternative choice for consumers to save their money. The success of generic products is illustrated by experiences in France where they were first marketed by Carrefour. In 1979, these generic products accounted for 4 percent of the total grocery sales and, in some categories, they reached 40 percent of total sales (Cunningham et al., 1982). However, because of lower quality, these lowest price generic products have a risky and inferior image compared to the manufacturers' brands. So the issue related to the perceived PB risk between generics and national brands is most important.

Much of the early research focused on the generics. For examples, Bearden and Mason (1978) tried to understand why some individuals refuse to use generic drug products and their results indicated that concerns regarding performance, financial savings, and safety may hinder consumer acceptance of generic drug substitutions. Granzin (1981) investigated the market for generic products and his results indicated that generic buyers are shown to be characterized by greater concern with price, lower brand loyalty, less

preference for national as opposed to private brands and greater “venturesomeness” than non-buyers. Wheatley (1981) found that consumer perceptions of the quality of national and private brands are apparently altered when generics are introduced in at least some product categories. Cunningham et al. (1982) showed that there are several differences among loyal customers. These customers tend to be categorised into three types (i.e. national brand, PB and generic). Customers who are generic brand buyers are generally younger and better educated than the national and PB buyers. Wu et al. (1984) found that risk taking is positively associated with the number of generic products purchased, but risk takers would not routinely purchase generic items perceived as high-risk.

In the second generation, the cheapest private label products are usually priced 10 to 20 per cent below the brand leader and since technology for private label products still lags behind market leaders, the quality is still inferior to leading national brand. Though private labels are generally priced much lower than national brands, the higher margins earned on these products enable retailers to expand into lower volume categories for which success depends on greater per unit contribution margins. Specifically, on one hand, PB products produce higher gross margin than national brand products due to low marketing expenditures and supply price (Mills, 1995; Quelch and Harding, 1996) and on the other hand, PB with a lower price may attract higher store-traffic for the retailer.

In the second generation, there are two main streams of research. The first stream is whether a retailer can provide better-value product (quality/price) for the consumer. There are many studies exploring this issue. For example, Connor and Peterson (1992) found that product differentiation plays a powerful role in determining the difference in national brand and private label prices. Horowitz (2000) used an option-pricing model to explore the impact of various factors on whether and when a retailer will choose to introduce its private labels in a product category that is an exclusive domain of a manufacturer.

Another critical stream of the research is whether a retailer can gain more profits from introducing private label products. For example, Hoch and Banerji (1993) found that private labels perform better in large categories offering high margins. Private labels also do better when competing against fewer national manufacturers who spend less on national advertising. Mills (1995) used some empirical evidence to prove that the net effect of private label marketing is to improve the performance of distribution channels. Parker and Kim (1997) found that the “battle of private labels” might result in an alliance with private labels since heavy advertising among national brands can increase price, revenues and profits for both national brands and private labels. Narasimhan and Wilcox (1998) found that retailers introduce private labels in a category not only to gain profit from the private label but also to use as a strategic weapon to elicit concessions from the national brand manufactures.

In conclusion, in the first and second generation of retailer’s brand, price and risk are two main criterions for purchase decision for consumers and margins for retailers. Both generic and private label products are characterised by much lower prices than leading national brands and most research concerns the ‘low-cost strategy’ for retailers in introducing their own label products. Though cheap generic and private label products offer retailers a chance to build a lower-price image for consumers and enhance store traffic, they can’t be used to build store difference or loyalty efficiently. Even some price focus retailers can use cheap generic or lower quality private label products to attract specific consumers; other stores can allure these consumers into their store by offering similar or lower price products. In other words, unlike PB or extended PB, generic and private label offer little or no chance for the retailer to build store loyalty since generics cannot be differentiated and the quality of own label still far lower than leading manufacturers' brands. Therefore, it is difficult for a retailer to use cheap private label or generics products to build store differentiation.

However, as the power of retailers increase, the demand for retailers to build store loyalty or store difference is higher and higher and now almost every

big retailer in Taiwan such as Carrefour, RT-Mart and 7-11 all operate their PB to substitute for generic in order to build their store loyalty. Therefore, this research excludes this kind of no-name generic or “cheapest” private labels as a kind of private “brand”.

2.2.3 Discussion on the Private Brands and Extended Private Brands

In the third and fourth generation, the price gap between private brands and leading national brands is small and the PB price may be set above or below national brand prices. Both PB and extended PB products offer close or even better quality than the brand leader in the market. By introducing the innovative and premium, private brands or extended private brands play more critical functions for retailers. These functions include allowing retailers to build their own image among consumers (e.g. PLMA, 1999), improving stores' differentiation toward competing stores (e.g. Davis, 1990) and building strong store loyalty (e.g. Corstjens and Lal, 2000).

Now, more and more retailers are attempting to create a line of PB that spans these tiers (Mann et al., 2002). In the UK, since retail grocery brands have developed to the more sophisticated levels in any schema (Burt, 2000), they are enacting a price tier strategy by engaging their own brands as a vehicle of differentiation for a tier (Fratto et al., 2006). Table 2.2 summarizes some British retailers' PB strategy. The leading retailers, Tesco, provide a lowest price “Tesco Value” and medium price PB “Tesco” and highest price extended PB “Tesco Finest”. This attracts three different consumer segments in terms of demand. And it is easy to notice that in some food product categories both high quality "Tesco Finest" and price fighting “Tesco Value” coexist. Similarly, another famous British retailer, Sainsbury provides its lowest price “Sainsbury's Basics” and medium price PB “Sainsbury” and higher price extended PB “Taste the Difference” to attract different consumer segment. Similarly, other British retailers, Asda and Morrisons, offer a three-tier structure of private brands.

Table 2.2 British retailers' private brand strategy

Retailer	Value	Standard	Premium
Tesco	Value	Tesco	Finest
Sainsbury	Basics	Sainsbury's	Taste the Difference
Asda	Smart Price	Asda	Extra Special
Morrisons	Bettabuy	Morrisons	The Best

Source: Planet Retail Ltd - www.planetretail.net

Furthermore, some 4th generation brands have appeared in the UK and retailers have used the PB strategically to launch initiatives championing “new” consumer values such as convenience, healthy eating, animal welfare or environmental issues (Shui et al. 2004). Retailers such as Sainsbury and Tesco in Great Britain have added new private brands offerings to their mix. In addition to continuing to offer a ‘value’ or ‘no frills’ option, they also now offer healthy PB lines for both adults and kids (ACNielsen, 2005). Some high quality “organic” PB products such as “Sainsbury’s So Organic” and “Tesco’s Organic” are sometimes more expensive than national brand products. The evolution of these product ranges over the past 30 years, from first generation generic product, offering the consumer an acceptable quality product alternative for a lowest price, into retail brands offering a true quality brand alternative, reflects the increasing power of retailers in the retail environment.

Now, grocery retailers are viewing PB products as “an opportunity for building store image and differentiating their stores from competitors” (PLMA, 1999). A strong relationship between store and private brands image is the fundamental requirement for a successful store differentiation strategy. By introducing quality and innovative PB products that satisfied their clients, retailers could build store differentiation benefits. Specifically, since private brands are available only at the sponsoring store and private brands are the only brands that retailers can control the products from design to after sale service, a successful PB introduction can help a retailer to build and maintain a competitive advantage over other retailers. Therefore, since a retailer must compete with other retailers by blurring any

perceived differences between national brands and their own brands, private brands may greatly assist the retailer in gaining a unique competitive position in the market (Richardson et al., 1994). For example, Collins-Dodd and Lindley (2003) found that the most important determinants of store selection were quality products, convenient location and value. PB products offer retailers a chance to build a robust store image in quality products and transfer value to their consumers.

Retailers are also viewing PB products as a useful tool to build their own store loyalty. If a brand that offers extra value for consumers is available only at a particular retailer, the consumer must go to that retailer store to purchase it. Therefore, strong private brands programs that differentiate among competitors can contribute to the lifetime value retailers derive from their customers through both brand and store loyalty (Collins-Dodd and Lindley, 2003). For example, President's Choice is the PB of Loblaw Companies Limited, the largest food retailer in Canada. The brand includes a wide variety of food, drinks and consumer products. The popularity of President's Choice PB in Canada has resulted in a strong private brands becoming the market share leader in some categories so creating store loyalty through their exclusive distribution. The exclusive distribution characteristics of PB also means a consumer cannot directly compare the prices of the private brands with other retailers, so it is useful for retailers to reduce the price competition among stores.

Research by Corstjens and Lal (2000) has demonstrated analytically and empirically that premium quality private brands play a role in store loyalty by increasing customers' switching costs between stores. They further announced that it is the high-/acceptable-quality PB that opens up the possibility of differentiation, store loyalty, and profitability. This greater loyalty creates profitability for private brands even without the traditional assumption of higher margins. Since the availability of private brands is not present elsewhere, a successful PB introduction can help a retailer to facilitate customer loyalty (e.g. Selnes, 1993; Omar, 1995; Winningham, 1999; Dick et al., 1997; Labeaga et al., 2007).

2.2.4 Findings and Conclusion

Though private labels, private brands and extended private brands are all controlled and sold by a specific retailer, there still exists some difference among these brands. Based on the discussion above, this research summarized the distinction and definition between private label and private brand in Table 2.3 below. According to Laaksonen and Reynolds' (1994) typology of retail brands, private label can be defined as a "Quasi-brand" that has little or no difference among different stores. For example, consumers might find it very difficult to identify the difference between Carrefour's private label 'No.1' and RT-Mart's private label '大拇指' since they both offer low quality and lowest price. Another reason that private labels cannot make a difference among stores is that since most suppliers of a private label are national manufactures; they might offer standardized products with different labels for different retailers.

Table 2.3 Distinction and definition between private label and private brand

	Definition	Critical Issues	Research	Examples
Private Label	Has little or no difference among different stores; Lowest price	How to reduce perceive risk for consumers How to use PL to enhance retailers' profits	e.g. Hoch and Banerji (1993); Connor and Peterson (1992)	'N0.1' (Carrefour), '大拇指' (RT-Mart)
Private Brand	Has some or significant difference among different stores; Close to leading brands	How to use PB to create store difference How to use PB to create store loyalty	e.g. Richardson et al. (1994); Collins-Dodd and Lindley (2003)	Carrefour (Carrefour), Tesco

As for the private brand, according to Laaksonen and Reynolds' (1994) typology of retail brands, it offers some characteristics for the retailer to

differ from other competitors. Specifically, because the third and fourth generation PB help retailer to build a strong store image among consumers and transfer 'Value' for their customers, private brands offer retailers more chance to build store difference and store loyalty. That means when we discuss the third and fourth generation PB products, it is important to notice the following issues.

1. Private labels are different from private brands. While private labels provide a retailer only the price advantage, private brands help a retailer to build store differences, but not private labels. In other words, consumers might treat different retailers' private labels alike while treat different retailers' private brands differently. Therefore, some previous research that was designed for private label might be different from the other research that was designed for PB. For example, Omar (1996) used five different stores' (Sainsburys, Tesco, Safeway, Asda and Kwik-Save) own label products and hypothesized those private label buyers sharing the same characteristics. This hypothesis might not be appropriate for the future research that focuses on the PB products. The store's PB should be treated as different, individual brands that have their-own missions.
2. Private brand products help a retailer to transfer specific value to consumers, so consumers might perceive different value being offered by different retailers. Since different stores offer different value for their consumers, the relationships between consumer's perception variables and purchase intention might vary by retailer. For example, when a consumer has a high intention to buy 7-11's PB products because of good perception of quality, it does not follow that the same customer will perceive the same kind of value from Carrefour's PB. Therefore, data collected in one retailer might need to be retested in another to make sure of the generalization of their finding.

Otherwise, since retailers can deliver different value to their customers, they can use PB to satisfy a specific group of consumers. As mentioned

above, some retailers have used the PB strategically to launch initiatives championing “new” consumer values such as healthy eating, animal welfare and environmental issues. The consumers might perceive more and more complex forms of PB. The future research, therefore, has to explore more variables besides price and quality issues that had been mentioned many times in previous studies.

3. Private brands help retailers to build their unique store image among consumers. In other words, consumers might have different PB attitude among retailers. For instance, while store A sold its PB products with high quality and high price for example Marks and Spencer, store B might sell its own brand products with medium quality and price, for example Tesco. Therefore, consumers might have different PB attitude between store A and store B since they are various in price, quality and other product characteristics.
4. Though the price gap can be only 10 percent or less between PB and leading brand, low-price advantage still can help a retailer to build and maintain a competitive advantage over other competitors. In other words, price related variables such as price consciousness might still be important when we discuss the PB issues since the price saving of PB is still a critical reason for some consumers to select PB products.

In conclusion, this research focuses on private brands as the research subject and excludes private label and generics since private brands offer more value for both consumers and retailers. Specifically, PB helps retailers to build store difference, store loyalty, store image and transfer specific value for their consumers. Thus, private brands can be treated as a mechanism that retailers use to discriminate between different types of consumers (Soberman and Parker, 2006). When this research decided to focus on PB products, several critical issues have to be addressed. Firstly, it is important to notice that each retailer’s PB might have their own characteristics and attract different types of customers. Secondly, the relationships between consumer’s perception and behaviour variable might vary among retailers

since different retailers offer different value for their clients. Finally, the perception of price is still important for studying PB even when the price gap is smaller.

2.3 The Background of Private Brand Development in Taiwan

This section discusses the background of PB development in Taiwan. The intensive competition among retailers provides the researcher with an opportunity to understand how retailers used PB to build store difference and loyalty in a short period of time. Carrefour and 7-11 are two successful retailers in Taiwan and operate their own brand products more successfully than other retailers. This section first provides an overview of the historic background of PB development in Taiwan and then discusses how these two firms operated PB successfully.

2.3.1 Retailing Industry Development in Taiwan

2.3.1.1 Why the Taiwanese Retail Market Is Important

Undoubtedly, Taiwan is one of the few markets in the world which attracted retailers from all over the globe. According to the report of the World Bank², Taiwan ranked 21st in the world in terms of its per capita GDP last year, measured by purchasing power parity (PPP) at US\$ 30,084 in 2006. Drawing by the potential of the market and stimulated by the success of early entered retailer (i.e. Dutch retailer Makro), many international retailing groups such as Carrefour, Tesco, Costco, Casino (Géant), Auchan (cooperated with RT-Mart in 2001), 7-11, Family-Mart, Welcome and so on all entered the Taiwanese grocery retailing market.

Because of the contribution of these international retailers, Taiwan has the highest convenience store density in the world (one store per 2800 people; ACNielsen, 2005) and second highest hypermarket density in Asia (one store per 210 thousand people; ACNielsen, 2006). These developments

² Resource: Taipei Times 2007/09/11

support the view that Taiwan is one of the most competitive markets in the world. Keen competition among these international retailers makes the Taiwanese grocery retailing market a compelling space in which to study, analyze, and predict the future of these foreign retailers' PB growth and success.

Taiwan is also one of the few markets in the world that has special cultural background and geographic location. Taiwan, located in the edge of Pacific Ocean (see Figure 2.3), has been colonised by several countries such as China, Spain, the Netherlands and Japan. Many Chinese people emigrated from China to Taiwan because of a civil war in 1949. Therefore, Taiwanese people adopted various aspects of Chinese culture including Confucianism and Buddhism.

Figure 2.3 East Asia map



More importantly, Taiwan is a true democracy country that allows international retailers to invest with low political and economical risk. Though mainland China is one of the most attractive markets for international retailers, it has heavy regulation to limit the establishment of retail channels and not opened up to foreign investors until 1992 (Lin and Chang, 2003). These specific historical backgrounds make Taiwan like a bridge between Eastern and Western countries and consequently many

successful retailers such as 7-11, Auchan (RT-Mart), Carrefour and Makro have selected Taiwan as a way to enter Mainland China.

More specifically, a number of international retailers entered Taiwan before Mainland China, for example, in December 1989, Makro, the Dutch retailer, opened its first store in Taoyuan County and introduced its own PB 'ARO', and then entering Mainland China in 1996. Another example is the Carrefour; it also opened its first store in Kaohsiung in 1989 and then entering Mainland China in 1995. In short, Taiwan is a small but very international market and this gives us a chance to observe the pan-Chinese markets in microcosm.

In addition, as mentioned before, the short PB develop history makes Taiwanese consumers have relatively little experience in PB products. This situation has advantage. Researchers have more chance to observe the developing process of PB and to identify how PB grows in the new market. Also, for some international retailers such as 7-11 or Carrefour, they have more chance to use their own brand products to build customer loyalty and maintain original brand image or create different brand image through PB products. Therefore, there are many reasons that make the Taiwanese retail market an important and unique research subject.

2.3.1.2 Background of Taiwanese Retailing Markets

The development of PB in Asian countries is fall behind most Western countries because of cultural condition. There was almost no present of PB in Taiwan until 7-11 introduced its PB into its ranges in 1979. The traditional Chinese retailers only play the role of distributor and rarely sell products under their trademarks. Traditionally, Chinese culture tends to respect the producers and/or manufactures such as farmers and workers and constrain businessmen and/or retailers. In the past, Chinese people regard the profit from the distribution as exploiting the profit from the farmer or labour. Retailers and vendors have less social status and the money they earned sometime might be treated as immoral income. Therefore, the

development of modern retailing industry such as supermarket, hypermarket, and convenient store in Asia countries is very slow and falls behind the Western countries.

In Chinese societies including Taiwan, a traditional market, like the large farmers market, that contains dozens of vendors selling fresh meats, vegetables and other foods is the most popular place where consumers can buy almost everything they needed. Taiwanese consumers are used to negotiating with each vendor and get some trade deals from the seller. On the one hand, these smaller vendors have less ability to control the supply chain - an important requirement for launching PB products, and on the other hand, these smaller retailers always sell unbranded, loose and unpackaged foods to their customers. Therefore, most Taiwanese consumers were not familiar with PB products before international retailers introduced their own brand products.

In the past ten years, however, the number of convenience stores and hypermarkets has increased dramatically and these new retailing formations have dominated the Taiwanese retail market. Table 2.4 shows that these new retailing formations have high market share in sales and outperform traditional markets in recent years. According to the Taiwanese government's report, the traditional supermarkets had total sales of \$US 2,660 million dollars while the hypermarkets produced \$US 4,366 million in 2004.

Table 2.4 The market share and turnover of different retailing types in Taiwan

Rank	Store Type	Turnover (\$US million dollars)	Percentage of retailing type marker share
1	Convenience Store	5,118	34%
2	Hypermarket	4,366	30%
3	Traditional Market	2,660	18%
4	Supermarket	2,660	18%

Resource: The report of Shopping Centre Development Council, Taiwan, 2004

Besides, according to AC Nielson³, Taiwanese consumers purchase about 50% of their daily food from the hypermarkets and 20% from the convenience stores. In general, traditional markets and supermarkets account for around 18 percentage of retailing type marker share. The hypermarket is now the most popular mode of food retailing industry in Taiwan. All these have to attribute to the contribution from the international retailers such as Carrefour, RT-mart and 7-11.

2.3.1.3 Development of International Retailers in Taiwan

Drawing by the strong purchasing capability of Taiwanese consumers and stimulated by the success of early retailers such as Makro and Carrefour, other multinational retailing groups such as Tesco, Costco, Casino (Géant) and Auchan (cooperated with RT-Mart in 2001) and so on all entered Taiwanese retailing market. Most of them entered the Taiwanese market by established joint ventures with local retailers or manufacturers. The years and entry model for these international retailers can be seen in Table 2.5 below.

Table 2.5 Years and entry model for international retailers

	Country of origins	Entry mode	Years entering and withdrawing Taiwan
7-11	(United States) Japan	Taiwan, American venture	1979 joint 1991 Japanese firm “Ito Yokado” bought 7-11 from American firm “The Southland Corporation”
Family Mart	Japan	Franchise	1988
Makro	Netherland	Taiwan, Netherland Thai	1989 and 2003 withdrew Taiwan joint

³ <http://www.acnielsen.com.tw/site/index.shtml>

		venture	
Carrefour	French	Taiwan	and 1989
		French	joint
		venture	
Costco	United States		1995
Géant	French	Taiwan	and 1999
(Casino)		French	joint 2006 Casino sold whole share
		venture	to Far Eastern Ai Mai
			Company
RT-Mart	French	Taiwan	and Established in 1996
(Auchan)		French	joint 2001 sold 2/3 share for Auchan
		venture	
Tesco	United		2000
	Kingdom		2007 withdrew Taiwan

According to the annual report of Taiwan Chain Stores and Franchise Association (TCSFA)⁴, Carrefour, RT-Mart and Géant (Casino) are the top three retailers in Taiwan and all operate hypermarket format and offer their own brand products. Table 2.6 shows the hypermarket and convenience store numbers in Taiwan. Carrefour and 7-11 controlled almost half of retailing market sales in Taiwan and they both have operated their own private brand products.

In detail, Carrefour, the largest grocery retailer, operated 48 stores and had a sales volume of \$US 2,187.5 million in 2007. RT-Mart, the second largest grocery retailer, owns 24 stores and Casino (Géant) has 14 stores. As for convenience store, the President Corporation, the largest food manufacturer in Taiwan, and the American retailer, The Southland Corporation, established the first 7-11 convenient store, in May 1979 and introduced its first PB products. This retailer now dominates the sector with 4,385 stores and owns 49% of the convenience stores in Taiwan (Chang and Dawson, 2007).

⁴ <http://www.tcfa.org.tw/>

Table 2.6 Hypermarket and convenience store numbers in Taiwan

Rank	Hypermarket	Store Numbers	Convenience Store	Store Numbers
1	Carrefour	48	7-11	4,385
2	RT-Market (Auchan)	24	Family-Mart	2,012
3	Géant (Casino)	14	Hi-Life	1,260
4	Costco/TESCO*	4	OK	839

Resource: News paper, 2007/9/1.

Notice: 1. Tesco withdrew from Taiwan in June 2007. 2. Casino sold whole share to Far Eastern Ai Mai Company in 2006 and Géant changed name into Ai Mai

Interestingly, all these retailers are joint venture retailers (see Table 2.5). Joint venture offers these retailers a better chance to gain better quality PB products from their joint venture partners. For examples, Carrefour and 7-11's joint venture partner is the President Corporation, the largest food manufacturer in Taiwan. The joint venture relationship might help for building more enduring and closer partnership between retailer and PB supplier (Collins and Burt, 2006) and results in retailers can get better quality PB products from its joint venture partners.

However, not all international retailers have been successful in the highly competitive Taiwanese market. Makro withdrew from the Taiwanese market in 2003 and China in 2008, selling 51% of stock share to a Korean retailer in 2008. Though Makro enjoyed a first-mover advantage, Carrefour and Auchan (RT-Mart) were able to gain market share by offering better service and trade deals for their Taiwanese and Chinese customers. Otherwise, British retailer Tesco withdrew from Taiwan in 2007 by exchange stores with Carrefour in Eastern Europe. In fact, though Tesco operated well and earned profits in Taiwan, its growth potential was limited by the competitive actions of its main competitor, Carrefour that operated 48 stores in Taiwan.

Because most successful retailers in Taiwan such as Carrefour, Géant, 7-11 and Tesco are all joint venture firms with international retailers (see Table

2.5), their partners have experience in producing PB products in their home markets and in promoting their own PB products to keep their competitive advantages. However, when they entered an unfamiliar market with different economic conditions and cultural background, they have to rebuild their competitive advantages by localization. Specifically, they needed to understand the local consumers' purchasing habits and adapt to the local market conditions. For example, in view of Taiwanese consumer used to buying fresh vegetable "live" fish or frogs and "hot" food, Carrefour has introduced unlabelled fresh vegetables and freshly made sausage and hot dinner dishes.

Besides, all these international retailers attempt to differentiate themselves from other competitors in ways other than simply lower the price. These efforts include offering special discounts for club cardholders, creating a comfortable shopping environment, adding entertainment components and offering quality PB products. Among these efforts, offering quality and distinctive PB products not only enhances the store profitability but also differentiates the store from other competitors (Corstjens and Lal, 2000; Baltas and Argouslidis, 2007).

2.3.2 Private Brand Development in Taiwan

Figure 2.4 shows the evolution of PB in Taiwan. Generally speaking, there are four phases of PB development in Taiwan. In contrast to the long and well development of PB in the US and other European countries, PB products were not introduced to Taiwan until three decades ago. 7-11 was the first retailer to introduce its PB in Taiwan in 1979. As the 7-11 grew, Carrefour, Tesco and so on followed with their private brands. Because of the short development history of PB in Taiwan, PB accounted for approximately 10% of sales overall in the supermarket as well as convenience store chains⁵ in 2007.

The first phase of PB in Taiwan can be traced to the foreign retailers

⁵ <http://www.libertytimes.com.tw/2008/new/apr/2/today-e21.htm>

entering the market. These international retailers brought PB products that were sold in their home county. For instance, when Tesco entered the Taiwanese market, it provided lots of Tesco's PB products that sold well in the UK such as British black tea and black beer. These PB products also sold well in the UK. Similarly, Carrefour offers imported PB products that even have French label on the packaging. For many Taiwanese consumers, these imported PB products are very novel and exotic products because some food such as canned pickle, powder instant soup and pasta source were not so popular in that time.

These imported PB products offer retailers some advantages in the beginning stage. On one hand, these imported PB products can not be bought at any other stores, so it offers difference advantage from other competitors. On the other hand, retailers can save cost in introducing existed PB products for their 'new' customers. For these foreign retailers, exporting those PB is to digest excess inventory in their home country. If Taiwanese consumers could accept those PB products, it is very helpful for these retailers to cost down because of the economics of scale.

Figure 2.4 Evolution of PB in Taiwan



As the retailers became more familiar with the market, they began to introduce the cheap private label products produced from local manufactures. As mentioned above, these cheap private labels have no or few differences from other brands (Wileman and Jary, 1997) since generally they have a lower quality and inferior image compared to the manufacturers' brands. In this stage, usually, the retailers' local joint venture partners are also the manufacturers of their PB products. For example, as mentioned earlier, the President Corporation helped its joint venture partner Carrefour to produce its PB products.

These cheap private label products are offering products already established in the Taiwanese market, especially prominent in 'everyday' categories such as noodles, green tea and rice. Introducing these private labels, retailers can operate product differentiation based on the price advantage. For example, one of the notable business level strategies used by Carrefour to differentiate themselves from competitors is its EDLP (Every Day Low Price) policy. In 1998 Carrefour in Taiwan offered "First Price" products to consumers with lower price and in 2000, Carrefour announced the EDLP policy and changed its own brand to "Yes" around the world. In this stage, Carrefour in Taiwan used a written Chinese character "讚" instead of "Yes" to attract the price sensitive consumers and offered 200 different products including packaging beverage, frozen food, canned food, cleanser and groceries. In 2004, it offered "No.1" instead of "讚" brand to consumers with alternative lowest price products. "First Price", "讚", "Yes", "No.1" are all Carrefour's private labels.

Compared to the complex and various brands strategies for Carrefour, other grocery retailers in Taiwan tend to simplify their own brand strategies. For instance, the French joint venture retailer, Géant, offers "Price Leader" product to attract price sensitive consumers. Other hypermarkets such as RT-Mart also offers its own label "大姆指" products and owns 10 percent

market share in 2006⁶. These “made in Taiwan” PB products help retailers to increase product turnover and sales profitability. Because usually these local produced PB products are offered in lower price and simple package.

In addition, it is interesting to notice that the name of all these cheap private labels has no correlation with the retailers’ name. Retailers tried to build a very significant image for their customers that these private labels are cheap and good. But in this stage, though these simple packaged cheap PB products satisfy the basic need for consumers, retailers cannot use them to build store or brand loyalty because of lacking differences. Other competitors can offer similar products with lower price to attract consumers.

Therefore, as the competition among retailers increases, the requirement for retailers to build store loyalty and/or store difference increases. Now most major grocery retailers in the Taiwan such as Carrefour, RT-Mart and 7-11 all offer better quality private brands to substitute for cheap private labels. More specifically, in phase , retailers started to offer sub quality private brands with their name on it. For example, in some categories, RT-Mart offers its own RT-Mart brand products to replace its own label “大姆指”.

Furthermore, in phase , while some retailers only introduce one PB, others introduce different tiers of PB products. For example, Carrefour in Taiwan now offers three tiers of PB products including low-price ‘Carrefour Value’, medium-price standard quality ‘Carrefour’ and higher price ‘Carrefour Premium’. To offer these segmented PB products retailers have to build a long-term relationship with local cooperated manufacturers.

More specifically, in phase , the quality of private brands improves dramatically because retailers start to invest in product design and quality control. And all these activities must base on retailers’ effort to build close long-term relationships with local manufacturers. In the meantime, some international retailers import specific PB products from other Asian countries. It is usually true that international retailers can distribute their

⁶ Report from Taiwan Food GMP Development Association, <http://www.gmp.org.tw/>

products via their global sourcing systems. As their experience of the Asian market increases, they can export their PB to other Asian countries. For example, Carrefour has invested in South Korea, Malaysia, Thailand and other Asian countries in the past thirty years and has accumulated lots of valuable long-term relationships with other countries' local manufacturers. These relationships cause Carrefour has ability to import PB products from other countries. Although Carrefour withdrew from South Korea in June 2006 and was frustrated in Japan, Taiwanese consumers still can buy Korean and Japanese PB products such as Korean Kimchi, cappuccino instant coffee and Japanese green tea. All these PB products were produced from their cooperative Korean or Japanese manufacturers.

These imported PB products offer retailers a second chance to differ themselves from other competitors. However, it is important to notice that Taiwanese society is labelled as a high collectivism culture (Hofstede, 1983). Consumers in a collectivism culture are less likely to exhibit preference toward other country's production than in an individualism culture. On the one hand, the country of original effects might deter Taiwanese consumers' willingness to buy other Asian countries' PB products because of collectivism cultures. On the other hand, however, these imported PB products offer Taiwanese consumers an alternative for better quality and lower price brand.

In phase , as private brands evolve with more innovation, design and marketing, many retailers have started to develop special interest brands catering for specific customer segments. Depending on the ranges concerned, sub-brands have either been used or totally new fantasy labels introduced.

The process of sub-branding strategy depends on retailers' marketing capability since it needs a serious of advertising and promotion to support the strategy. Traditionally retailers have no advantage in operating marketing tools such as branding and advertising because these activities cost too much. Besides, sub-branding strategy requires the retailer to

promote all brands in each category whilst there are hundreds of categories in a store. Therefore, retailers have less ability to moderate and to promote many sub-brands in a store.

However, as the retailers accumulate enough experience in their PB, they can play sub-branding strategy well. This phenomenon is especially evidenced in 7-11. For example, now, 7-11 offers various own brands such as “Big-Cup”, “原味覺醒” and “Fancylake lunch box”. All these private brands still keep the logo of 7-11 on the package but they are advertised and promoted as different brands. In order to add variety, 7-11 invested lots of money in marketing research, and eighty percent of products are designed by the 7-11. These PB are then produced by the cooperating manufactures. Now 7-11 even has a specific web site to promote its own brand products⁷.

2.3.3 What Might Be the Future of PB in Taiwan?

The fifth phase of PB development in Taiwan might be the extension of retail brand names into product and service markets beyond the core product. Particularly financial services such as personal loans, life insurance, travel insurance, foreign currency services and even mortgages might be showing in Taiwanese retailing soon because one characteristics of retailing is huge cash flow. Retailers receive huge cash from consumers and offering financial services to their customers might be a good way to locate these cash.

As mentioned earlier, Burt (2000) argued that the development of PB in the UK has a move from price to non-price competition. The same situation might be happened very soon in Taiwan. In fact, some European retailers have been offering financial services for a number of years. For example, in the UK, Tesco extends its brand name into various financial products such as travel insurance, car insurance, and loans. Consumers can pick up a Tesco insurance package in the store and pay the money with other Tesco brand products. Another British retailer, Marks & Spencer even offers

⁷ <http://www.7-11.com.tw/7design/index.asp>

exchange for foreign currency services in the store.

Moreover, someday Taiwanese consumers might see that all products in the store are the retailer's PB products. One of the most famous and successful examples is the British retailer, Marks & Spencer, which used to offer one hundred percent PB strategy has been very successful in the British retailing sector and they, however, may be revising their strategy recently. It is important to notice that one hundred percent PB strategy needs not only the long term relationships with local manufactures but consumers. In the short run, it is still very difficult to expect either 7-11 or Carrefour has ability to offer one hundred percent PB strategy in Taiwan.

Meanwhile, in the future, consumers might treat some successful private brands as other national brands. This means that someday some retailers' PB products might be so popular that consumers could buy them in other retailers' stores. Notably in North America where Loblaw's Presidents Choice brand has been sold in stores belonging to other companies for some time (Burt, 2000).

2.4 Findings and Conclusion

This chapter has reviewed the past, now and the future of retailer brands in the Taiwanese grocery market. The findings suggested that though the development of PB in Taiwan is still some way behind some Western countries such as the UK or the US that has long history of PB development, these international retailers in Taiwan operated their PB strategically. These practical experiences can be applied to other Asian countries such as China. In fact, as mentioned above, a number of international retailers such as Tesco, Macro, RT-Mart and Carrefour all entered Taiwan before Mainland China and other Asian countries. All these evidence verifies that Taiwan is an excellent research target of PB.

The evolutionary sequence of PB development in Taiwanese grocery retailing shows some interesting findings. Generally speaking, the evolution

process of PB consists with previous research findings. Retailers' own brands are moving from low-price/low-quality private labels to the high-price/high-quality private brands. However, this research also found that some foreign retailers in Taiwan generated specific PB strategy and experience. Therefore, retailer managers should identify the strategic position of their PB development. Similarly, for academic researcher, if they tried to do PB relative research, they should identify the strategic position of their PB development and the characteristics of PB in that stage.

This chapter also has shown some possible developments of PB in Taiwan. Undoubtedly, the development of PB in Taiwan will be more mature than before and the situation of brand extension of PB will become more common. However, retailer managers should still keep in mind that what is the core value for their PB and what is the extend brand differ from the core value? For the academic researcher, the topic of what factors determine the success or failure in PB extension should be an interesting topic.

Finally, Carrefour and 7-11 are two of the most successful retailers that have high markets shares in Taiwan. They drive the development of PB in Taiwan and more importantly, they both operate their own brand products more successful than other competitors. Therefore, this research selected Carrefour and 7-11 as the research objects. In the next chapter, this research will review literature related to consumer characteristics and PB purchase behaviours.

Chapter 3 Literature Review and Research Hypotheses

3.1 Chapter Overview

In the last chapter, this thesis has demonstrated that although there is no universally accepted terminology used for the classification of the private brand (PB), generally speaking, there are four generations of PB and each generation has specific characteristics (Laaksonen and Reynolds, 1994). No matter in which generation, the traditional assumption in the literature to date is that the consumer group that buy private brands are different from the group that do not buy them (Whelan and Davies, 2006). Simultaneously previous research has revealed that PB consumers are different from national brand consumers in many ways (Rao, 1969).

Some prior research suggested that price saving might be the most important factor affects the consumers' attitude and purchase behaviour toward PB (e.g. Sinha and Bata, 1999). But as the retailers' market power has increased and technology of produce PB has improved, they have ability to offer more values such as premium or novel PB products to their customers. Therefore, this hypothesis should be reviewed because of the improvement of the PB products and a more organized framework is needed because consumers' perception of PB might be changed dramatically.

This chapter first reviews the literature concerned with consumer characteristics and PB purchase behaviour. After a review of literature, three research patterns of consumer factors correlated with PB attitude and purchase are proposed. These concepts include the socio-economics factors (e.g. income and education level), personal factor (i.e. consumer innovativeness) and perceptual factors (e.g. perceived PB quality and price consciousness). The chapter then discusses these concepts separately and research hypotheses are proposed followed the discussion.

3.2 Consumer Profiles Correlates with PB Purchase Behaviour

A review of the literature reveals that various studies try to analyse what variables correlate with PB purchase behaviours most. All these variables can be classified as socio-economic, personal and perceptual variables. Further discussion can be seen as follows.

3.2.1 Socio-economic

This section discusses how socio-economic variables have been applied in the study of PB purchase behaviour, and how previous studies complement each other. Some discussion on how socio-economic variables contributed to the understanding of PB purchase is given. Finally, some hypotheses are proposed based on the discussion.

3.2.1.1 Overview of Socio-economic Variables

Socio-economic variables have been the most frequently studied issue in relation to consumers prone to purchase PB products. Socio-economic variables included objective and subjective demographic indicators. Objective demographic indicators are more linked to external objective factors such as age, income, family size, occupation, and education level. Subjective perceptual indicators are more related to internal subjective factors such as social position and/or aspiration.

Both objective and subjective demographic indicators have been discussed in various studies and most results indicate that it is difficult to use only socio-economic variables to distinguish PB and non-private brand consumers. For example, Frank and Boyd (1965), in an early study, found little evidence that PB buyers were better educated, older, and had lower incomes than national brand buyers. They concluded that PB and non-private brand consumers are essentially indistinguishable with respect to such demographic measures.

Likewise, Myers (1967) found very little predictive power for general personal variables and socio-economic factors in attempting to predict PB attitude. He concluded that housewives showed a greater acceptance of PB than working women. One possible explanation for this may be that the working woman had little time to concern with brand differences. Another possible reason may be that the working woman had more disposable income, so there was less need to be price-conscious. Szymanski and Busch (1987) reached similar conclusions about the poor performance of individual demographic and psychographic factors relative to the role of consumer perceptions regarding product qualities and price.

Subjective perceptual indicators of social position or aspiration were also discussed in the previous research. These subjective perceptual indicators include social class perception and satisfaction with general living conditions or occupation (Murphy, 1978; Myers, 1967). Baltas (2003) collected data in the UK from 10,756 panellists and concluded that age, family size, and full-time employment were not significantly correlated with PB proneness. Baltas and Argouslidis (2007) collected data from 700 telephone interviews in Greece and demonstrated the changing image of PB, the endorsement of such products by consumers of higher socio-economic status. PB consumers mainly have higher education and higher income. The effects of education, income, and family size challenged the old stereotypes that continue to shape perceptions of the PB clientele.

Though it is certainly easier to form market segments based on demographic and socio-economic variables, such variables have not added much to the understanding of the psychology of consumer choice processes. Socio-economic variables have been proved not to be strong predictors of differences in PB attitude or purchase because the unstable results. Timing, location, survey target, different product categories and generation of PB all affect the results seriously. Earlier research, for instance, in 1965, Frank and Boyd used data collected from 491 households in the US and found some evidence that PB buyers were better educated, older, and had lower incomes than national brand buyers. However, Myers (1967) researched 347 females

in the US and found PB buyers were less educated and income has no effect on PB purchase.

In 1996, Omar got his results from 1,360 shoppers in the UK and concluded that own label shoppers were slightly less formal education, young, likely to be a female between 18 to 24 years of age, and had at least one to two children living at home. And the PB shoppers tended to: have a larger family; have a larger household; be more adventurous; and live mainly in rented accommodation. Dick et al., (1995) collected the data from 1,353 shoppers in the US and found the same results that PB buyers were younger age and had a larger family size. Unlike Frank and Boyd's (1965) result, they found that the relationship between annual family income and PB proneness was curvilinear. Their result indicated that younger, unmarried, and smaller sized households tended to avoid purchasing PB products and households which earn below \$15,000 or above \$49,999 were less likely to buy PB than were "middle" income families.

The same curvilinear relationships can also be found in the Sethuraman and Cole's research (1999). Investigating 140 households in the US, they found that older, male and middle-income consumers were more PB prone. Other demographic variables, including age, income and gender, appear to be next most important, accounting for about 5 percent of the variation.

Finally, Liu and Wang (2008) used the data comprised 328 undergraduate night school students at a college in Taiwan to test the correlation between demographic variables and private label purchase intention as well as promoted brand purchase intention. As expected, their results showed that the sexual, age and education level had no effect on private label attitude since the student samples offered very few variances in demographics. However, their research results still indicated that the lower income consumers were more likely than others to had more positive private label attitude. In terms of promoted brand purchase intention, whilst the trend was the same, it was not statistically significant.

Though the literature is rather inconclusive regarding the overall importance of consumer socio-economic factors, and occasionally provides conflicting evidence regarding the impact of individual characteristics, socio-economic variables offer an easy, quick and clear way to form market segments. Perhaps the reasons can be the bulk of existing studies are based on the data collected from different economics, social and marketing conditions from each other. Therefore, it is necessary to consider various factors such as cultural difference, market maturity and the different PB generations.

More importantly, most early studies assumed that all PB are homogeneous and ignored the differences among different retailers' PB. However, now food retailers are using various marketing tools to affect consumers' perceptions of their own brand products. The consumer group that buy one retailer's PB might be different from the group that buy another retailer's PB. Therefore, this paper goes further than differentiating between PB buyers and non-PB buyers to examine whether different segments exist for two different retailers' (i.e. Carrefour and 7-11) private brands.

3.2.1.2 Discussion on the Effects of Socio-economic Variables

After reviewing the literature, it is clear that some recent research has found differences between the demographic characteristics of consumers who purchase private brands and those who do not (e.g. Omar, 1992) while others has found contradictory evidence that PB purchasers are spread across all socio-economic groups (e.g. Burger and Schott, 1972). This research argues that though the literature reveals that the effect of socio-economic variables is mixed and weak, socio-economic variables still play an important role in separating PB buyers from non-PB buyers.

More importantly, it is surprising that few previous researchers have explored the impact of socio-economic variables on PB purchase in Asia markets. Most research has been done in either the UK or the US and it seems necessary to take a look at this topic outside Western countries, particularly given the expansion in PB within these markets (see Chapter 2).

A further examination of the impact of socio-economic variables on PB purchase intention may reveal whether relationships have different effects in different cultures. Thus this research tested the effects of four socio-economic variables: (1) income, (2) education, (3) age, and (4) family size.

Age. Age is a very complex and general factor for identifying whom are the PB buyers since it represents not only the physical condition but also the psychological condition. The literature suggested both positive and negative relationships (see Table 2.2). While some previous studies tended to suggest that PB products are more widely used by young consumers (e.g. Cunningham et al., 1982; Omar, 1996; Dick et al., 1995), others suggest that older consumers buy more PB products (e.g. Hoch, 1996; Sethuraman and Cole, 1999; Ailawadi et al., 2001). More recent studies have found no significant relationship between age and private brand proneness (e.g. Baltas and Argouslidis, 2007; Liu and Wang, 2008; Martinez and Montaner, 2008). This thesis tends to hypothesize that there is no relationship between age and private brand proneness since both young and old consumers might purchase PB products for different reasons.

Table 3.1 An overview of prior research in socio-economic factors

	Research Subject	Age	Education	Family size	Income	Social class	Sample size and country	Original Journal
Frank and Boyd (1965)	PB	+	+	+	-		491 households in the US	Advertising Research
Myers (1967)	PB		-		NS	+	347 female in the US	Journal of Marketing Research
Coe (1971)	PB				+		100 consumers in the US	Journal of Retailing
Rothe and Lamont (1973)	PB	NS	-	NS	-		1400 shoppers in the US	Journal of Retailing
Murphy (1978)	PB					+	309 female in the US	Journal of Retailing
Cunningham et al. (1982)	PB & Generic	-	+		NS		637 telephone respondents in the US	Journal of Advertising Research
Dick et al. (1995)	PB	-		+	Curvilinear		1,353 shoppers in the US	Journal of Product & Brand Management
Hoch (1996)	PL	+	+	+	-		Store-level scanner data in the US	Sloan Management Review
Omar (1996)	PL	-	-	+	NS		1,360 shoppers in the UK	The Service Industries Journal

	Research Subject	Age	Education	Family size	Income	Social class	Sample size and country	Original Journal
Richardson et al. (1996)	PB	NS	NS	+	-		582 shoppers in the US	Journal of Retailing
Sethuraman and Cole (1999)	PB	+	NS	NS	Curvilinear		140 households in the US	Journal of Product & Brand Management
Ailawadi et al. (2001)	PB	+*	+*	+*	- *		319 shoppers in the US	Journal of Marketing
Baltas (2003)	PB	NS		NS		+	10,756 panellists in the UK	European Journal of Marketing
Baltas and Argouslidis (2007)	PB	NS	+	NS	+	+	700 telephone interviews in Greece	International Journal of Retail & Distribution Management
Liu and Wang (2008)	PL	NS	NS		-		328 students in Taiwan	Journal of Marketing Management
Martinez and Montaner (2008)	PB	NS	-		NS		425 consumers in Spain	International Journal of Retail & Distribution Management

Note: NS = No Significant; * = Indirectly Effect; (PB) Private brand; (PL) Private Label

On the one hand, old consumers may have more confidence on their own judgement about the quality of food by personal experience than younger consumers. It has been proven that PB products are equal to or even surpassing national brand in quality, while still be offered for low price (Wulf et al., 2005). In many cases, PB products are served with simple package design to offer a cheaper price to consumers, but the plain package design might not reduce consumers' willingness to buy the products if they have more confidence on their own judgement about the quality of food.

In contrast to those experts, young consumers may be more image-oriented than older consumers (Sethuraman and Cole, 1999) and as a result, younger consumers may be willing to pay more for products with fancy packaging or for novel products. Usually, early research will assume these products were manufacturers' brand since some manufacturer brands such as Pepsi or Coca Cola invest billions of dollars in advertising to build elaborate brand image and attract young consumers' attention.

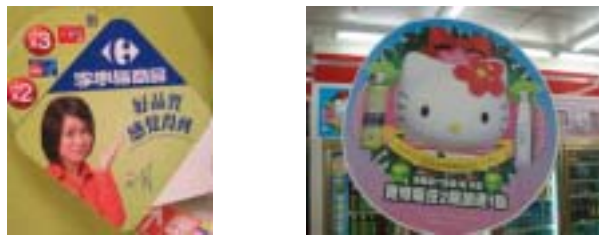
Besides, Cole and Balsubramanian (1993) suggested that brand loyalty increased as people age, because elderly adults tended to search less intensely and less accurately than younger adults. Elderly consumers might have more brand inertia than younger consumers. When they satisfied with specific known brand, it might result in repeated purchase and loyal behaviour. Empirical researches also support this argument. For example, Omar (1996) found that older people (45 years and above) appeared to be much more loyal to national brands; and many of them (69 per cent) would not buy own-label groceries. Also, Dick et al. (1995) showed that older households tended to avoid private brands and the over 65 age group was least likely to buy private brands.

However, as retailers began to invest in the pack design of their own label products, discovering that improvements in packaging design and product quality enabled them to compete directly with manufacturers (Southgate, 1994). When retailers accumulated plenty of experience of producing PB, they might have the ability to offer innovative, well designed PB for specific

groups of consumers. Because now retailers know how to use PB and in-store advertising to build the store image, those image-oriented younger consumers might be attracted by the PB.

In Taiwan, 7-11 uses the popular cartoon doll 'Hello Kitty' to promote their PB bottled green tea (see Picture 3.1). Since the 'Hello Kitty' is a very popular cartoon star for teenager and younger consumers, 7-11 has more chance to sell their PB products to the younger consumers. On the contrary, in Taiwan, Carrefour invites a famous TV anchorwoman as a spokeswoman for their PB products (see Picture 3.1). That helps Carrefour to attract older and experienced consumers to select their PB.

Picture 3.1: Carrefour (Left) and 7-11 (Right) use different idol to promote their PB products



Despite most previous studies on the effect of age on brand selection indicated that older consumers might know more about the real quality of PB than young consumers. Private brands still can attract younger consumers into the store since retailers have the ability to use PB as a tool to build store image. Besides, Liu and Wang (2008) found no evidence to prove the influence of age on private label attitude in Taiwan. Therefore, based on the discussion above, this research postulates that:

H1-1: Consumers' private brands purchase intention is not related to their age, and both older and younger consumers purchase PB.

Education. The literature shows both positive and negative relationships between education and PB purchase intention (see Table 2.2). Though some recent studies found that there was a positive correlation between consumers education level and their PB purchase intention (e.g. Baltas and Argouslidis,

2007), most previous studies found either insignificant or negative correlations. This research tends to hypothesize that less educated consumers might purchase more PB and have higher PB purchase intention than more educated consumers.

On the one hand, less-educated consumers might be more sensitive to price and tend to buy more PB products. Some empirical findings support this argument. For example, Omar (1996) found that the own-label shopper had slightly less formal education than the national brand shopper. Also, Martinez and Montaner (2008) found a negative relationship between Spanish consumers' PB proneness and education: the higher level of studies, the lower PB proneness.

On the other hand, better educated consumers are usually less price-sensitive consumers (Hoch, 1996). This means that they have greater willingness to buy higher price manufacturer brands. Though many studies reported that the real quality of PB was very close to national brands (Wulf et al., 2005; Choi and Coughlan, 2006), these less price-sensitive and higher educated consumers might still like to pay more for the quality difference between PB and manufacturer brands. Richardson et al. (1996) also indicated that education might act as a surrogate measure of income. Other things being equal, more highly educated individuals may possess greater income and thereby enjoy more liberty in brand choice. As a result, national brands may be preferred despite their higher prices.

Though more educated consumers might have more chance to think logically and claim that heavily advertised national brand items are more costly, not due to premium quality, but due to high promotional cost (Coe,1971), there is no strong evidence to support this. In fact, well educated consumers might tend to avoid buying PB because they have greater opportunity costs for time and hence will not spend time looking for good deals (Ailawadi et al., 2001; Sethuraman and Cole, 1999). In view of national brand items have better able to offer good quality and extra value image to better educated consumers, more educated consumers might have

higher willingness to buy national brand products.

In contrast with better educated consumers, less-educated consumers might be easily influenced by the advertising and promotion. As a result, they might buy more national brands with advertising and promotion. Some empirical findings support this argument. For example, Cunningham et al. (1982) found that national brand users were relatively less educated than generic or private brand users. However, as mentioned earlier, modern retailers know how to advertise and promote their own brands and know how to offer designed PB for their consumers. Therefore, less-educated consumers might also be easily influenced by the advertising and promotion from the retailers.

In short, though some studies show positive relationship between education level and PB purchase intention, this research argues that less educated consumers are more sensitive to price and tend to buy more PB products than well-educated consumers. In other words, this research hypothesizes that less educated Taiwanese consumers will tend to buy more PB products than well educated consumers. Based on the discussion above, this research postulates that:

H1-2: Consumers' private brands purchase intention is negatively related to their education level.

Family Size. Family size has a strong influence on private brand proneness. Previous studies have consistently found positive and significant relationship between family size and PB purchase intention (see Table 3.1). Traditionally, Chinese society has larger family size than Western countries. It is still very common to see three or four generations living in the same house in pan-Chinese culture countries such as China, Taiwan and Japan. Therefore, the issue of family size is particularly important in this research since most Taiwanese consumers are living with more family members and previous studies all indicated that there is a positive correlation between family size and the householder's willingness to buy PB products (e.g.

Hoch, 1996; Richardson et al., 1996).

In line with most previous arguments, this research hypothesizes that there is a positive relationship between family size and PB purchase intention. Many previous studies provide strong support for this argument. For example, Hoch (1996) found that trading areas populated by large households were more sensitive toward price and more prone to purchasing private labels. Similar conclusions can also be founded in Sethuraman and Cole's (1999) study.

Financial pressure is the main reason that partially determines the relationship between family size and PB proneness. As Dick et al., (1995) found that a majority of those living in a household with five or more members were likely to buy private brands, because the fixed income had to be divided among a larger number of people and this forced larger families to become more price-sensitive. In other words, regardless of income or education, the greater the size of the family, the higher the financial pressure because fewer resources were available (Richardson et al., 1996). Consequently, it is reasonable to expect that the larger the size of the household, the higher the proportion of the grocery budget devoted to PB rather than national brands.

However, most multinational retailers (e.g. Carrefour, Tesco) have launched competitively priced private brands that are at least equivalent to leading manufacturer brands (Rubio and Yague, 2009). By offering small packaged PB products, PB can attract smaller household's attention. This may explain why two of the recent research results, Baltas (2003) and Baltas and Argouslidis (2007), indicted that family size did not have significant effects on private brand purchase. They concluded that family size could not assist customer targeting anymore.

In short, though some recent studies showed no relationship between family size and PB purchase intention, most previous studies still showed consistently that the larger the households, the more likely they bought PB

products. This research argues that smaller households, such as single or no children households might be motivated to buy national brand products. Based on the discussion above, this research postulates that:

H1-3: Consumers' private brands purchase intention is positively related to their household size.

Income. Income is linked to savings benefits. The purchase of PB rather than national brands results in significant savings to households since the price of PB is usually lower than national brands. At the higher income levels, consumers can afford to buy either national brands or private brands across the grocery basket without considering about their budgets (Dick et al., 1995). As for the lower income consumers, lower priced PB products might be the preferred choice because of their limited budgets. That may also explain the finding of Hoch (1996) that private labels did not perform very well in areas with higher household income level.

Most previous literature shows a negative relationship between income level and PB purchase intention. For example, Richardson et al. (1996) collected 582 samples in the US and found that higher household income resulted in lower PB proneness. They further suggested that for lower income shoppers, they could stretch their grocery budgets by purchasing private brands since the price of PB was usually lower than national brands. Therefore, lower income households have a greater incentive to purchase private brands because of financial pressures (Frank and Boyd, 1965; Richardson et al., 1996). Ailawadi et al. (2001), offered a similar conclusion, their results indicated that the low-income consumers tend to select PB for higher savings benefits.

Psychologically, lower income consumers might regret buying the wanted but expensive products more than higher income consumers. This means that lower income consumers may associate higher performance risk with these expensive national brand products than higher income consumers. Therefore, they might pay a higher premium for national brands but tend to

avoid purchasing them unless they are sure that the expensive national brand products can satisfy their high expectation (Sethuraman and Cole, 1999).

There is little research evidences that lower-income consumers prefer to buy national brands because of brand loyalty or risk avoidance. For example, Coe (1971) asserts that lower income consumers exhibit higher brand loyalty and prefer national brands over private brands. Lower income consumers were afraid to buy brands they knew little or nothing about and relied more on advertising as a source of information. However, since Coe's study is quite old and the results are based on only 100 samples in the US, more empirical research is needed to support the correlation between consumers' income level and their prefer to buy PB products.

Furthermore, as the quality of PB and store reputation increased dramatically in recent years, consumers might no longer treat PB as higher risk than other national brands. Recently, Baltas and Argouslidis (2007) found that Greek consumers with greater income are more prone to buy PB products. They further announced that some multinational supermarket chains (e.g. Carrefour, Delhaize) have launched competitively priced private brands that are at least equivalent to leading manufacturer brands. Since Carrefour is also one of the research objects, it is important for this research to review their finding.

In short, though the literature reveals that consumers in all income level tend to buy PB products (see Table 3.1), this research proposes a negative relationship between income level and PB proneness. Since the price of PB is usually lower than national brands in Taiwan, lower income consumers have more incentive to buy the PB because of their limited budgets. Based on the discussion above, this research postulates that:

H1-4: Consumers' private brands purchase intention is negatively related to their income level.

3.2.2 Personality

After a review and discussion of prior research, it is clear that the impact of socio-economic variables is weak since previous results concerning demographic correlates of PB purchase are somewhat mixed and conflicting. Consumer personality profiles appear to be better predictors of a propensity to buy own brands than demographics (Whelan and Davies, 2006). In fact, recent research (e.g. Ailawadi et al., 2001; Martinez and Montaner, 2008) tends to utilise personal and/or perceptual variables instead of only depending on demographic variables in predicting or explaining PB purchasing behaviours.

This section discusses how personal variables have been applied in the study of PB purchase behaviour, and how previous studies complement each other. Some discussion on how personal variables contributed to the understanding of PB purchase was given. Finally, some hypotheses are proposed based on the discussion.

3.2.2.1 Overview of Personal Variables

The study of personality has a long history in marketing and consumer research since it is very useful in helping marketing managers to build identifiable consumer segments. Personality can be used in a narrow sense to refer to specific aspects of consumer identity such as enthusiasm, sensitiveness, and submissiveness. These personal identities will help understanding consumers' selection of brands. For instance, the early research such as Becherer and Richard (1978) reported that PB buyers show greater levels of independence and rely less on the behavioural norms of others. Myers (1967) used sociable, stable, dominant, enthusiastic, sensitive, tense, radical and self-sufficient as the predictors of PB attitude. He found that PB acceptors showed some tendency to be more enthusiastic, sensitive, and submissive though even the best associations shown, that for enthusiasm, could not be considered a strong predictor of PB attitude.

Subsequent research continued to treat consumer personality as an important factor in PB attitude but focused more on the risk-relative consumer personality. Most studies suppose that private brands are likely to be viewed as more ambiguous or risky than national brands since these low-price products lack a strong brand name that identifies the producer of these products. Factors such as adventurous (Omar, 1996), venturesome (Granzin, 1981), risk averse (Burton et al., 1998), intolerance of ambiguity (Richardson et al., 1996) and innovative (Granzin, 1981; Baltas, 1997; Ailawadi et al., 2001; Jin and Suh, 2005) all showed that the PB buyer was likely a switcher and not a shopper with a stable and PB buyer could get along with uncertain situations or novel products.

Recently, Whelana and Davies (2006) investigated the effects of consumer self-perceptions of their own personalities on own brand purchase behaviour. They found that individuals who were more 'open to experience' reported higher purchases of corporately named products, while individuals who were more 'extrovert' reported higher purchases of national brands. Those reporting higher rates of purchase for own brands with independent names tend to be more 'agreeable' and 'extrovert'.

However, consumer identity factors found little support from these studies. For example, Baltas (1997) used interview data and purchase records from a nationally representative panel of 750 British consumers and showed that there was no significant correlation between consumer innovativeness and PB purchase intention. That means the British consumer propensity to try new products did not have an important influence on the probability of PB purchase. Then he explained the situation that as private brands had become mature, established products with appeal not related to consumer innovation. Ailawadi et al. (2001), likewise, had the same conclusion from the American consumers' surveys.

Though most previous research including Becherer and Richard (1978), Granzin, (1981), Omar (1996), Baltas (1997), and Ailawadi et al. (2001) have consistent findings in considering personal variables are not strong

predictors of PB attitude, these studies have been undertaken in either the UK or the US. Only one recent piece of research found a significant result in Korea that has different cultural background from Western countries. In particular, Jin and Suh (2005) considered personal factors might work differently in Asian society. They collected 168 usable questionnaires across two categories - 87 for food and 81 for home appliance - and found that consumer innovativeness was the strongest factor predicting Korean shoppers' PB attitude and purchase intention in both food and home appliance. They suggested that PB in Korea might still be treated as new, novel brand and attracts consumers with innovative personal identity.

In summary, in view of the conflicting findings from socio-economic studies, many research identified some personal factors might correlate to consumers' PB purchase intention. These personal factors include adventurous, venturesome, risk averse, intolerance of ambiguity, innovative and so on. Among these factors, consumer innovativeness has been proven to be the most important personal variable that influences Korean consumers' PB purchase behaviour. However, there is still a need for this research to examine the impact of consumer innovation on PB purchase behaviours.

3.2.2.2 Discussion on the Effects of Personal Variable

The impact of personality on PB proneness appears to differ by regions. Further examination of the impact of personal variables on PB attitude may reveal whether relationships are consistent with the finding in the Western countries or not. The results of the literature review showed that consumer innovativeness was the most important personal variable. Thus, this research tested the effect of consumer innovativeness as follows.

Consumer Innovativeness. Individuals differ in the manner in which they react to new and different products and brands. Rogers (1983) defined innovativeness in terms of the degree to which a person was earlier in adopting an innovation relative to other members of his or her social system.

It is generally accepted that consumers' innovative predisposition leads to early product adoption (Midgley and Dowling, 1993; Goldsmith et al., 1995; Im et al., 2003). In this research, whether the relationship of consumer innovativeness with PB usage is positive or negative depends on whether a retailer offers innovative PB products in the Taiwanese market or not. Because if a retailer can offer novel PB products, innovative consumers, that treat novel products as good quality, should be more apt to buy its PB product (Ailawadi et al., 2001).

Traditionally, the stereotype of PB in the Western country is that the PB offers little or no innovativeness since it always follows a 'me-too' or 'lookalikes' strategy (Balabanis and Craven, 1997). Many PB retailers have purposely sought to minimize feature differentiation from national brands, by making their packaging, sizes, typeface, and labelling extremely similar to their respective target brands (Choi and Coughlan, 2006). Besides, this stereotype of PB is partly because of long evolution history of PB in the Western retailing industry (see Chapter 2). In the early stages, generics and cheap private brands required little or no investment by retailers to introduce PB products because they were only duplicates of other national brand items but with a lower price. Thus, these generics and cheap private brands usually lack of innovation.

However, some multinational retailers do offer innovative PB products in Taiwan. For example, Carrefour has accumulated executive experience of operating private brands in European countries and it has been successful in increasing PB market share through dramatic improvements in package design, labelling, advertising, and branding strategies. It has the ability to design and offer innovative PB products for its customers. At the end of 2006, Carrefour invested substantially in innovation in its own brands through premium private brands (Rubio and Yague, 2009). In Taiwan, moreover, Carrefour now offers many imported PB products from different countries such as France, Korea, China and Japan (see Chapter 2). Taiwanese consumers might treat these imported PB products as innovative merchandise.

Otherwise, compared with the long history of PB in US and European markets, the availability of PB in grocery stores is relatively new in the Taiwanese market. As discussed above, Taiwanese consumers had not experienced PB products until 7-11 introduced its own brand products in May 1979. Carrefour has offered its own brands for a very short time. Other surveys done in the short PB history countries such as Korea report a positive relationship between PB attitude and consumer innovativeness (Jin and Suh, 2005). Therefore, it is reasonable to predict that Taiwanese consumers with higher innovativeness will be more likely to have a favourable attitude toward PB and result in higher PB purchase intention. Based on the discussion above, this research postulates that:

H2-1: Consumers' private brands purchase intention is positively related to their innovativeness.

3.2.3 Perceptual Variables

From previous work, PB purchasers do not comprise a single segment that can be easily represented only using demography or personality bases. The addition of perceptual factors as a distinguishing variable offers a further measure that may add to our understanding of the purchasing of private brands. Unlike the effect of socio-economic or personal characteristics, perceptual factors are more directly related to consumer purchase behaviour. Numerous perceptual variables such as perceived risk, perceived quality and perceived value for money are believed to be critically associated with attitudes toward private brands.

This section discusses how perceptual variables have been discussed and applied in the study of PB purchase behaviour, and how previous studies complement to each other. Some discussion on how perceptual variables contribute to the understanding of PB purchase is given. Finally, some hypotheses are proposed based on the discussion.

3.2.3.1 Overview of Perceptual Variables

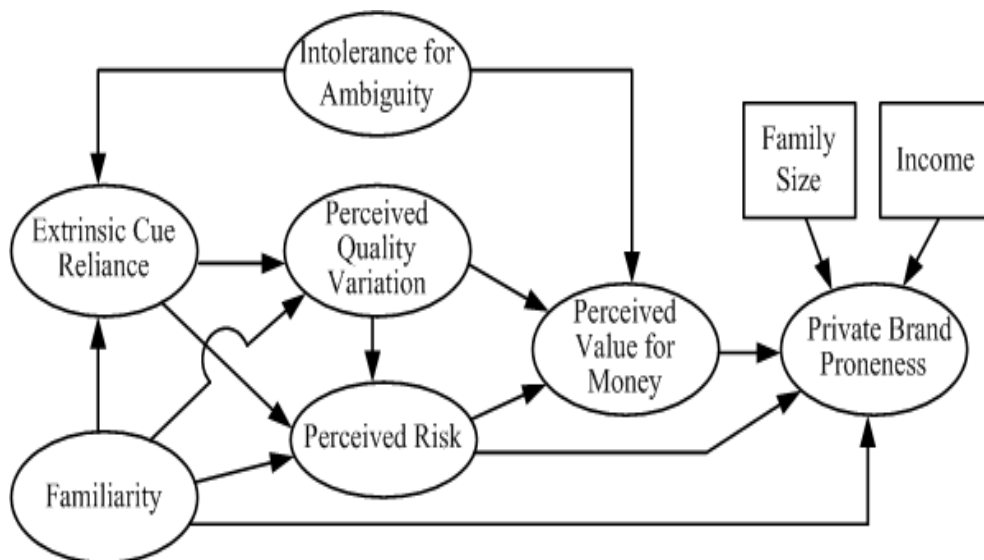
The literature to date has identified a number of perceptual factors correlated with private brand proneness including perceived quality (Dick et al., 1995), perceived risk associated with PB purchase (Richardson et al., 1996; Dick et al., 1995), familiarity with PB (Dick et al., 1995; Richardson et al., 1996), perceived saving (Richardson et al., 1996), deal proneness (Burton et al., 1998), perceived value for money (Dick et al., 1995; Richardson et al., 1996), price consciousness (Lichtenstein et al., 1993; Ailawadi et al., 2001), value consciousness (Lichtenstein et al., 1990; Lichtenstein et al., 1993), price-quality perception (Lichtenstein et al., 1993), brand loyalty (Burton et al., 1998), quality consciousness (Ailawadi et al., 2001), store loyalty (Ailawadi et al., 2001), and store reputation reliance (Richardson et al., 1996; Lichtenstein et al., 1993). A review of these studies reveals that significant attention has been given to consumer perception toward perceived price, quality and risk of PB.

The theory of reasoned action (see Ajzen and Fishbein, 1980) suggested that a person's behavioural intention depends on the person's attitude about the behaviour and subjective norms. The theory of reasoned action has been applied to explaining consumers' PB purchase behaviour. For example, Burton et al. (1998) proposed that consumers' perceptions would influence their attitude and then purchase intention. Therefore, consumer perceptual characteristics were most linked to PB purchase (Jin and Suh, 2005). However, perceptual factors were more complicated in relation to other variables and consumer purchase behaviour. For example, Richardson et al. (1996) collected data from 582 shoppers in the US and pointed out the most important single construct predicting PB proneness was brand familiarity. They also found that perceived value for money was a significant predictor of household PB proneness and which meant that households that perceived greater value for money in PB brands exhibited a higher propensity to buy these products.

Furthermore, Richardson et al. (1996) found that higher perceived risk

associated with buying PB resulted in poorer value for money perceptions and, ultimately, decreases PB proneness. They also concluded that the greater the perceived quality variation between national and PB grocery items, the less favourable the value for money perceptions of PB and the greater the perceived risks associated with PB purchase. Moreover, households that are inclined to rely on extrinsic cues in quality assessment perceive greater variation between national and PB quality and greater risk in PB purchase. These results suggest that consumers' negative perceptions of PB are driven primarily by the poor quality image of these products. Their research framework can be seen in Figure 3.1 below.

Figure 3.1 Richardson's model



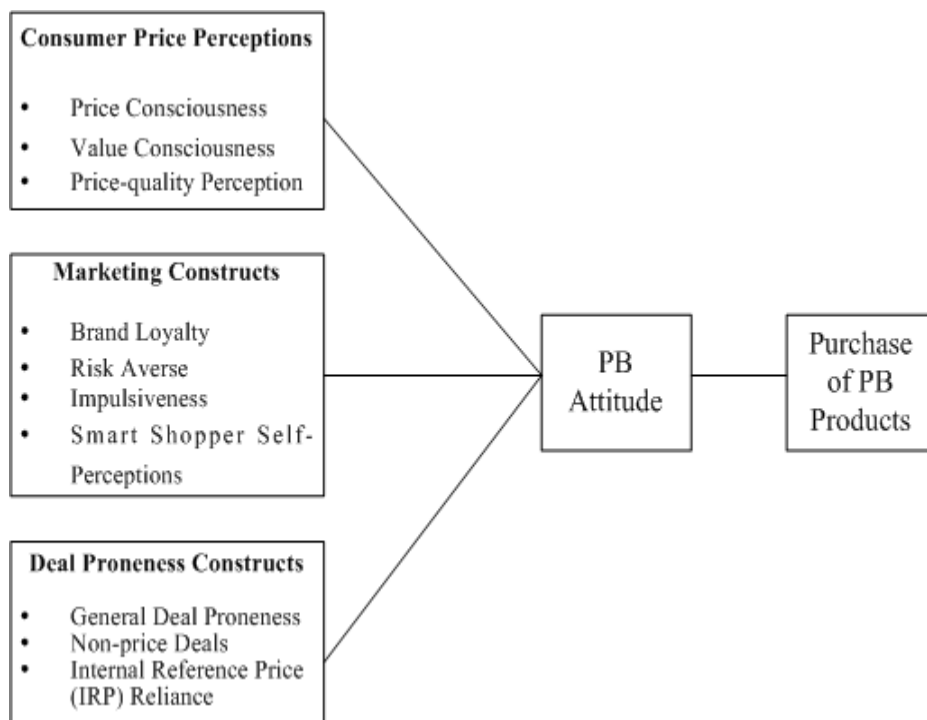
Source: Richardson et al. (1996) p176

Burton et al. (1998) used consumer price perception, marketing and deal proneness constructs to determine what kind of consumers had a more positive PB attitude and which consumers purchased more PB products (see Figure 3.2). These constructs contained some important consumer psychographic characteristics including price consciousness, value consciousness, price-quality perceptions, brand loyalty, risk averseness, impulsiveness and smart-shopper self-perceptions. A pre-test was first conducted to develop the scale to measure consumer attitude toward PB and to pre-test measures of several of the postulated correlates for this attitude measure. Then after analysing data collected from 896 shoppers in the US,

the six items in the PB attitude scale were next subjected to confirmatory factor analyses using LISREL. Their results indicated that consumer's PB purchase behaviours were positively related to value consciousness, deal proneness, and smart-shopper self-perceptions, and negatively related to the propensity to be brand loyal and hold price-quality perceptions.

Among these consumer psychographic characteristics, value conscious consumers who cared about the ratio of quality received to price paid in a purchase had more positive PB attitude than price consciousness consumers and both associate with high PB purchased percentage. Although their research did not test the causal relationship between consumers' psychographic characteristics and PB purchase behaviour (i.e. PB attitude and purchase of PB products), their result breaks the stereotype that the PB user is always only a price conscious consumer. That means retailers should not only focus on the price advantage of PB products but also the value enhancing from quality improving of PB.

Figure 3.2 Relationships between consumers' attitude toward PB products and other constructs

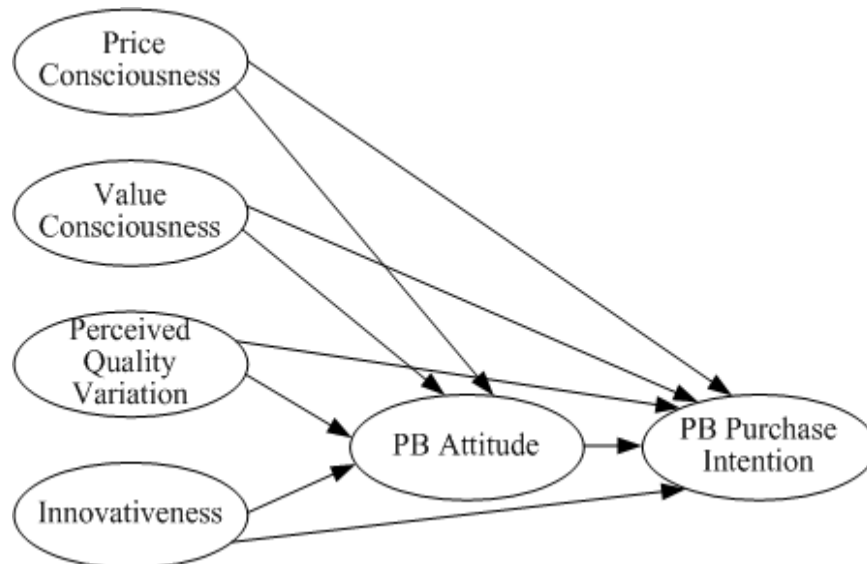


Source: Burton et al. (1998) p. 295

Note that though these consumers' psychographic characteristics might have direct effect, Burton et al. (1998) did not test the direct effect between these factors and the percentage of PB purchases. Otherwise, because they used the US consumers as research sample to test the model, it is difficult for researchers to know that whether the same research framework can be applied to other countries with different cultural or not.

Consumer perceptual variables can be discussed with other personal variables. For instance, Jin and Suh (2005) integrating perceived and personal variables that might influence PB preference and purchase intentions, proposed a model with four consumer characteristic factors – price consciousness, value consciousness, perceived quality variation, and consumer innovativeness. These contributed directly to explaining individual differences in PB attitude and PB purchase intention (see Figure 3.3). They then tested the model in two product categories, grocery and home appliances, in a South Korean discount store context. Only two variables, value consciousness and consumer innovativeness, predicted PB attitude in both product categories.

Figure 3.3 Model of consumer characteristics and PB purchase intention



Source: Jin and Suh (2005), p64

A review of related studies of PB shows that price, brand name and store name are three main external cues that influence consumers' willingness to

buy PB. Significant attention has been given to consumer perceptions toward price, brand and store image since these factors have been identified as three of the critical factors that effect the perceive value and purchase intention for consumers (Grewal et al., 1998; Grewal et al., 2004).

Previous literature identified various price-related perceptual variables. Of particular one note is Lichtenstein et al.'s (1993) research in which they proposed seven different price-related constructs, including five variables consistent with a perception of price in its negative role (e.g. value consciousness, price mavenism, price consciousness, sale proneness) and two variables consistent with a perception of price in its positive role (e.g. price-quality schema and prestige sensitivity). Among these variables, price consciousness is most widely applied in the PB attitude and purchase studies. Research such as Omar (1996), Baltas (1997), Burton et al. (1998), Veloutsou et al. (2004), Jin and Suh (2005), Baltas and Argouslidis (2007) all refer to consumers' price consciousness variable having a great effect on the PB attitude (see Table 3.2).

Previous literature also identified numerous brand-related perceptual variables. The belief that brand perceptions strongly influence buying behaviour is widely known, and this belief also explains why many manufactures invest lots of money in advertising and try to effect the consumer's perception of their brands. These brand-related perceptual variables include familiarity with private brands, perceived quality, and perceived risk with PB purchase (e.g. Dick et al., 1995; Richardson et al., 1996; Baltas and Argouslidis, 2007). All these studies refer to consumers' PB perception variables having a great effect on the PB attitude (see Table 3.2).

Finally, though previous literature proved that store information critically influenced consumers' purchasing behaviours (Dodds, 1991), there are still limited studies focusing on the influence of store-related perceptual variables such as store reputation reliance. Since one advantage for private brands with the retailer's name is seeking to benefit from any transfer or

spill-over of image from the corporate brand (Kapferer, 2000), a strong relationship between store and PB image is the fundamental requirement for a successful differentiation strategy (Collins-Dodd and Lindley, 2003). Hence this research selects to use store reputation reliance to represent consumers' store perception variables.

In conclusion, the literature to date has identified a number of perceptual factors correlated with PB attitude and PB purchase. As more and more perceptual variables were used, it has become widely accepted that consumer perceptual characteristics were linked to PB purchase (Jin and Suh, 2005). Generally, these perceptual variables can be arranged into three categories - perception toward price, brand and store since they are three main external cues that influence consumers' willingness to buy. This research, therefore, selects five critical perceptual variables (i.e. price consciousness, familiarity with PB, perceived PB quality, perceived PB risk and store reputation reliance) for analyzing. This study will further discuss these perceptual variables in the next section.

Table 3.2 An overview of prior research in perceptual factors

	Burger and Schott (1972)	Bettman (1974)	Livesey and Lennon (1978)	Bellizzi et al. (1981)	McGoldrick and Marks (1987)	Richardson et al. (1994)	Dick et al. (1995)	Omar (1996)
Research Subject	PB	PB	PL	PB & Generic	PL	PB	PB	PL
Dependent Variable:	P	P	P	P	P	PBP	PBP	P
Price Consciousness	+		+	+	+			+
Familiarity with PB		+	+	+			+	+
Perceived PB Quality		+	+	+		+	+	
Perceived PB Risk		-	-	NS			-	
Store Reputation Reliance	+							
Sample size and origin	540 housewives in the US	123 housewives in the US	387 households in the UK	125 questionnaires in the US	200 shoppers in the UK	1564 shoppers in the US	1,353 shoppers in the US	1,360 shoppers in the UK
Original Journal	Journal of Marketing Research	Journal of Applied Psychology	European Journal of Marketing	Journal of Retailing	European Journal of Marketing	Journal of Marketing	J. of Product and Brand Management	Service Industries Journal

	Richardson et al. (1996)	Baltas (1997)	Burton et al. (1998)	Sinha and Batra (1999)	Sethuraman and Cole (1999)	Batra and Sinha (2000)	Ailawadi et al. (2001)	Semeijn et al. (2004)
Research Subject	PB	PB	PL	PL	PB	PL	PB	PB
Dependent Variable:	PBP	PBP	A	P	PBP	P	P	A
Price Consciousness		+	+	+		+	+	
Familiarity with PB	+	NS			NS			
Perceived PB Quality								
Perceived PB Risk	-			-		-		
Store Reputation								
Reliance	- *							+
Sample size and origin	582 shoppers in the US	750 consumers in the UK	896 shoppers in the US	404 shoppers in the US	140 households in the US	263 consumers in the US	319 shoppers in the US	61 females and 67 males in Holland
Original Journal	Journal of Retailing	J. of Product & Brand Management	Academy of Marketing Science	Inter. Journal of Marketing Research	J. of Product & Brand Management	Journal of Retailing	Journal of Marketing	J. of Retailing and Consumer Services

	Veloutsou et al. (2004)	Jin and Suh (2005)	Mieres et al. (2006)	Baltas and Argouslidis (2007)	Liu and Wang (2008)	Martinez and Montaner (2008)	Liljander et al. (2009)
Research Subject	PL	PB	PB	PB	PL	PB	PB
Dependent Variable:	Willingness to Buy	A PI	PBP	PBP	A	PBP	PI
Price Consciousness	+	NS +		+		+	
Familiarity with PB							
Perceived PB Quality	+			+			+ *
Perceived PB Risk			-				- *
Store Reputation Reliance					+		+ *
Sample size and origin	224 in the UK and 168 female in questionnaires in 104 in Greece	168 female in questionnaires in Korea	1.698 valid questionnaires in Spain	700 telephone interviews in Greece	328 students in Taiwan	425 shoppers in Spain	223 shoppers in Finland
Original Journal	Journal of Product & Brand Management	Journal of Consumer Marketing	Inter. J. of Retail & Distribution Management	Inter. J. of Retail & Distribution Management	Journal of Marketing Management	Inter. J. of Retail & Distribution Management	J. of Retailing and Consumer Services

Note: NS=no significant; * = Indirectly effect; (PBP) PB prone; (A) PB attitude; (P) PB purchase; (PI) PB purchase intention; (PB) Private brand; (PL) Private Label

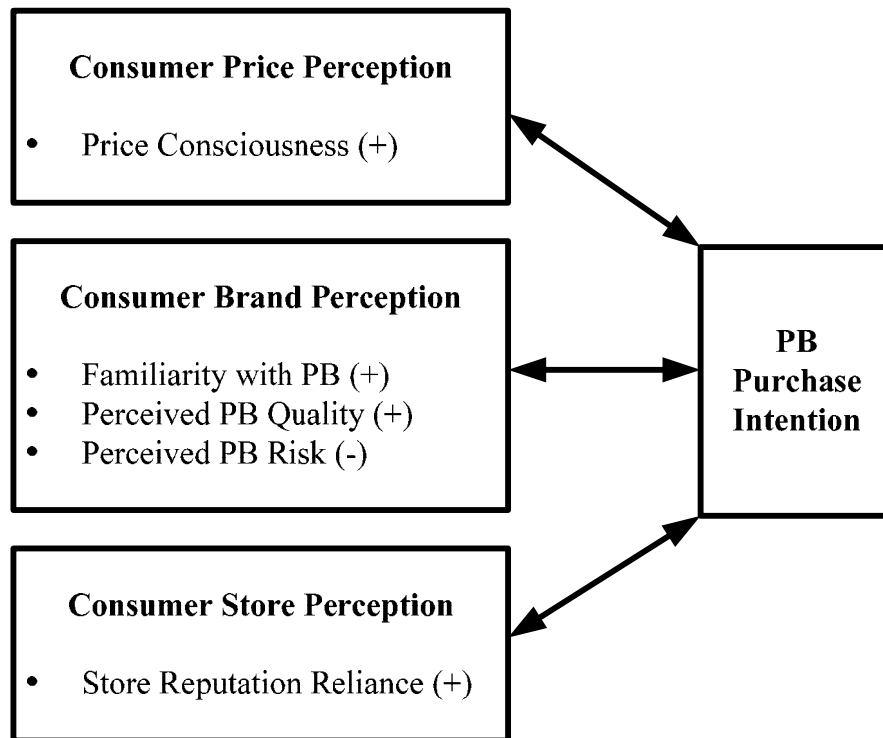
3.2.3.2 Discussion on the Effects of Perceptual Variables

The choice of any food product involves complex human behaviour, influenced by many interrelating factors, concerned with the person making the choice and external characteristics that include price, brand and retailers (Shepherd, 1985; Mann et al., 2002). Grewal et al. (2004) showed that price, brand and store image are three main external cues that influence consumers' willingness to buy specific brand. In this section, therefore, price, brand and store perception relationships are presented separately in the three partitions that follow. Firstly, consumers' PB purchase intentions are associated with their price perception since consumers may view PB products positively because they have a strong desire for lower price (i.e. price consciousness).

Secondly, the results of literature propose a possible relationship between PB purchase intention and consumers' perception of PB. These perceptions include familiarity with the brand, and quality or purchasing risk with PB purchase (i.e. familiarity with the brand, perceived PB quality and perceived PB risk).

Thirdly, the literature also alludes to PB purchase intention being associated with consumers' perception of store since consumers may view PB products positively because they have a belief in store's goodwill and rely on the store (i.e. store reputation reliance). Figure 3.4 offers a conceptual overview of predicted relationships between PB purchase intention and these three domains.

Figure 3.4 Predicted relationships between consumer's PB purchase intention and perceptual constructs



Note: (+) indicates a hypothesized positive effect and (-) indicates hypothesized negative effect

Moreover, it is important to notice that the focus of this thesis is on consumers' purchase intention of PB food products as a whole, rather than any specific grocery product category. Thus, following the research of Burton et al., (1998), the PB purchase intention measure in this research is viewed as a relatively enduring construct that is sufficiently broad to be of use in a general sense across food product categories. As such, it is consistent with construct measures that assess general consumer preference or willingness to buy (e.g., purchase intention toward price in general rather than attitude toward the price of ice cream) (Burton et al., 1998).

3.2.3.2.1 Price-related Perceptual Variables

Figure 3.4 first addresses a linkage between consumers' price perceptions and their PB purchase intention. Lichtenstein et al. (1993) proposed price-related constructs (i.e. price consciousness, value consciousness and

price-quality perception) that identified the existence of a strong relation between price perceptions and consumer shopping behaviour. Later research follows their direction and discussed the relation between price perceptions and consumer PB purchase behaviour. This research selected price consciousness that is most widely applied in the PB purchase studies.

Price Consciousness. Followed Lichtenstein et al.'s (1993, p. 235) definition, this research defined price consciousness as: "the degree to which the consumer focuses exclusively on paying low prices". However, speculation about how the various aspects of price may relate to PB usage has been expressed in different ways. Saving money is unquestionably one of the most important reasons why consumers with a limited budget focus on lower price PB rather than other famous national brands, since PB products are typically 5 % - 10 % cheaper than national brands (see Table 2.1).

From a consumer-economical perspective, high prices decrease the willingness of purchasing because consumers may feel they are sacrificing money (Dodds et al., 1991; Lichtenstein et al., 1993). In order to reduce this sacrificial feeling, some consumers may be prone to buy lower price PB products. In a survey asking consumers why they buy PB rather than national brands, 67 percent rated low price as "very important" (Kirk, 1992). Research such as Batra and Sinha (2000) collected data from 12 different product categories indicating that price consciousness directly increased PB purchase and was the strongest predictor of PB purchase behaviour.

Various findings from the studies on the aggregate share of private brands offer some support for an explanation of this price consciousness. For instance, from a macro-economical perspective, Nandan and Dickinson (1994) stated that during difficult economic times, the popularity of PB tended to increase, whereas in periods of relative economic prosperity, the share of national brands increased. Likewise, Quelch and Harding (1996, p. 99) observed that "private-label market share generally goes up when the economy is suffering and down in stronger economic periods." More recent

research by Lamey et al. (2007) confirmed that a country's private label share increases when the economy is suffering and shrinks when the economy is flourishing.

All these studies suggest that when consumers' aggregate disposable income goes down, they tend to purchase more PB product instead of expensive national brand, even though there is no change in overall levels of perceived product quality. Thus, although the quality levels of alternative brands are unchanged, the loss of income alters consumer purchase behaviour in favour of more purchases of PB products, presumably because of increased price consciousness (Burton et al., 1998).

From a micro-economical perspective, differences in PB share across product classes have led others to argue that private brands do well in product classes in which consumers are particularly price conscious. For example, Raju, et al. (1995) used a micro-economic model to prove that the introduction of a private brand is likely to increase retailer's profits in a product category if the cross-price sensitivity among national brands is low and the cross-price sensitivity between the national brands and the private brand is high.

In conclusion, past research suggests that consumer price consciousness is an important determinant of the likelihood of private label purchase. Since it is usually true that PB products offer better cost saving than national brands, it is reasonable for this research to predict a positive correlation between price consciousness and PB purchase intention. Though some evidence related to price consciousness is based on the evidence of private label, PB products still retain the characteristic of lower price than national brands. Therefore, evidence adapted from the discussion of private label still can be treated as a support of the hypothesis. Based on the discussion above, this research postulates that:

H3-1: Consumers' private brands purchase intention is positively related to their price consciousness.

3.2.3.2.2 Brand-related Perceptual Variables

Figure 3.4 then addresses linkages between consumers' brand perceptions and their PB purchase intention. Private brands were initially perceived as inferior, low quality and cheap versions of national brands when they first appeared. But as they have gradually upgraded their range and offer high quality/value for money products, the gap between manufacturer brands and retailer brands has been reduced (McGoldrick, 1984; Smith and Sparks, 1993). Research such as Steenkamp and Dekimpe (1997) and Verhoef et al. (2002) found that consumers were becoming less interested in manufacturer brands, and their attitude towards retailer brands had become positive, due to the upgraded quality of retailer brands during the last two decades. All these findings suggested that the consumers might perceive private brands differently from before. In order to find out these differences in PB, this research selected familiarity with private brands, perceived PB quality and perceived risk with PB purchase for discussion.

Perceived PB Quality. Most previous studies of PB concluded that the perceived PB quality is one of the critical factors correlated to consumers' willingness to buy the PB. And there is evidence that the popularity of private brands has grown because consumers now place trust in the (improved) quality of these products (Richardson et al., 1994; Raju et al., 1995). However, before discussing the impact of perceived PB quality, it is important to define the variable. The effect of perceived PB quality can further be classified into two main streams (i.e. absolute PB quality and relative PB quality). Both streams describe the same idea that the quality perception of PB affects the purchase behaviour of PB.

The first stream is concerned with absolute PB quality (e.g. Livesey and Lennon, 1978; Veloutsou et al., 2004). The absolute PB quality is more closed to consumers' perception toward the PB products. Previous literature consistently represented a positive relationship between perceived PB quality and PB purchase behaviour. For example, Livesey and Lennon

(1978) concluded that perception of own-label quality is an important determination of purchasing behaviour. Recently, Baltas and Argouslidis (2007) implied that the quality improvement of private brands is particularly effective in creating consumer demand.

The second stream is relative PB quality (e.g. Richardson et al., 1996; Sethuraman and Cole, 1999; Jin and Suh, 2005). While the absolute PB quality is only concerned with the quality of PB, relative PB quality concerns the relative quality with other national brands. Dick et al. (1995) found significant differences in quality perceptions of private brands relative to national brands between the private brand and non-private brand prone shoppers groups. Another study investigated why US consumers would pay a premium for national compared to own-label brands, concluding that the perceived quality differential was the most important factor (Sethuraman and Cole, 1999).

This study uses the absolute PB quality instead of relative quality because on the one hand, this research aims to food product and food quality is a matter of consumer perception (Cardello, 1996). Consumers view quality subjectively; often only recognized through a combination of their experience, especially from a first impression, the product's value determined by price and the extent to which it satisfies their needs (Mann et al., 2002). Furthermore, the absolute PB quality is easier to measure than relative PB quality because the relative PB quality required more experienced consumers that at least familiar with two or more brands to answer the questions.

On the other hand, using the perception of absolute PB quality can reflect the fact that the real quality of PB products increase dramatically during these years. In fact, thirty years ago, PB products had a relatively small share of the food market and consumers regarded them as being of inferior quality (Bellizzi et al., 1981; Cunningham et al., 1982). Therefore, national brands are typically higher in equity, and therefore perceived quality, than their private label counterparts (Richardson et al., 1996; DelVecchio, 2001).

However, as retailers are aware of the importance of PB and the profitability of introducing high quality PB, their PB products have grown in reputation and customers have often found them as good as the manufacturer brands (Stauffer, 1994). The Private Label Manufacturers Association (PLMA) also asserts that some private brands offer the same quality as national brands and some academic research findings also asserted that the quality of PB is very close to the brand leader. Several practical works support this argument. For example, Mann et al. (2002) used blind taste test and found that many premium and economy own-label brands of bread, bacon and orange juice were equally acceptable compared to leading national brands in the UK. Similarly, Wulf et al. (2005) used blind and non-blind taste test of five orange juice brands and concluded that private label products could offer the same or even better quality (i.e. taste) than national brands in Belgian.

As PB products have ability to meet an acceptable level of perceived quality, consumers might have higher willingness to buy these PB products. Many prior studies verify this argument. For example, the study of Veloutsou et al. (2004) found that perceived quality was one of choice criteria when buying own labels and a good predictor for the loyalty to a supermarket. Wells et al. (2007) reported that British retailers had ability to improve packaging design and product quality of their own brand products. These improvements in perceived PB quality result in better PB attitude that added in their purchase decision.

In short, perceived PB quality no matter in terms of absolute or relative quality of PB is a significant aspect affecting consumer's PB performance. This thesis argues that how consumers perceive the quality of a specific retailers' PB can be used in explaining their positive or negative PB attitude and higher or lower willingness to buy the PB. Based on the discussion above, this research postulates that:

H4-1: Consumers' private brands purchase intention is positively related to their perceived PB quality.

Perceived PB Risk. Perceived risk has been extensively studied by scholars in the consumer behaviour field (e.g. Hornibrook et al., 2005; Mieres et al., 2006) and has been proposed as one of the most important concepts for understanding how consumers make choices (Mitchell, 1999). Most previous studies concluded that the perceived risk of PB is negatively correlated to consumers' intention to buy the PB. For example, Hornibrook et al. (2005) empirically supported this argument. They found that consumers' perception of risk associated with food safety reduce their beef purchases in Irish supermarkets. Mieres et al. (2006) also found that the perceived PB risk associated with private brands clearly inhibits the purchase of this type of brands. They further argued that in spite of the continuous and growing efforts of retailers to improve the positioning of their own brands, they were still perceived as riskier purchase alternatives than national brands.

Perceived PB risk is a multidimensional concept. Cunningham (1967) first described perceived PB risk as comprising two components: uncertainty and adverse consequences. Specifically, uncertainty regarding PB quality and perceptions of danger associated with PB purchase are two key variables that discriminate private brand from national brand buyers.

Later research Jacoby and Kaplan (1972) further identified the existence of five underlying dimensions to the perceived PB risk associated to a purchase: functional (associated to the performance of the product), financial (related with the potential monetary loss), social (relative to the perception of other individuals about the consumer), physical (relative to the health or physical well-being) and psychological risk (associated to the individuals self-esteem). This research follows Jacoby and Kaplan's (1972) work and defined perceived risk of PB as a combination of these dimensions.

Livesey and Lennon (1978) speculated that social risk inhibits the selection of particular kinds of PB grocery items according to the usage situation. For example, they pointed out that English consumers served national brand tea

to guests in social settings but consumed less expensive PB tea when such behaviour cannot be observed by significant acquaintances. DelVecchio (2001) revealed that compared to national brands, PB products had lower financial risk because of its lower price. However, lower price also results in higher levels of functional and/or social risk.

Several empirical studies also support this argument. For example, Bettman (1974) indicated that consumers' intentions for purchasing of PB products were greatly influenced by the perceived risks associated with product purchase. Also, Richardson et al. (1996) proved that higher perceived risk associated with buying private label brands results in poorer value for money perceptions and ultimately, decreases PB proneness. Narasimhan and Wilcox (1998) argued that consumers preferred national brands to private brands if the level of perceived risk in buying the PLB in that category was seen as high.

However, the continuous and growing efforts of retailers to improve the positioning of their own brands might change the relationship between perceived risk and PB purchase. Consumers might not perceive high risk when they purchase PB products because of the improvement of quality and reputation of PB. But some recent literature shows that private brands are still perceived as riskier alternatives than national brands (e.g. Mieres et al., 2006; Baltas and Argouslidis, 2007).

For Taiwanese consumers, the short develop history of PB might result in their high risk perception of PB since they have not had enough time and experience to build trust in the PB. Though the improvements in both packaging/features as well as quality of PB can help the retailer to reduce consumers' risk perception, this process need time to accumulate consumers' familiarity with PB and better quality perception. Based on the discussion above, this research postulates that:

H5-1: Consumers' private brands purchase intention is negatively related to the perceive risk with PB.

Familiarity with PB. Consumers may differ in their degree of familiarity with different retailer's private brands, since their experience of each stores' private brands must be different. Brand familiarity enhances confidence in one's ability to have specific skill in judging the criteria needed to evaluate product quality and to avoid those that may fail to meet specific consumption requirements. Laroche et al. (1996) confirmed that familiarity with a brand had an influence on consumer confidence towards a brand, which, in return, affected the intention to buy that brand.

Also, Monroe (1976) found that when consumers faced two familiar brands, price differences were the strongest factor influence on brand preference. But when the degree of brand familiarity was not equivalent, the cognitive or familiarity factor became stronger than the brand and price difference factors. This finding points out the importance of the familiarity and indirectly supports the argument that familiarity with a brand increases consumers' preference toward the brand.

On the other hand, lack of familiarity might contribute to the elimination of brands from the consideration set for purchase decisions (Dick et al., 1995). This phenomenon might be serious in terms of PB products in particular. Because given the stereotype of private labels as "risky" alternatives, familiarity becomes an important determinant of consumer choice (Baltas, 1997). Since the familiarity variable reflects perceived PB risk and amount of information available to the consumer about private brands, as consumers' familiarity with private brands increases, then the perceived performance risk should decrease because uncertainty is reduced (Sethuraman and Cole, 1999).

Some previous studies supported this argument. For example Dick et al., (1995), found that PB prone consumers exhibited significantly greater familiarity and usage experience with private brands than those reluctant to buy them. They further pointed out that greater familiarity served to increase the understanding that private brands were of better quality than

one might expect in the absence of experience.

Lack of familiarity may also increase the importance of extrinsic cue effects such as advertising or packaging (Richardson et al., 1996). Initially, compare to manufacture's brand, PB has a disadvantage in advertising or packaging because of several limitations. Some manufacturers (e.g. Coca-cola and Nestle) have been building their brands for decades and they have strong brand images signalling quality reassurance to many consumers. If the consumers lack of familiarity with PB, it is reasonable for them to select national brands that offer strong external cues.

Previous research has established that brand familiarity affects price perceptions and consumers' willingness to pay for brands. For example, the work of Rao and Monroe (1988) indicated that the use of price as an indicator of product quality decreased monotonically as buyers' familiarity with the product increased. Since PB products usually offer lower price than national brand products, familiarity with PB helps consumers to less rely on using price as an indicator of product quality.

In conclusion, consumers' PB purchase intention will be positively correlated to their familiarity with the PB. Because as the consumers become more familiar with a brand, their uncertainty about the PB decreases. At the same time, their confidence towards the PB will increase and result in their higher intention to buy the PB. Based on the discussion above, this research postulates that:

H6-1: Consumers' private brands purchase intention is positively related to their familiarity with PB.

3.2.3.2.3 Store-related Perceptual Variables

Store-related variables have been relatively less discussed in previous studies since store name has had a small and non-significant effect on buyers' perceptions of quality, whereas both price and brand name have

been shown to have a significant effect (Rao and Momoe, 1989). This research, however, selected private brands as a research subject and it is important to include store-related variables for discussion because store reputation might play a more important role in relation to PB than manufacturers' brands. Previous research such as Rothe and Lamont (1973) found significant differences in that with the national brand buyers regarding brand as quite dominant in the purchase decision while the PB buyers regarded 'both store and brand' to be of equal importance. Therefore, it is important to introduce the store-related variables when discussing private brands.

Retailers usually use the strategy that store and its PB share the same name. For example, in this research, Carrefour used 'Carrefour' as one of its major private brands in food products (see Chapter 2 for the details). Since PB products are owned and branded by retailers, it is reasonable for this research to predict a correlation between the consumers' store perception and PB purchase intention. After all, it is the retail trade name that is placed on the product and the 'values' that customers attribute to that trade name that are transferred to the product (Burt, 2000).

Store Reputation Reliance. Store reputation is one of the main external cues that influence consumers' willingness to buy. Like price or brand name, store reputation provides consumers with some information to judge the quality of the brand (Grewal et al., 1998). As Collins and Burt (2006) pointed out the retailer's name on a product had become a cue for product consistency and quality, serving to assist consumers in their product choice decisions. This cue or information is especially important when consumers have limited or little information about the real quality of the product or the brand (Andrews and Valenzi, 1970; Park and Winter, 1979; Richardson et al., 1996). Since Taiwanese consumers have relative little information to judge the true quality of PB since the short history of PB development, it is important for this thesis to discuss the store reputation reliance variables.

Most retailers realize the importance of maintaining good store reputation

and state to promote themselves. Basically, two research objects (i.e. Carrefour and 7-11) are both international retailers and have good reputation in Taiwan. They invested resource in not only commercials but also consumer relationships to earn consumers' trust. Consumers' trust in a specific store sometimes decides their purchase behaviours. Reputable stores are better able to secure consumers' trust and affiliation as they confer a psychological assurance of quality or worth. This affiliation also extends to the pride of ownership of the products and a sense of premium, thereby augmenting the pleasure domain of consumer perception (Thang and Tan, 2003). For example, Morgan and Hunt (1994) found that trust and commitment are key variables in buyer-seller relationships. On the one hand, trust reduces the perceived uncertainty and the perceived vulnerability associated with using marketing information, and on the other hand, trust has been conceptualized as a determinant of relationship quality. Parasuraman et al. (1985) view trustworthiness, in addition to believability and honesty, as part of credibility, which determines perceptions of service quality.

Several practical studies verify the positive correlation between good store image and consumers' good attitude toward the PB. For example, Semeijn et al. (2004) tested the sample in three retailers (i.e. Albert Heijn, Edah and Aldi) in the Netherlands and found that store image was an important predictor of attitude towards a private brand. They further indicated that good store image could not only enhance perceived quality but also reduce perceived risk of the PB. Similarly, Liu and Wang (2008) found that private label attitude was associated with better store image in Taiwan. Recently, Liljander et al. (2009) found that store image affected purchase intentions indirectly, by reducing perceived PB risk and increasing PB quality perceptions.

On the contrary, if the chain has a poor reputation, for example its stores are perceived as low quality with disinterested staff, low levels of customer service and failing to deliver a pleasant shopping experience, these 'values' will be transferred to the product (Burt, 2000, p 884). Since PB or private

brand products can be bought across many categories in one store, eventually, the poor reputation will result in lower willingness to buy the store's PB.

In conclusion, though previous research rarely discusses about the effect of store reputation reliance directly, some related studies have been found. Store reputation reliance might be an important factor in determining PB purchase since store image affects consumers' perception of PB. For instance, Burger and Schott (1972) used discriminant analysis to show that the PB buyers believed that the store is more important than the brand while national brand buyers perceive no importance in which store to shop. Therefore, this research proposes a positive relationship between consumers' perception of store reputation and PB purchase behaviour. Based on the discussion above, this research postulates that:

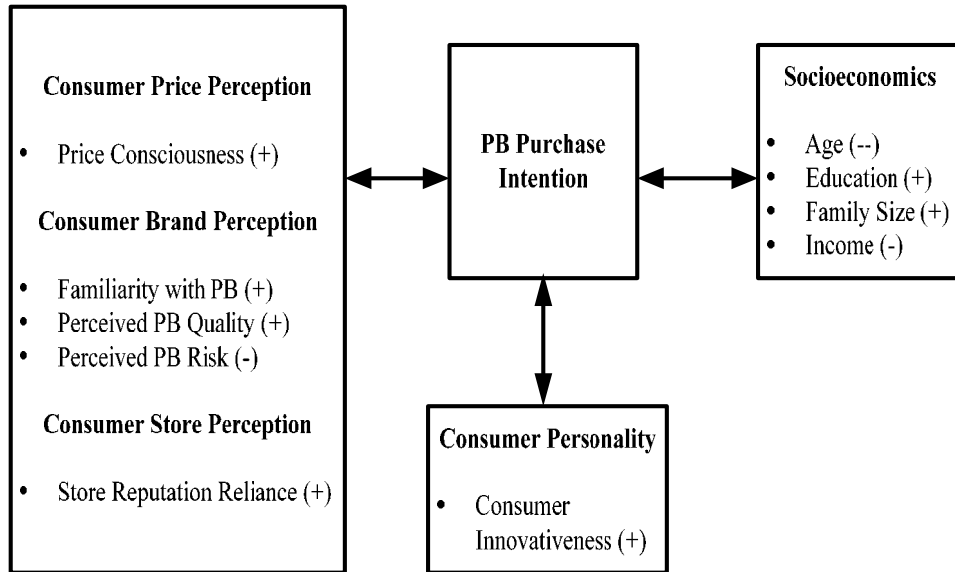
H7-1: Consumers' private brands purchase intention is positively related to their store reputation reliance.

3.3 Summaries and Conceptual Framework

Previous research suggests that individual characteristics can be used in explaining heterogeneous preferences for private brands. After a literature review, this research concludes that three broad sets of concepts that potentially underlie consumer receptivity to PB products. Socio-economics, personal and perceptual variables have correlation with PB purchase intention.

After a review of related literature, however, there is almost no research focusing on the effect of these three concepts simultaneously. Therefore this thesis proposes a model that integrates socio-economics, personal and perceptual variables. Figure 3.5 offers a conceptual overview of predicted relationships between PB purchase intention and latent constructs from within each of these three domains.

Figure 3.5 Predicted relationships between consumer's attitude toward PB and other constructs



Note: (+) indicates a hypothesized positive effect and (-) indicates hypothesized negative effect

Figure 3.5 first proposes a linkage between consumers' socio-economic characteristics and their purchase intention toward PB products. Family size and education level were concluded to have a positive correlation with PB purchase intention while income was negative. Age was expected to have no correlation with PB purchase intention. While increases in the market share of private brands have generally been linked to issues associated with lower price and extra value, speculations about how these variables may relate to PB purchase intention have been discussed in various ways. For instance, younger consumers and those living in larger families or with lower income might have budget constraints and concerns about the saving while elderly and well-educated consumers might focus on the real value of the products not brand name.

Figure 3.5 then addresses the linkage between consumer innovativeness and their purchase intention toward PB products. Consumer innovativeness has been hypothesised to be positively associated with PB attitude since innovative consumers might treat PB as a novel brand and tend to buy it.

Lastly, Figure 3.5 addresses linkages between consumers' perceptual variables and their attitude and purchase intention toward PB products. The effects of price, brand, and store image on buyers' perceptions of product quality and value have been proved in previous research (e.g. Dodds et al., 2001) but surprisingly most previous studies have only examined either price or brand related factors that contribute to PB purchase. This research, therefore, has highlighted the roles of consumers' perceptual factors concerning price, brand and store and proposed a more hybrid perspective that is lacking from the literature.

Chapter 4 Research Strategy and Methodology

4.1 Chapter Overview

In previous chapters, the background of PB development in Taiwan and relative literature of PB were reviewed. Based on the results of literature review, some research hypotheses were proposed. In order to test these hypotheses, some research methods and strategies need to be presented before data collecting.

This chapter first identifies the research purposes and questions, and then discusses the research strategies and methods used in this research. A mixed method strategy is employed in answering the questions regarding what factors related to Taiwanese consumers purchase of PB. Two main research methods, the qualitative focus group interviews and quantitative questionnaires are elaborated and analyzed. Next, the management of fieldwork, e.g., selecting the location, identifying the interview groups and setting the timetable, will be discussed. Finally, a summary is provided.

4.2 Research Purposes and Questions

4.2.1 Research Purposes

The literature review revealed a range of research studies on PB attitude and PB purchase intention. However, after a review of previous studies in Chapter 3, two research gaps were revealed. Firstly, most studies of PB are undertaken in either the US or the UK and little research has been undertaken in Asian countries such as Taiwan. Secondly, there is still a need for an integrated model including existed variables.

An important question concerning these research designs is to what degree are these marketing theories and/or models developed in the US or UK

applicable across other countries (Agarwal and Teas, 2004). If these marketing variables developed in the country with a long PB development history (such as the UK) could be applied into the other countries with a relatively short PB development history (such as Taiwan), the new data collected from the later can strengthen the existing theories. If not, new variables or measures should be proposed and tested.

Furthermore, there is a need to integrate existed variables into a model. Though prior research has proposed several frameworks in predicting PB purchase behaviour, all prior studies of PB have generally been limited to one or two constructs. For example, the works of Richardson et al. (1996), Burton et al. (1998), Batra and Sinha (2000) and Jin and Suh (2005) all ignore the store-related factor. Therefore, an integrated model including price, brand and store-related variables is still missing.

In conclusion, the purpose of this thesis is to fill these research gaps as discussed above. To do that, the thesis first presents a framework of the factors that might influence PB purchase intention. The framework is based on existing PB research and the results of focus groups. Also, to provide more insight about the model and to observe the store difference, this research selects two types of retailers, hypermarket and convenience store, in Taiwan. So that retailers and suppliers can better segment and understand their customers. More specificity, the sub-objectives are to:

1. Understand how personal, perceptual and socio-economic variables affect Taiwanese consumers' PB attitude and PB purchase intention.
2. Build an integrated framework to predict consumers' PB attitude and PB purchase intention.
3. Identify what's the difference in consumers' reaction to different retailer's PB products.

4.2.2 Research Questions

Existing studies of PB have proven that the consumer group that buy private brands are different from the group that do not buy them (and who probably prefer national brands). In other words, there are separate segments of PB purchasers and non-PB purchasers (Whelan and Davies, 2006). However, private brands have evolved into a new generation. Many retailers have ability to offer more innovative, qualitative and targeted PB products than before (Hoch and Banerji, 1993; Quelch and Harding, 1996; Dunne and Narasimhan, 1999; Burt and Sparks, 2002; Binninger, 2008). Numerous studies point out that there are new consumer segments that are very favourable to PB products (Livesay and Lennon, 1978; Baltas and Doyle, 1999; Mieres et al., 2006). Therefore, there is a need to re-identify these new consumer segments.

In the meanwhile, existing studies of private brands have identified various perceptual and personal variables correlated to consumer's PB purchase intention. However, a review of the literature reveals that most existing studies focused on the direct correlations between consumer characteristics and their PB purchase behaviours, few studies discussed how these variables interact to each other. Some indirect correlations between consumer characteristics need to be further discussed.

The last question concerns the different stores' own brands in Taiwan. Though some previous finding indicated that since all retailers tend to offer standardized PB products, the data collected from different stores might have similar results (e.g. Omar, 1996). However, others research have indicated that some retailers might have the ability to differentiate themselves from their competitors with premium own brand products (e.g. Binninger, 2008). Since grocery retailers know how to use their own private brands to build store difference, consumers might perceive a brand image specific to a firm. Therefore, this research expected the research findings will differ by retailers since different retailers might provide different PB products for their consumers.

In sum, three research questions are to be discussed throughout the process of investigation and these questions are addressed as follow:

1. What kinds of consumers have more positive attitudes toward private brands than others?
2. How do various perceptual and personal variables influence consumer's PB purchase intention?
3. Do Taiwanese consumers perceive the difference between Carrefour and 7-11's PB products?

4.3 Research Strategy: Qualitative and Quantitative Research

In this study, the research strategy is combining qualitative and quantitative research methods into a mixed research project. However, different research methods have different philosophical assumptions in terms of ontology and epistemology, reflecting a different focus on the nature of reality, a different point of view on the nature of the relationship between theory and different approaches (Bryman, 2008). Table 4.1 summarizes the fundamental difference between qualitative and quantitative research methods. This research, thus, will first discuss the research paradigms (i.e. positivism and interpretivism) and then the research approaches (i.e. deductive and inductive).

Table 4.1 Fundamental difference between qualitative and quantitative research methods

	Quantitative	Qualitative
Epistemological orientation	Positivism	Interpretivism
Principle orientation to the role of theory in relation to research	Deductive; testing of theory	Inductive; generation of theory

Source: Bryman, 2008, p 22

4.3.1 The Positivism and Interpretivism Paradigms

Table 4.1 above shows that positivism and interpretivism are correlated to qualitative and quantitative research methods in terms of epistemological orientation to the conduct of social research. Generally speaking, quantitative methods are used by positivists whilst qualitative methods are used by interpretivists. Positivism and interpretivism paradigms have many differences in terms of ontology, epistemology, research object, method, theory of truth, and methods (see Table 4.2 below).

Questions of social ontology are concerned with the nature of social entities (Bryman, 2008). The positivist views the nature of reality as external and objective whilst the interpretivism views the nature of reality as subjective (Carson et al., 2001). Therefore, positivist believes that researcher and reality are separate whilst the interpretivism thinks that researcher and reality are inseparable. Thus, interpretivism believes that multiple realities exist because of different individual and group perspectives (Carson et al., 2001).

Questions of social epistemology are concerned with what is regard as appropriate knowledge about the social word (Bryman, 2008). The positivist regards the knowledge about the social word existing beyond the human mind whilst the interpretivism regards the knowledge about the social word existing through a person's lived experience (Weber, 2004).

From an epistemological and/or ontological version, qualitative and quantitative research strategies are grounded in incompatible philosophic principles. It becomes clear that they relied on very different assumptions about both the knowledge and the appropriate means of generating knowledge. It is impossible for a single research project to use qualitative and quantitative strategies at the same time. However, a technical version offers an opposite views on the issue (Bryman, 2004).

Table 4.2 The differences between positivism and interpretivism

Metatheoretical Assumptions About	Positivism	Interpretivism
Ontology	Person (researcher) and reality are separate.	Person (researcher) and reality are inseparable (life-world).
Epistemology	Objective reality exists beyond the human mind.	Knowledge of the world is intentionally constituted through a person's lived experience.
Research Object	Research object has inherent qualities that exist independently of the researcher.	Research object is interpreted in light of meaning structure of person' (researcher') lived experience.
Method	Statistics, content analysis.	Hermeneutics, phenomenology, etc.
Theory of Truth	Correspondence theory of truth: one-to-one mapping between research statements and reality.	Truth as intentional fulfilment: interpretations of research object match lived experience of object.

Source: Weber (2004) p.

Specifically, a technical version⁸ gives greater prominence to the strengths of the data collection and data analysis technique with which qualitative and quantitative research is each associated and sees these as capable of being fused (Bryman, 2004, p.454). The process of this research follows a mixed

⁸ A technical version, which is the position taken by most researchers whose work is mentioned in the next section, gives greater prominence to the strengths of the data collection and data analysis techniques with which qualitative and quantitative research are each associated and see these as capable of being fused (Bryman, 2008, p.606)

approach in that qualitative and quantitative research strategies were combined into a single project. The further detail of mixed approach will be discussed in 4.3.3 below.

4.3.2 Inductive and Deductive Research Approaches

Blaikie (2000) has proposed four approaches to research strategies including inductive, deductive, retroductive and abductive (see Table 4.3 below). Inductive and deductive are two of the most common research strategies in social science studies. In view of this research used a mixed strategy that combining qualitative and quantitative research strategies. The inductive and deductive research strategies will be further discussed.

The inductive research strategy starts with the collection of data and then proceeds to derive generalizations. This inductive logic is most popular in qualitative research that tries to collect different perspectives to establish universal generalizations. Once these generalizations are established, they can be used to explain the occurrence of specific events by locating them within the pattern of established regularities (Blaikie, 2000).

The deductive research strategy is totally different from the inductive strategy. The strategy starts with some theories that has been discovered and need be further explained. The researcher tries to test the theory by deducing one or more hypotheses from the theory and then to collect appropriate data. If the data do mach the theory, some support will be provided for its continuing use. However, if the data do not match the theory, the model must be modified or rejected (Blaikie, 2000).

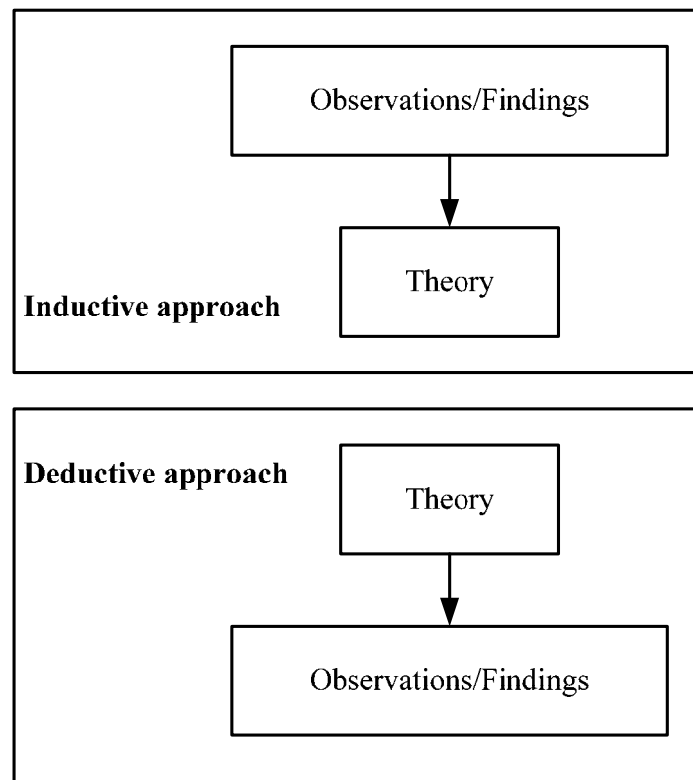
Table 4.3 The logic of four research strategies

	Inductive	Deductive	Retroductive	Abductive
Aim	To establish universal generalizations to be used as pattern explanations	To test theories to eliminated false ones and corroborate the survivor	To discover underlying mechanism to explain observed regularities	To describe and understand social life in terms of social actors motives and accounts
From	Accumulate observations or data	Borrow or construct a theory and express it as an argument	Document and model a regularity	Discover everyday lay concepts, meanings and motives
To	Produce generalization	Deduce hypotheses	Construct a hypothetical model of a mechanism	Produce a technical account from lay accounts
To	Use these 'laws' as patterns to explain further observations	Test the hypotheses by matching them with data	Find the real mechanism by observation and/ or experiment	Develop a theory and test it iteratively

Resource: Blaikie (2000) p.101

Figure 4.1 below shows the essence of the difference between inductivism and deductivism. The process of induction involves drawing generalizable inferences out of observations whilst the process of deduction involves testing a known theory with observations. This research tries to combine these two research strategies into a research project. Specifically, because inductive strategy has advantage to collect different perspectives to establish universal generalizations, an inductive research approach is used to generate hypotheses and a research framework. This research then tests the hypotheses and research framework with a deductive research strategy.

Figure 4.1 Deductive and inductive approaches to the relationship between theory and research



Source: Bryman (2008), p. 11.

4.3.3 Classification of Approaches to Mixed Method Strategy

Despite repeated calls for the use of combining qualitative and quantitative methods in consumer behaviour analysis, few academic papers use a mixed method strategy since it costs more time and resource than a single method approach. However, combining qualitative and quantitative method in consumer behaviour analysis is critical because research projects that combine the strengths of two or more methods will produce more than those same methods could offer in isolation (Morgan, 1998). There is a synergistic value to the mixed research design. For example, statistical analyses can guide participant selection for focus groups and focus group analyses can be used to develop better measurement strategies and to assess the plausibility of observed statistical relationships between variables. Marketing scientists have some systematic guides for carrying out such work. For example,

Hammersley (1996) and Morgan (1998) presented some types of mixed methods.

Firstly, Hammersley (1996) has proposed three approaches to mixed method-strategy research:

- **Triangulation.** This refers to the use of qualitative research to corroborate quantitative research findings or vice versa. In other words, triangulation refers to using different methods to examine or test the same research problem.
- **Facilitation.** This approach arises when one research strategy is employed in order to aid research using the other research strategy.
- **Complementarity.** This approach occurs when two research strategies are employed in order that different aspects of an investigation can be dovetailed.

Secondly, Morgan (1998) proposed “Priority-Sequence Model” that used two criteria (i.e. priority decision and sequence decision) to category the mixed methods research. Researcher must to decide (1) the principal method is either qualitative or quantitative (2) the complementary method occurs as a preliminary or a follow-up stage to the principal method. His classification produces four types of approaches (see Figure 4.2 below).

Figure 4.2 Complementary combinations of qualitative and quantitative research: The priority sequence model

		Priority Decision	
		Principal Method Quantitative	Principal Method Qualitative
Sequence Decision	Complementary Method: Preliminary	<p>1 Qualitative Preliminary qual → QUANT</p> <p>Purpose: Smaller QUAL study helps guide the data collection in a principally QUANT study.</p> <p>* Can generate hypotheses, develop content for questionnaires and interventions, etc.</p> <p>Example: Focus groups help to develop culturally sensitive versions of a new health promotion campaign.</p>	<p>2 Quantitative Preliminary quant → QUAL</p> <p>Purpose: Smaller QUANT study helps guide the data collection in a principally QUAL study.</p> <p>* Can guide purposive sampling, establish preliminary results to pursue in depth, etc.</p> <p>Example: A survey of different units in a hospital locates sites for more extensive ethnographic data collection.</p>
	Complementary Method: Follow-Up	<p>3 Qualitative Follow-Up QUANT → qual</p> <p>Purpose: Smaller QUAL study helps evaluate and interpret results from a principally QUANT study.</p> <p>* Can provide interpretations for poorly understood results, help explain outliers, etc.</p> <p>Example: In-depth interviews help to explain why one clinic generates higher levels of patient satisfaction.</p>	<p>4 Quantitative Follow-Up QUAL → quant</p> <p>Purpose: Smaller QUANT study helps evaluate and interpret results from a principally QUAL study.</p> <p>* Can generalize results to different samples, test elements of emerge theories, etc.</p> <p>Example: A state-wide survey of a school-based health program pursues earlier results from a case study.</p>

Note: 1. (QUAN=quantitative data was prioritized; QUAL=qualitative data was prioritized; qual=lower priority given to the qualitative data; quan=lower priority given to the quantitative data)

2. Source: Morgan (1998), p368.

This study used Morgan's classification Cell 1, which is to employ qualitative research to facilitate quantitative research. This research strategy is the same as a facilitation approach in Hammersley's work. This research used a qualitative preliminary study to contribute to a study that is principally quantitative. Particularly, a qualitative focus group method was a supplemental method for facilitating the hypotheses that were generated from a review of the related literature. New hypotheses were generated based on the results of qualitative focus groups. These hypotheses were tested with a quantitative survey method. The next two sections discuss these two approaches: the focus groups and survey respectively.

4.3.4 Qualitative Focus Group Method

This research selects the qualitative focus groups method for collecting the empirical primary data from Taiwanese consumers and the results of focus groups will be discussed for facilitating existing hypotheses and more importantly, building new research hypotheses.

4.3.4.1 Why Focus Group Method

The focus group method, which is based on the interpretivism paradigm, follows an inductive research strategy, so it is useful to understand consumers' behaviour and to explore the questions such as - are some consumers more prone to purchase private brands? For American consumers, because of the characteristics of better value than manufacturers' brands, PB has been proved as a signature of the selection of "smart consumers" (Burton et al., 1998) or "value-pursuer" (Ailawadi et al., 2001). For Taiwanese consumers, however, PB might be treated as a signature of the selection for "poor shoppers" or "smart shoppers" or any possibilities that we still do not know.

There are three main reasons why this research selected the focus groups instead of other qualitative methods such as interviews. The first reason is concerned with suitability for solving this research problem. The focus

group method works best for topics that people could talk about to each other in their every day lives, such as purchasing food in the grocery store (Seale et al., 2004, p.65). While the research purpose of this study is trying to understand reasons why some Taiwanese consumers selected PB instead of other manufactured brand, the focus group method is more suitable for this research. As had been mentioned in other research, the focus group method is useful to elicit user opinions, feelings, and views on issues arising in the conversation (e.g. Marshall and Meiselman, 2006). Therefore, it is appropriate for this research to collect the primary data through talking to a group of people to share their food and grocery shopping experiences.

The second reason concerns the variety of the results. The focus group interview is a qualitative research method and is especially useful for exploration and discovery. And as mentioned above, most existing studies were processed in either the US or the UK, there might exist some unpredicted reasons for Taiwanese consumers to buy PB related to culture or marketing environment issues. Research by Omar (1996) mentioned that unstructured focus group interviews are very successful in developing a rich view of a variety of customer experiences. Therefore, the focus groups can help this research understand the possible answers from multiple perspectives.

The last reason concerns efficiency. The focus group method can be an efficient way of soliciting views from a group of consumers simultaneously, so the researcher is able to save time (Bryman, 2004). Though some studies indicated that the focus group might bear a high cost-per-participant because of a variety of recruit merit and compensation cost, the focus group method can collect a substantial amount of useful information in one or two hours interviewing (Burns and Bush, 2003). Because the boundary and definition of the problem is given in the beginning of the interview, it is also easier to focus on the topics than using individual interviewing. Therefore, the focus group method is more efficient than other qualitative methods such as individual interviewing.

Finally, though focus group method has many advantages, there are some limitations of the focus group. The discussion of the limitations can be seen in 4.5.1.

4.3.4.2 How Focus Group Results Can Be Used

Providing new hypotheses and facilitating existed hypotheses are two main purposes for this research to use a qualitative focus group method. The focus group method is a form of group interview of people who are known to have some specific experience, therefore the effect of ‘snowballing’ or of one triggering others, is good to generate fresh ideas (Burns and Bush, 2003). One characteristics of the focus group method is that it allows one participant to hear other opinions and to share his/her experience with others. Therefore, it provides flexibility and broadness for use in exploring any possibilities for Taiwanese consumers’ reaction to PB products.

The qualitative focus group method is also good at facilitating the interpretation of the relationship between existing variables obtained from the literature (Bryman, 2004). As mentioned above, this research selected a facilitation approach, one of three mixed method-strategy researches. As stated in 4.3.3, according to the definition, the facilitation approach refers to one research strategy is employed in order to aid research using the other research strategy. Therefore, this research plans to use a qualitative focus group method as a supplemental method for facilitating the hypotheses that are generated from a review of the literature.

How to explain relationships between variables is one of the problems that frequently confront quantitative researchers. The focus group provides an opportunity for some consumers to talk about their experience in brand selection toward two retailers, Carrefour and 7-11, in Taiwan. The conversation and discussion during the focus group enable a deep understand of the interpretation of the relationship between existing variables. One advantage of the focus group is that it permits the researcher to probe the interviewee’s opinion. For example, it is very common for the

researcher to ask ‘Why do you feel ... or could you explain the reason why you think ...’. To do that, the researcher can observe more detail about the relationship between the variables.

In conclusion, the qualitative method is not only good at creating new idea but also is very helpful as a source of hypotheses that can be subsequently tested using a quantitative research strategy (Bryman, 2004). Focus group method is particularly useful for exploring consumer’s purchase experience and observing consumers’ attitude toward PB products because there is little existing research explaining consumers’ attitude to PB in Taiwan. Though the results of qualitative data have more value than simply supporting or informing quantitative research, this research tries to extend the findings of the focus groups with quantitative methods.

4.3.5 Quantitative Questionnaire Method

This research used a quantitative questionnaire method for collecting empirical primary data from Taiwanese consumers. Analysis of the data can test the generalization of the research model. For further detail about how questionnaire was being design and a full description of the measurement of the variables, please refer to Chapter 6.

4.3.5.1 Why Quantitative Questionnaire Method

This research selected a quantitative questionnaire method for collecting and testing the empirical primary data from Taiwanese consumers. The quantitative questionnaire method, which draws on the positivism paradigm, is useful in providing sufficiency for the findings from the first stage interviews. Besides, the questionnaire method, which followed a deductive research strategy, is useful in explaining consumers’ behaviour and predicting the possible answers to questions like why some consumers with specific characteristics preferred to purchase PB while others preferred other brands.

4.3.5.2 How Quantitative Questionnaire Results Be Used

After reviewed the literature, this research found that though there are some models explaining why consumers with specific characteristics prefer to select PB, most of those models were designed and tested based on the British or American consumers' perspective (e.g. Richardson et al., 1996; Burton et al., 1998; Ailawadi et al., 2001; Veloutsou et al., 2004; Mieres et al., 2006). Very few models were tested or retested to understanding the relationship between Asian consumers' characteristics and brand selection patterns. Since questionnaire method, survey research, is good at testing the relationship between known variables and giving the support from the analysis, it is reasonable for this research to select a quantitative survey.

A review of the literature also reveals that though numerous studies proposed a model with consumers' price and/or brand perception toward PB, an integrated model including price, brand and store related perceptual variables is still missing. Therefore, it is critical for this research to build a more complete model concerns consumers' price, brand and store perceptual variables. Furthermore, it is necessary to use a quantitative questionnaire method to test the variety and reliability of the model.

4.4 Research Design

This section will be structured in terms of research design. Firstly this section illustrates the research process with figure and then explains why this research selects food as a research object. Then how to organize the focus groups and process the surveys will be discussed separately.

4.4.1 Research Process

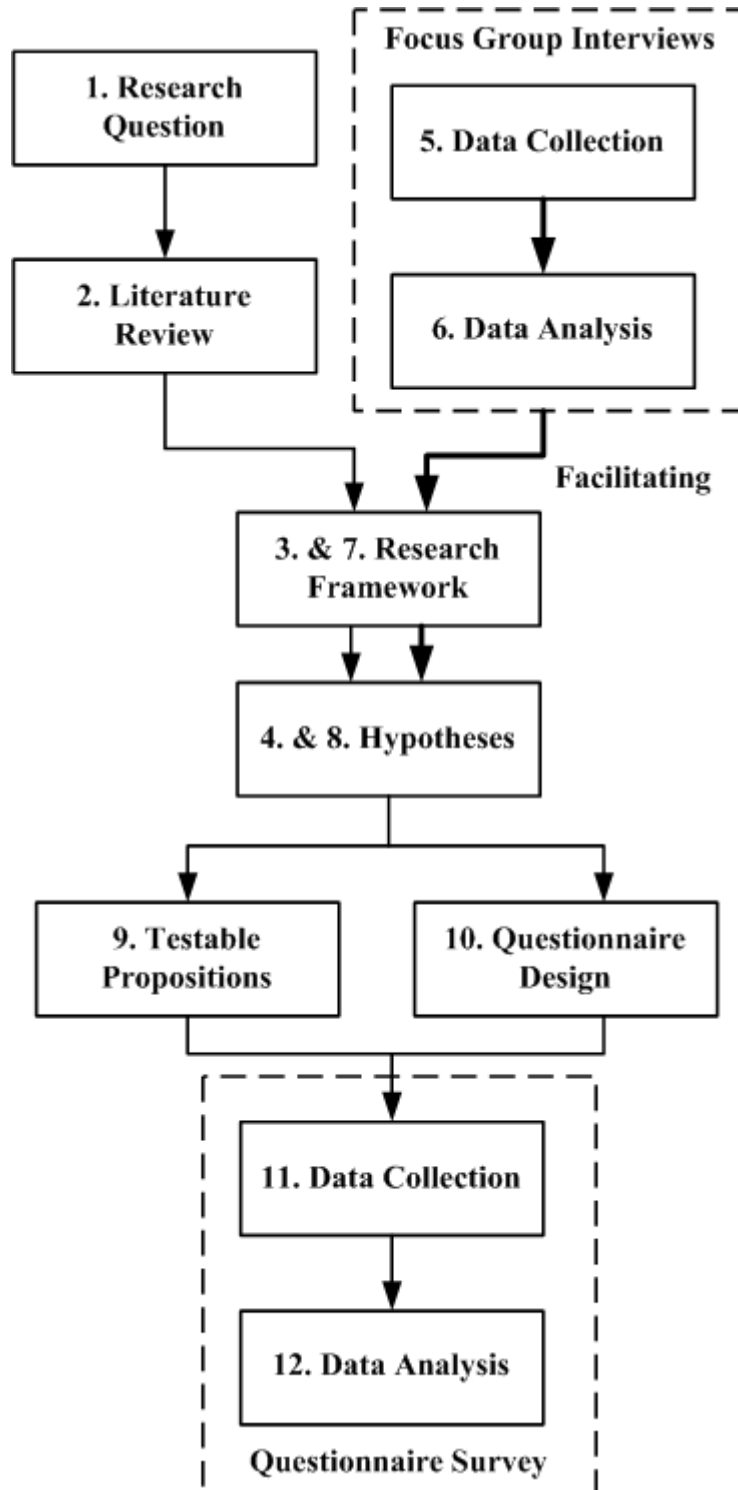
The research process can be seen as Figure 4.3. The starting-point for the research process for this study is finding research questions and then reviewing the related literature. To generate original hypotheses and robust research framework, this research not only reviewed relative literature but

employed qualitative focus group discussions. This thesis first reviews related literature to generate research hypotheses. In view of prior literature has little focus on non-UK and non-US consumers' perception of PB products, this research tends to propose a new research framework based on the results of quantitative focus group interviews.

The focus group provides an insight into the specific issues related to PB in Taiwan. This has the advantage of collecting useful data in a short time and most importantly, finding novel ideas. After the interview, the data is collected and analyzed to facilitate the research framework and generate additional hypotheses.

After building the hypotheses, the research concept is operationalized and the questionnaire is designed. The most important purpose for introducing questionnaire surveys is to test the hypotheses. The data is collected through both person-administered and computer-administered surveys. The data is then analyzed using appropriately statistic methods.

Figure 4.3 This research process



4.4.2 Product Category Selection

Selecting a specific product category for analysis is very important since product category characteristics influence consumers' perceptions of PB quality, risk and frequency of purchase (DeIVecchio, 2001). Prior studies have proven that the growth of private brands has differed among product categories (Oubina et al., 2007). In other words, private brands perform better in some categories (e.g. food, Paper Products, Plastic Bags and Wraps) than in others (e.g. personal care and cosmetics). In particular, because PB usage varies by product category, there exists a big difference when you ask a consumer to talk about his or her experience for example, of buying dairy products or toilet paper. This research focuses on consumers shopping experience on the food category for three main reasons.

Firstly, previous research studies have selected various categories such as medicines (Bearden and Mason, 1978), clothing (Birtwistle and Freathy, 1998), health care products (Herstein and Gamliel, 2006), home appliance, food (Jin and Suh, 2005) and so on. These investigations have led to a rich literature and knowledge base. Among these categories, the food category in grocery stores is most related to everyday life. However, there is relatively little literature on consumers' choice of food products (Omar, 1996) and the purchase behaviour of PB shoppers.

The second reason is the high potential growth rate of PB food products in Asia-Pacific market. There is no doubt that the changing of our world population distribution affects our food and beverage consumption. While the population of many European countries is decreasing today, the population of India and China are expected to become the number-one and two populations in the world before 2050. That means the demand for food will be a critical issue in the near future. ACNielsen (2006)⁹ indicated that, compared to 3 percent in Europe, PB products in the food category (e.g. baby food, non-alcoholic beverages, confectionery, sweet biscuits, snacks

⁹ http://www2.acnielsen.com/reports/documents/2006_whats_hot_in_food_beverage_products_a4.pdf

and dairy) have a higher growth rate above 4 percent on average in the Asia-Pacific market. Though Europe still contributes to total growth value in food and beverage today, the high potential of growth of PB food products in Asia-Pacific market makes the food category interesting to study.

The last reason is that food is one of the most developed categories in Taiwanese retailing stores. When the concept of PB was introduced by 7-11 in May 1979, a series of PB food items were offered, for example 'Heavy Cup' beverage and other ready-to-eat meals. Other retailers also offer various food items to satisfy Taiwanese consumers. Along with the well-developed grocery market, now Carrefour offers several categories of its own brand products such as home appliances, clothing, and even consumer electronic products. The food category still makes the most profits for Carrefour.

4.4.3 Focus Group Interviews

This research adopts a qualitative approach to obtain in-depth information from Taiwanese consumers. It is widely known that qualitative approach enable marketing researcher to further understand consumer behaviours including attitudes, feelings and intentions toward specific brand (Carson et al., 2001). Especially, focus group is suitable for understanding processes in consumer behaviour and motivations.

4.4.3.1 Planning the Focus Group Study

An open-ended interview guide was developed to provide an outline of the questions to be covered in the research (see Appendix A). As shown in Appendix A, part A of the focus group overview is to inform the interviewees about the purpose of the research and the procedure of the interview. Part B of the interview guide comprises research questions that began with general questions on consumer's attitudes toward PB products and more specific questions about their food shopping experiences.

The focus groups adapted a semi-structured guide with the opportunity to vary the sequence of questions to the interview progressed (Bryman, 2004). This provided the interviewer with the chance to ask further questions in response to the interviewee responses. One main purpose of selecting the focus group method was to generate fresh ideas from the discussion. It was important to use more open and general questions and to give the interviewees more opportunities to share their experiences and discuss what they saw on related issues. Therefore, this research adopts a semi-structure interview and designed an interview guide with a series of semi-structure questions (see Appendix A).

This study seeks to better understand how Taiwanese consumers react to different stores' PB products and why some consumers tend to buy more PB products while others not. This research selected customers of Carrefour and 7-11 who have extensive shopping experience in these stores. Previous studies indicated that the socio-economic variables such as age, education level might significantly affect the research results. Therefore, this research adopted a double-layer design to cluster respondents into six groups (see Table 4.4 below). Specifically, respondents were recruited by the store they shop at as first layer and age as the second layer. In this design, this research can make comparison between the layers in the design (Krueger and Casey, 2000).

Table 4.4 shows the first layer involved two different stores, Carrefour and 7-11. As discussed in Chapter 2, both stores offer their representative PB products and can be considered market leaders in hypermarket and convenient stores. Previous research also used the data from the market leaders to test the store difference. For example Omar (1996) collected his data from Sainsburys, Tesco, Safeway, Asda and Kwik-Save in the UK to compare the shopping habits for national and own label brands. Similarly, McGoldrick and Marks (1987) chose Tesco and Sainsbury in the UK to compare the price awareness of each retailer.

Table 4.4 Focus group design

Layer 1	Layer 2	Schedule (2007)	Numbers
	Audience 1 (< 25)	Group 1 September	6
Carrefour	Audience 2 (> 25 50)	Group 3 October	6
	Audience 3 (> 50)	Group 5 November	7
	Audience 1 (< 25)	Group 2 September	9
7-11	Audience 2 (> 25 50)	Group 4 October	11
	Audience 3 (> 50)	Group 6 November	6

The second layer involves the age criteria of consumers. To reflect difference experiences of buying PB in Taiwan, additional questions about the shopping behaviour and demographic characteristics were at the recruitment stage. Participants were divided into three age groups: less than 25, 25-50 and over 50 years old.

In Chinese culture, age of 25 represents the age that the man has graduated from college and started to build his own family. Of course, many people still get married before 25 or wait until after 25, but it is usually true that younger consumers have relatively less shopping experience and less income but a greater willingness to try new products. Compare to them, consumers who are over 50 have a higher social status (especially in Chinese society), stable income and sophisticated shopping skills. Therefore, this research used age to separate the interviewees into three groups.

Moreover, because this research tries to identify the connection between Taiwanese consumer characteristics and PB purchase, it is most important to talk with consumers who usually buy and who rarely buy PB products in their everyday life. It is important to notice that though Carrefour and 7-11 introduced their own brand products for some time, some consumers who have shopped in their store still do not know about the existence of private brands. For instance, it is surprising that one consumer told the interviewer that even though he bought food in the 7-11 consistently, he did not know

that 7-11 offers its own brands on the shelf. Therefore, before selecting the correct interviewee, some basic questions such as ‘do you buy Carrefour brand food products regularly?’ and ‘how many kinds of 7-11’s PB food products have you tried before?’ are used.

In addition, this research excluded buyers who have no income and/or are full time students. Though the first and second groups are based on the night school students who studying in National Taipei College of Business, they all have full time or part-time job after school. This means that they all have the ability to allocate his/her income and make decision by him or herself. One exception is that this research includes housewives who have no independent income but have responsibility for buying the food and everyday needs for the family.

4.4.3.2 Sampling Procedure

This research used a purpose sampling method that subjects were selected because of some characteristic to recruit participants. Specifically, this research focuses on consumers who have experience of either buying Carrefour or 7-11’s PB products. Thus consumers who had no experience in buying PB products were excluded from the samples. Though the focus group researchers do not aim for a representative sample of population, they try to generate discussion that will extend the range of our thinking about an issue (Seal et al., 2004, p68). Therefore, this research still tries to talk to various consumers in the focus group.

Following this principle, the focus groups were designed into six groups (see Table 4.1) and each group profile had a spread of gender, occupation, purchase frequency, education, and income level. In order to invite the interviewees that met the requirements, a simple questionnaire about the basic information (see Appendix A) was processed from previous paper work. All these criteria are important factors that have been discussed in previous works (e.g. Dick et al., 1995 and Omar, 1996; Richardson et al., 1996; Sethuraman and Cole, 1999; Ailawadi et al., 2001; Baltas, 2003;

Veloutsou et al., 2004; Baltas and Argouslidis, 2007).

Those who satisfied the requirements were invited by interviewers and asked if they would like to participate in research for an academic doctoral thesis project regarding shopping behaviours. Then they were told that the interviews would be audio recorded. In order to increase the willingness to join the interviews, a small present (e.g. Twinning tea or Scottish shortbread) was offered. To reduce the nervousness of the interviewee, female focus groups members were allowed to bring her husband or one friend with her. This is because Asian people, especially females, tend to avoid attending a meeting alone due to culture issues. It is inappropriate for a female go to a party hosted by a male since most Asian societies are still very conservative.

The first stage of focus groups were carried out from September to November 2007 in two major cities in Taiwan. The first two focus groups were conducted in September 2007 in Taipei (see Table 4.1). One group focus on shopping experience of Carrefour whilst another of 7-11. These two groups included younger consumers aged twenty-two to twenty-five who had limited income. The results of these younger, less experience, lower income consumers are very helpful to compare with the other groups. These meetings took place in the teashop near the National Taipei College of Business and the staffs in the university were informed first.

In Taiwan, the teashop is a popular place for people to chat and have a soft drink. These younger consumers were very willing to hold the meeting in the teashop. Though the environment of teashop is not as comfortable as meeting room or participant's home, the teashop provides an acceptable space to hold the focus group. A free lunch meal and soft drink were offered after the interviewing.

A further two groups were conducted in October 2007 in Taichung. These consumers aged 25 to 50 had shopped in either Carrefour or 7-11. These groups comprised six and eleven consumers and had an older profile than the Taipei groups. Group participants included teachers, engineers and

factory workers. There older consumers had relatively more shopping experience, stable income and social status. Researchers conducted these two groups' discussions in the interviewer's house kitchen and in the meeting room in the factory.

The last two groups were conducted in December 2007 in Taichung. These groups comprised six and seven members of senior consumers. Some members are retired teachers and workers and some are senior managers in the company and still some are housewives. These consumers have considerable of shopping and life experience and have higher income and social status. Researchers conducted these group discussions in a separate room in a restaurant and a free breakfast was offered after the interviewing. The results of the interviews are transcribed subsequently and then the questionnaire questions constructed from previous studies were adapted in the light of focus group responses.

4.4.4 Questionnaire Surveys

This research adopted a quantitative approach to obtain extensive information from Taiwanese consumers. This paper draws on data from both computer-administered and person-administered surveys undertaken in Taiwan. Computer-administered surveys are fast, capable of using pictures or graphics, able to capture data in real time, and less threatening for some respondents (Burns and Bush, 2003). Person-administered surveys were used to compliment the on-line surveys and to collect data from specific groups of consumers under represented in the computer surveys. Subjects were intercepted outside the Carrefour stores in three cities and one suburban area. Four research assistants conducted the surveys over a three-week period in the spring of 2008. The detail of surveys process and design of questionnaire will be discussed in Chapter 6.

4.5 Limitations of Research Methods and Strategies

This research attempts to follow the mixed method of an inductive and a

deductive research strategy in a single project. However, there is no perfect research strategy but only appropriate strategy. Both focus groups and questionnaire surveys have some limitations.

4.5.1 Limitations of Qualitative Focus Group

Though focus groups have advantages in understanding Taiwanese consumers' attitudes and purchase behaviour toward PB product, the usage of focus group method still has some limitations. These limitations include the difficulty in organization and analysing (Bryman, 2008).

Hosting a successful focus group discussion needs experience and training. As a PhD dissertation, there are time and financial cost limitations to organize the focus groups. Specifically, the researcher has to recruit the appropriate people and secure the agreement of them to participate in the study. Though small payments made to induce participation, it costs money to buy beverages, gifts and meals.

Analysing focus group discussion data is not easy. A huge amount of data from observation and recording can be quickly produced after discussion. However, multiple conclusions might exist because of different individual and group perspective. Since the main purpose for utilizing focus group is to facilitate existing research hypotheses and to create a new research framework, the author has to accept influence from personal experience and organize the experience. It costs much time to analysis and organize the data after all.

To overcome the limitation of focus group discussions, some actions were taken. First of all, though the results of focus group offer many fresh ideas for researcher, the diverse data is sometime very difficult to analyse. However, this is not a serious problem since this research offers an open-ended interview guide offering an outline of the questions to be covered in the research. The interview guide (see Appendix A) is very useful to help participants to focus on the questions that the researcher need.

Secondly, this research faces the reality and recruits reasonable amount of participants. It is important to note that this research can be potentially expanded further to either larger sample or multi-countries study in the future. Finally, to save time to analysis and organize the data from discussions, a review of relative literature was processed before focus groups to give a blueprint of research framework. Some critical studies gave this research a clue to integrate various opinions.

4.5.2 Limitations of Questionnaire Surveys

This research adopted a quantitative approach to obtain extensive information from Taiwanese consumers. However, using questionnaire surveys might have initial problems including sample coverage and sampling frame. Sample coverage problem is expected to be more seriously in on-line surveys since online surveys are restricted to internet users and internet users may have certain characteristic such as high education and high income (Chen and He, 2003). In short, on-line survey might be difficult to reach specific groups of consumers.

To reduce sample coverage problem, this research used person-administered surveys that have advantage in targeting specific groups of consumers. Specifically, this research will first collect data from computer administered surveys and then identify what groups of consumers are failed to generate response from on-line surveys. Person-administered surveys will be used to collect data from specific groups of consumers that may be difficult to reach using the on-line survey. Further detail will be discussed in Chapter 6.

Additionally, sampling frame problem might have happened if this research did not well define the target consumers. The sampling frame is Taiwanese grocery consumers who have experience of buying PB food products. In addition, because PB usage and quality position might vary by retailer (Shaw et al., 1992), this research targets Carrefour, a French international hypermarket chain and 7-11 a Japanese convenient store chain. They are

both the largest chain grocery and convenient store in terms of store number and revenue in Taiwan. Two filter questions were used in the questionnaire to identify for consumers who had shopped PB products at these two stores. Further detail will be discussed in Chapter 6.

4.6 Summary

The chapter has examined the entire process of the research design, including research questions, research strategy decision, research process and two research methods. To fill the gaps of prior studies, this research proposes three research questions and three research purposes. This chapter then has explained that a mixed method strategy has some advantages to combine the advantage of qualitative and quantitative method in this research. The entirely research process has been presented in Figure 4.3.

This research selects facilitation approach that the focus group method is employed to aid develop new research hypotheses and to consolidate existing hypotheses. The process of the focus group interviewing has been discussed in detail, as it is the critical rule in facilitating the hypotheses that can be tested with quantitative surveys. The backgrounds of six groups of interviewed representatives have been presented in Table 4.4. The issues of managing the fieldwork in reference to the location, people and time related to this study have been also discussed.

Chapter 5 Focus Group Interviews and Results

5.1 Chapter Overview

In Chapter 4, this research stating that how mixed research strategy been used and how the focus group been design and processed. Also, in the last chapter, this research explained how qualitative focus group method was designed to generate some new hypotheses and to consolidate existing hypotheses. In this chapter, the results of focus group will be presented and discussed.

This chapter first proposes a new extended model based on the findings from the focus groups and literature review. A new intervening variable, PB attitude is introduced. This chapter then discusses the reasons for some Taiwanese consumers tend to or tend not to select private brand (PB) instead of other national brand products. Based on the results of interviewing, this research proposes a complete research framework. The focus group results indicate that price, quality and risk are directly critical factors while familiarity with PB, store reputation reliance and innovativeness are indirectly critical factors that have effects on PB selection. All these variables affect Taiwanese consumers' attitude toward PB and intention to purchase.

The next section looks at the focus group results and relative findings. To generate robust hypotheses, focus group findings were discussed with previous research results. Meanwhile, some findings, not directly found in previous literature, were discussed and organized into new research hypotheses.

5.2 The New Extended Research Framework

The focus groups provide useful insights into the reasons for Taiwanese consumers' purchase of PB. This primary data led to the construction of a new extended research framework that differs from the previous research framework. However, in view of the naturally complex problem of focus groups, this research adapted a reasoned action model (Ajzen and Fishbein, 1980) to offer a guideline for analysing and to clarify the indirect correlations among variables.

Reasoned action models were proposed by Ajzen and Fishbein (1980), and indicated that consumers' perception of the brand might influence brand preference and then purchase intention. Many previous studies applied this model in understanding consumers purchase behaviours. For example, Burton et al. (1998) found in a grocery store setting that PB attitude was positively related to the actual percentage of PB purchase on a shopping trip, and PB attitude was the strongest predictor of the percentage of PB purchases in relation to other price perceptions, deal perceptions, and other marketing related constructs. More recently, Jin and Suh (2005) also applied a reasoned action model in a study of a discount store in Korea and their results indicated that PB attitude positively affected the purchase intention of PB.

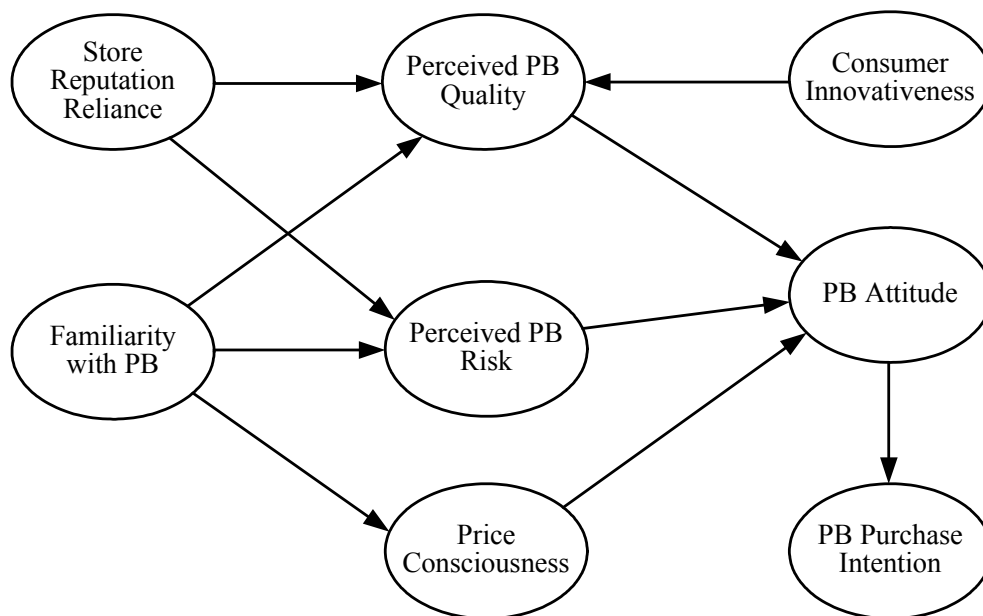
Figure 5.1 represents the new extended research framework that a new intervening variable, PB attitude is introduced and this new model proposes that a number of direct and indirect factors linked to consumers' purchase intention toward PB. The direct links among consumer perceptual, personal factors and PB purchase intention has been discussed in Chapter 3. And these direct links can also be found in the focus group discussion.

However, there are some indirect links that can rarely be found in the previous literature. One example of this is that most previous studies indicated that as consumers become more familiar with PB, they have

higher propensity to buy it (e.g. Richardson et al., 1996). This research further discusses the indirect correlation between consumers' familiarity with PB and their perception of PB quality, perceived risk of PB and price perception. This research argues that consumers' familiarity with PB will influence their PB purchase intention through better perception of quality, fewer perceived risk of PB and stronger perception of price saving (see Figure 5.1 below).

Another important element of the research framework is that the consumers' decision whether to buy PB is driven by their attitude towards PB. A review of the literature reveals that both personal and perceptual factors affect the purchase behaviour in a complicated way. While some research such as Dick et al. (1995) proposed a direct relationship between perceptual factors and PB purchases, others such as Burton et al. (1998) suggested a more indirect relationship. These direct relationships were discussed in Chapter 3 and this chapter will focus on the indirect relationships among the variables.

Figure 5.1 A new extended research framework



To sum up, this research argues that the inherent variable 'PB attitude' is an important critical and direct factor predicting the Taiwanese consumers' purchase of PB. Specifically, consumers' attitude toward a specific retailer's

PB might significantly influence their purchase intention toward the PB. Meanwhile, three perceptual variables including price consciousness, perceived quality and perceived risk of PB are all critical factors predicting Taiwanese consumers' attitude toward PB. In Chapter 3, this research has identified these six factors that have more or less predictive power toward PB purchase and some of these factors have indirect effects in predicting Taiwanese consumers' purchase of PB. All these indirect effects will be discussed below.

5.3 The Focus Group Results

As mentioned in Chapter 4, this thesis uses a qualitative focus group method as a supplemental method for facilitating the hypotheses that are generated from the literature review and more importantly, creating new hypotheses. Therefore, all correlations shown in Figure 5.1 below can be found in the results of focus group discussion.

5.3.1 Innovativeness

This research first defines consumers who have higher acceptance of novel products as innovative consumers. From consumers' perspective, whether consumer innovativeness is positively or negatively correlated to PB attitude depends on the retailers' capability to introduce new PB products. If they regard creative PB products as good quality products, they might have higher incentive to buy it. The results of the focus groups showed that while some consumers had higher willingness to accept novel or new products, others tended to avoid buying them. Some consumers even indicated that 7-11 renews its PB products so quick that sometimes they could not find the product they bought last time. For example, one senior woman in discussion said:

Consumer: I like 7-11 because it offers new products often, and I like to try the new stuff. For example its beverage, lunch box or snacks often introduces the new flavour. But sometimes the speed that they weed through

the old to bring forth the new so quickly that I can't buy my favourite product I tried before anymore. (7-11 Group 3)

As Burt (2000) pointed out providing innovative and high quality PB products had become a major tactic for a retailer to compete with other retailers, this senior woman revealed a fact that most Taiwanese consumers have perceived that 7-11 has the ability to offer new PB products quickly. More importantly, innovative consumers like she have more positive perception of PB quality since they enjoy trying new products.

Also, consumers' perceptions of innovativeness also build on the variety of selection of PB product. For example, one consumer talked about his observation on the selection of Carrefour brand products. He said:

Consumer: Carrefour introduces more and more kinds of private brand merchandise at present, and begins to promote its products through advertisement. So I think this brand can be trusted more and more deeply for me. (Carrefour Group 2)

The variety of PB products partly contributes to the increased global sourcing and retailer internationalization. These activities add variety to the range of PB because retailers have ability to import their own brand products from different countries. For example, in Taiwan, Carrefour introduced more than 1,500 PB products and some of them are produced outside Taiwan. These exotic PB products are produced in other countries such as Korea, France and Japan (see Picture 5.1). These PB food products increase the variety of PB and act as a lure for innovative consumers. A male consumer talked about his shopping experience in Carrefour and noted that the variety of private brands is increasing on the market. He said:

Consumer: Recently, I notice that Carrefour introduces various private brand products from different countries, such as Japanese or Korean seasoning and French cheese and so on. I think it will raise my acceptance degree to its own label brand. (Carrefour Group 2)

Picture 5.1: Carrefour's multi-fruits juice from France (Left) and instant noodles from Korea (Right)



In the meantime, retailers now have the ability to invest in research and design of their own brand products since some international retailers such as Carrefour and 7-11 have accumulated numerous experience of operating private brands in original countries. For example, Collins and Burt (2006) found that Irish and British retailers had ability to manage their vertical relationships for the purpose of utilizing the R&D capabilities of a specific supplier, and this enable a retailer to obtain a higher price for its products. Therefore, with the R&D supports from the suppliers, it is reasonable to predict that retailers can offer innovative PB products to their customers.

This is reflected in some of the comments from the consumers. Participant points out that some specific products such as 7-11's fresh mango food, cake or tea cannot be found in any other stores. These innovative unique products enhance the consumers' perceived quality of the 7-11 PB. For example, a female worker joyfully said:

Consumer: 7-11 sells some products that cannot be bought at the other shops. For example, in the mango season it will cooperate with farmers to put out fresh mango food, cake or tea. Similarly, in the strawberry season, it offers the product that is made of fresh strawberry, which can't be seen in other shops. (7-11 Group 2)

Results from the focus groups also reveal that how often a retailer can offer

new PB products to their customer affects the consumers' attitude toward its PB. In fact, since most grocery retailers do not own manufacturing assets, the frequency of a retailer to offer new PB depends on close relationship with local suppliers. This might partly reflect fact that most international retailers entered the Taiwanese market by established joint ventures with local food manufactures. As mentioned in Chapter 2, both Carrefour and 7-11 used a joint venture strategy with the largest Taiwanese food manufacturer "President Corporation" when they entered the Taiwanese market.

Interestingly, related supported arguments can only be found in the discussion in the 7-11 groups. While 7-11 has the ability to renew its PB product or change the ingredients of the same product, innovative consumers notice the change and have more positive attitude toward its PB. This is reflected in some of the comments from the consumers. For example:

Consumer: I like shopping at 7-11 because it renews its products quickly, such as its Slurpy ice introduces a new taste about couple weeks. Sometimes it is because you want to a new taste and are willing to consume more often. Other products such as prepared food and bread also offer new taste frequently. (7-11 Group 1)

Consumer: I always bought sandwich and lunch box there because I think they offer a variety of food and the price is inexpensive. Even the same product they often find something new, for example its lunch box changes its ingredients very often. (7-11 Group 1)

In addition, as mentioned in Chapter 2, Western consumers might not regard PB as an innovative brand since the long history of PB in the US and European markets. However, as private branding in grocery stores is relatively new strategy to Taiwanese retailers, the focus group results show different conclusion from the Western consumers. Specifically, Taiwanese consumers treat these foreign retailers' PB as a symbol of novel or

fashionable brand. Consumers with higher innovativeness have favourable attitude toward PB and exhibit higher purchase intention of PB. Therefore, the relationship between consumer innovativeness and attitude toward PB depend on the retailer's ability to offer various selections and renew its PB products quickly.

In conclusion, the results of focus group discussion show that the consumer innovativeness affects PB attitude through increasing their perception of PB quality. Previous research on Korean consumers also had the same conclusion. Jin and Suh (2005) verified that since the format of discount store is relatively new to Korean markets, innovative Korean consumers are more likely to have favourable attitude toward PB. Their research further indicated that when the retailer has the ability to introduce novel PB products, innovative consumers would evaluate these products as higher quality and to be more likely to have favourable attitude toward PB.

However, the results of focus group discussion also show that though participants perceived some degree of innovation at Carrefour's PB products, most findings are specific to 7-11. Based on the finding of the focus group discussion, this research postulates that.

H2-2: Greater consumer innovativeness results in higher perceived private brand quality.

H2-3: H2-2 will differ by stores.

5.3.2 Price Consciousness

The results of focus group discussion reveal that price saving is the most critical reason for Taiwanese consumers to select PB instead of other brands. In fact, price consciousness influences consumer's perception in favour of lower priced products. These lower price brands can be PB or any other national brands. Since private brands typically follow a low-cost strategy by keeping advertising and promotion costs low (DeIVecchio, 2001), price

saving is an important characteristic for these products.

Though a number of private brands have developed from generics to extended private brand and, at the moment, they have come to constitute a corporate brand for some retailers, price saving is still a critical reason for consumers to select PB products. As discussed in Chapter 3, most previous studies consistently identified a significant and positive relationship between both price consciousness and PB purchase behaviour. Some research such as Batra and Sinha (2000) even identified that price consciousness was the strongest predictor for increasing PB purchase.

Results from the focus groups do find some support for the relationship between price consciousness and PB purchase. Though some consumers might notice that the packaging of a specific retailer's PB is not so high quality, they still buy the PB because of low price. Five of the six participants in the Carrefour group 1 all indicated that they buy Carrefour's PB because of the benefit of price saving. In other words, price is the most important trigger for these young participants to buy Carrefour's PB. The following reflect of experience of these young participants to buy Carrefour's PB products.

Consumer: I think the packaging of Carrefour is mediocre, what I concern is its price. (Carrefour Group 1)

Consumer: I bought its biscuits last time, but I think that though it is cheap, the taste and flavour are not so good. The reason I bought it was the low price and just for trying, but the result made me disappointed. (Carrefour Group 1)

Consumer: I like to buy its dumpling because the price is lower than other brands of frozen dumpling, and the quality is also acceptable after eating. (Carrefour Group 1)

Consumer: I choose to buy Carrefour's biscuit because the price is

relatively low, but after tasting, I find the flavour lighter. (Carrefour Group 1)

In addition, it is interesting to note that though Carrefour now offers different tiers of PB products, from low-price value PB to higher price premium PB, in general, most Carrefour consumers still treat Carrefour brand as a cheap brand. One possible reason is the unfamiliarity with Carrefour's PB. The short history for Carrefour offering different tiers of PB products in the Taiwanese grocery market results in consumers' unfamiliarity with its strategy (see Chapter 2).

In interviews, this research also finds that some consumers might mechanically select the cheapest items in the category. Though previous studies reported that the price gap between leading national brands and private brands was reducing (e.g. Laaksonen and Reynolds, 1994; Burt, 2000), most private brands sold in Taiwan were priced below leading national brands. Consumers who like to save money might select the "cheapest" or "lower price" PB instead of other brands. These consumers do not care about what brands they bought but as long as it is the cheapest. For example, one participant in the Carrefour group 2 and another in the Carrefour group 3 said:

Consumer: Last time, I bought some the Carrefour brand's bottled mineral water, because it was the cheapest brand in the mineral bottled water category. (Carrefour Group 2)

Consumer: Usually I'll select one cheapest product, and then find that is Carrefour brand products while I go back. (Carrefour Group 3)

However, the correlation between price consciousness and consumers' attitude toward the PB products might differ by stores. Dhar and Hoch (1997) suggested that the exact impact of the variables depended on the underlying quality of PB in a category. When PB quality was high, competition at retail and brand level was more important. In contrast, price

related variables mattered more in the low quality category. Therefore, the importance of price consciousness might vary depending upon the quality of the retailers' PB.

In the meanwhile, while some retailers may have success in cost driven strategy, others may have triumph in added value strategy (DeChernatony and McDonald, 1992). Applied to food retailing context, this may be achieved in a number of ways. For example, retailers can offer innovative products, better packaging design and improvement in product quality to add value in their PB products.

The results of the focus groups reveal a fact that whilst Carrefour has an advantage in offering low price PB products, 7-11 has superiority in offering added value PB products. In the Carrefour groups, most consumers agreed that private brands offered more price savings than national brands. But in the 7-11 groups, most consumers did not agree that the price of 7-11's PB products was lower or much lower than leading national brands. Some 7-11 consumers argued that the price of PB sold in 7-11 is not cheaper. In some cases, the price of 7-11' PB even higher than other manufacturers' brand. For example, one woman mentioned about the average price of 7-11's PB products is higher than other stores. She said:

Consumer: 7-11 promotes its own brand usually, and sometime the promoted price is cheaper than some hypermarkets. However, its average price is higher than other discount stores. (7-11 Group 3)

She further explains that because 7-11 usually offers various promotions such as a discount coupon or buy one get another one free strategy to promote its own brand products, she usually use the coupon to save some money. But if the product is not on promotion, the average price is usually little higher than other discount stores such as Carrefour and/or RT-Mart.

In the meanwhile, most participants argue that 7-11's own brand products have better quality than other competitors. In fact, few consumers select

7-11's own brands to save money but for other reasons such as innovativeness or convenience. For example, in the 7-11 group 1, one young consumer says:

Consumer: I choose 7-11's own label merchandise simply for its convenience, better quality, not for getting a bargain. In fact, I don't think it is cheap. (7-11 Group 1)

In conclusion, consumers' price consciousness toward a specific retailer's PB critically affects their PB attitude and purchase intention. Results from the focus groups found that while price conscious consumers tend to buy more Carrefour's PB because of price saving, they might tend to avoid buying 7-11's PB. That means the results of focus groups suggest that Carrefour has advantage in offering lower price PB products than 7-11. Based on the discussions above, this research postulates that:

H3-2: Greater price consciousness results in more positive PB attitude.

H3-3: H3-2 will differ by stores.

5.3.3 Perceived PB Quality

In the focus group discussions, perceived PB quality is the most critical reason for consumers to purchase PB products. Undoubtedly, while the objective quality level of PB products has been steadily increasing, it emerges that the primary determinant of PB success is the ability to meet an acceptable level of perceived quality (Hoch and Banerji, 1993; Richardson et al., 1996; DelVecchio, 2001). In other words, the perceived quality as well as the subjective quality of products is a significant aspect affecting a brand's performance (Aaker, 2004). When a consumer perceives a better quality brand, he/she may have a more positive attitude and higher purchase intention toward the brand.

As has been discussed in Chapter 3, this research used absolute PB quality

instead of relative quality of PB. However, how do Taiwanese consumers 'judge' the quality of PB? The focus groups revealed that most consumers tended to use cues related to the product such as product packaging, price, manufacturer, and country of origin to predict product quality. For example, one female consumer in the Carrefour group 2 talked about how she judged the quality of PB products. She said:

Consumer: Usually when I buy Carrefour brand products, I pay more attention to its OEM manufacturers, and see whether the company is a famous manufacturer or not (Carrefour Group 2). That means the consumer chooses to use manufacturer information to predict how good the quality of Carrefour branded products are.

Previous research also identified the importance of packaging design for own-label food brands. For example, Wells et al. (2007) indicated that over 73 per cent of interviewed consumers stating that they relied on packaging to aid their decision-making process at the point of purchase. This finding is in line with one female participant's argument. She uses product packaging information to predict the product quality of Carrefour brand. In discussion, she said:

Consumer: I always bought its square cookies. The reason is mainly because of its small package design. On the one hand, the small package looks more delicious, and on the other it is more convenient to carry and suitable for taking some in hand to eat while going out (Carrefour Group 2).

Also, previous research revealed that grocery items typically belong to the convenience goods category with the purchase decisions often based on past experience (Vahie and Paswan, 2006). Therefore, consumers might use other cues related to their previous personal experience and/or their friends' experience such as word-of-mouth in the same brand to predict the product quality. For instance, one participant in the 7-11 group 1, another in the Carrefour group 2 said:

Consumer: My friend told me that their beverage tastes light. Since then when I buy beverages, I try not to buy theirs (7-11 Group 1).

Consumer: I once wanted to buy its raw sliced fish, but the salesman in the store advised me not to buy because the products were not fresh. I think they must have some internal control management problem, if not why do they advise not to buy the products of them? (Carrefour Group 2)

These two cases indicate that they choose to use word-of-mouth information to predict the product quality of 7-11 brand products. As a Chinese proverb says “As the good deeds are never heard of outside the door, but bad deeds are proclaimed for three hundred miles”, these two cases are talking about the bad deeds of PB products. However, the literature in PB rarely mentions the effect of word-of-mouth because on the one hand it may be difficult to identify and measure the effect of word-of-mouth, and on the other hand it may be less important in the long PB development history countries. But future research might consider the impact of word-of-mouth in the short PB development history countries.

The discussion above shows a number of consumers are very concerned about the perceived PB quality when deciding to purchase PB products. Specifically, results from the focus group reveal that when some consumers perceive better quality of a specific retailer’s PB products, they have better attitude toward the PB and have a higher intention to buy it in the future. Interestingly, consumers who perceive PB as a good quality brand have a more positive experience of purchasing PB and focus on positive aspects such as good taste or freshness. This research expects that consumers who perceive higher quality of PB might have more positive PB attitude and result in higher purchase intention. These positive relationships were reflected in some of the comments from the consumers. For example:

Consumer: I go to 7-11 three times a week. The main reason why I choose the goods of 7-11's own brands is because the goods that they offer, such as bread, are comparatively fresh. (7-11 Group 2)

Consumer: I like to buy 7-11's rice dumpling and lunch box very much, because they are very delicious. (7-11 Group 3)

Consumer: I especially notice and buy the Carrefour brand products, such as its crisp square biscuits, and I will go to the biscuit area to choose them specially. (Carrefour Group 3)

Consumer: Before Carrefour brand products had been offered, I bought many brands products at will. But after I choose several items and try them out, I am very satisfied with Carrefour brand products. Now I am likely to buy Carrefour brand products. (Carrefour Group 3)

While some consumers noticed their positive quality perception of private brands, others held negative perceptions. The results from the focus group discussions found both positive and negative views the quality of Carrefour and 7-11's own brand, but there were more negative comments (e.g. light, not fresh) in the Carrefour groups discussions and more positive comments (e.g. delicious, fresh) in the 7-11 groups.

However, both Carrefour and 7-11's consumers care about the product quality and it was the most widely discussed topic. Interestingly, all negative comments (e.g. not delicious, awful) are all from Carrefour groups. There is almost no negative comment on 7-11's food products. These results can be concluded as if a consumer perceives a specific retailer's PB to be low quality; he/she has a more negative attitude toward its PB and might refuse to try it in the future. These negative commons were summarized as the following:

Consumer: When I see Carrefour brand products, usually I will first assume that they are lower price. If I want to buy its private brand food, I will consider more cautiously whether to buy or not. It is food after all, so the demand for quality is of course a little higher. (Carrefour Group 2)

Consumer: Their bread was often good at appearance but not delicious after eating, and later I bought less. (Carrefour Group 3)

Consumer: Yes, Yes, their brand is only good-looking but not delicious really. (Carrefour Group 3)

Consumer: I will try my best to avoid buying some prepared foods from Carrefour, because I have tried the lunch box and sushi of Carrefour, and they are awful. (Carrefour Group 3)

In conclusion, high quality PB helps retailers to maintain a competitive advantage that requires building stronger PB programs rather than simply “selling other people’s brands”. Though PB products are generally perceived to be inferior to national brands in terms of quality (Richardson et al., 1996) and the results of focus group discussions reveal some negative perception of PB quality, this research found more positive evidence that there exists a strong causal relationship between perceived quality of a specific retailer’s PB and consumers’ attitude toward their PB. Based on the results of focus group discussions, this research postulates that:

H4-2: Greater perceived private brand quality results in more positive PB attitude.

5.3.4 Perceived Risk

The results of focus group found a strong negatively casual relationship between perceived risk of PB and consumers’ attitude toward the PB. In Chapter 3, this thesis has discussed how consumers’ perceived risk toward a specific retailer’s PB affects their purchase intention toward the PB. In this chapter, further primary evidence is provided from the focus groups.

Generally speaking, when consumers perceive a high risk in a specific brand they avoid buying the brand. One of the principal ways consumers seek to alleviate greater perceived PB risk in a category is by looking for the brand

he or she trusts. Given the stereotype of private labels as “risky” alternatives, manufacturers’ brands have some advantage in earning consumers’ trust and reducing their perceived risk. For example, some international manufacturers’ brands such as Coca Cola and Nestlé regularly invest billions of dollars in advertising to reduce the consumers’ perceived risk toward their brand.

Like these international manufacturers’ well-known brands, some international retailers such as 7-11 and Carrefour also have the ability to promote their own brand to reduce their consumers’ perceived risk toward their PB. Baltas (1997) found that consumers prefer the guarantee of a retail brand in comparison to the risks associated with buying from lesser-known manufacturers’ brands. However, perceived risk toward PB varies among consumers. While some consumers treat PB as a lower risk brand, others have different opinion. The results of focus groups showed both Taiwanese consumers’ trust and distrust in related to PB.

Some Taiwanese consumers have lower perceived PB risk toward a specific retailer’s PB because of satisfaction with previous shopping experience. On the one hand, retailers now have ability to offer higher quality PB than before and on the other hand, they have become more experienced in handling marketing tools such as sales promotion and advertisement. They have more chances to earn trust from consumers. Therefore, it is no surprise that as consumers’ experience with PB products is more positive than before. Once they have a better attitude toward PB, they select more PB products. This is reflected in some of the comments from the consumers.

Consumer: Carrefour introduces more and more kinds of private brand merchandise at present, and begins to promote its products through advertisement. So I think this brand can be trusted more and more deeply for me. (Carrefour Group 2)

Cunningham (1967) described perceived risk as comprising two components: uncertainty and adverse consequences. Therefore, how can

retailers minimize the uncertainty and adverse consequences might determine consumers' perceived risk toward their PB product. Results from the discussions revealed that some retailers now offered various guarantees to reduce consumers' uncertainty. These guarantees include adding no artificial preservatives to their food and price refund if the consumer is unsatisfied with their PB product. These guarantees can reduce the consumers' perceived risk toward their PB products and result in higher purchase intention. For example, as one male participant in the 7-11 group 1, another female participant in Carrefour group 3 commented:

Consumer: I always bought sandwiches and rice dumpling at 7-11, because their unit price is lower, and they emphasize adding no artificial preservatives to their food products. (7-11 Group 1)

Consumer: The quality of Carrefour's own-label brand products makes me feel relatively reliable, especially products like meat or fresh fruit. When we buy something with unpleasant smell or not fresh private brand products, they will be responsible for it, even when the fruit is cut or the package has already been opened. They will return the price or give you a new one instead. (Carrefour Group 3)

In interviews, this research also found that some consumers had higher perceived risk toward a specific retailer's PB because of bad experiences in one product. A specific bad experience would seriously affect their perceived risk towards other PB products in general. This is particularly important as one of the characteristics of PB is a broader line of categories and most chain retailers hold more than a thousand items of the private brands in a store. If consumers had a bad experience at the first time, they might see PB as unreliable brand and refused to try other products with the same brand name. For example, one participant talked about her unhappy experience of trying Carrefour's food products. She said:

Consumer: I tried Carrefour's sandwich biscuits and found the taste very terrible. Later I doubted all of the Carrefour brand products' quality for a

period of time. (Carrefour Group 2)

The consumer further explained that she switched to other national brands' sandwich biscuits because of the miserable trying Carrefour's PB food products. She avoided buying all Carrefour's PB products for a period of time. Therefore, while consumers perceive potential risk from buying PB, they might deal with this risk by buying well known, highly reputed, or highly advertised national brands.

Higher perceived PB risk would lower consumers' purchase intention toward PB because generally speaking, people tend to avoid potential risk. And these potential risks might come from various dimensions such as functional, social, physical and financial risk (Jacoby and Kaplan, 1972). In discussions, this research found some examples that were related to the perceived risk of PB. For example, one male participant in the Carrefour group 3 concerned with the physical risk (relative to the health or physical well-being) and the later, a female participant in Carrefour Group 3 concerned with the social risk (relative to the perception of other individuals about the consumer).

Consumer: I will avoid buying the processed foods of Carrefour, because I will be afraid those are made from spare or stale meat. For example the retailer may utilize minced meat that cannot be sold out to make sausages. (Carrefour Group 3)

In view of the cheaper prices of private brands, some consumers might worry about if they purchase private brands, other individuals might treat them as cheap buyers. For example, one consumer in Carrefour group 3, she giggled and explained the reason why she bought the PB for "gaining small advantages". From her body language, the author speculates that she felt shame on buying low price PB products.

Consumer: Being keen on gaining small advantages, sometimes I select Carrefour's own brand products instead of others. (Carrefour Group 3)

In conclusion, consumers' perceived risk toward a specific retailer's PB seriously affects their PB attitude and purchase intention. Results from the discussions indicated that the perception of lower risk toward a specific retailer's PB, resulted in a more positive attitude toward the PB and higher purchase intention. Conversely, higher perceived risk toward a specific retailer's PB, resulted in a more negative PB attitude and lower purchase intention.

Most of the discussions on perceived PB risk occurred in the Carrefour groups. There were few related discussions in the 7-11 groups when consumers talked about their purchase experience of its PB products. This means that while the perceived risk of Carrefour's PB plays an important part in consumers' purchase decision, this was not an important issue for 7-11's PB shoppers. So there is a difference in consumers' perceived risk in different retailer's PB products. Based on the results of different focus groups and the discussion above, this research postulates that:

H5-2: Greater perceived risk of PB results in more negative PB attitude.

H5-3: H5-2 will differ by stores.

5.3.5 Familiarity with PB

The findings of focus groups showed that while some consumers were very familiar with a specific retailer's PB, others might not. Generally speaking, when consumers are familiar with specific brand, they have more brand information and tend to evaluate the quality of the brand from multiple perspectives. They use diverse information including country of origin and/or original equipment manufacturer and other characteristics to evaluate PB products. The focus groups showed that brand familiarity enhanced consumers' confidence in their ability to utilise this information to evaluate product quality, perceived risk and price perception of PB.

In Taiwan, some well-known national manufacturers produced PB products for retailers. For example, the leading Taiwanese food manufacturer, Uni-President¹⁰, produces bottled black tea for 7-11's PB. Consumers who are more familiar with PB might observe that the producer of PB is a famous local company and evaluate the 7-11's PB more positively because of good reputation of the manufacturer. The results of the focus groups revealed that when consumers noticed that the specific PB product was produced by the well-known manufacturer, they evaluated the quality of the PB higher. One possible reason is that due to previous experience and confidence in the local well-known manufacturer, consumers are more familiar with the PB which reduces the uncertainty inherent in the purchase. In fact, knowledgeable consumers may recognize that most PB products are produced by national brand manufacturers (DeVecchio, 2001; p243). This is reflected in some of the comments from two female consumers' comments:

Consumer: I bought square cookies of Carrefour brand products. It was because I noticed that it shared the same manufacturer with the famous domestic brand 'Lao-Yang', while its price was lower by 30 to 40 yuan. I think since the source of production is the same, it deserves a try. Then I found the taste very close to 'Lao-Yang' square cookies. (Carrefour Group 2)

Consumer: Usually when I buy Carrefour brand products, I pay more attention to its original equipment manufacturers, and see whether the company is a famous manufacturer or not. For example the frozen dumpling or the square cookies, if a famous manufacturer makes them, I will feel relatively feel confident to buy them. (Carrefour Group 2)

Results from the focus groups also revealed that when some consumers saw a familiar PB, they felt more secure and satisfied with the product. In other words, as consumers' familiarity with a specific retailer's PB increases, the perceived performance risk decreases because uncertainty is reduced

¹⁰ For more information about Uni-President can be see as <http://www.uni-president.com/>

(Sethuraman and Cole, 1999). In short, when consumers know more about the characteristics of the PB, their perceived risk of the brand is less. This is reflected in some of the comments from the consumers.

Consumer: The French Champagne with Carrefour brand makes me feel more secure than with other unknown French brands. (Carrefour Group 2)

Consumer: Before Carrefour brand products had been offered, I bought diverse brands products at will. But after I choose several items and try out, I am very satisfied with Carrefour brand products. Now I am likely to buy Carrefour brand products. (Carrefour Group 3)

In the meanwhile, familiarity reflects perceived risk and the amount of information available to the consumer about private brands (Baltas, 1997). When consumers are unfamiliar with a brand, they might have higher perceived risk toward the brand. In view of the short PB development history, it is reasonable to predict that Taiwanese consumers might treat private brands as a new or unfamiliar brand and refuse to try them. This argument is verified by some previous studies where PB prone consumers exhibited significantly greater familiarity and usage experience compared to those reluctant to buy PB (e.g. Dick et al., 1995; Sethuraman and Cole, 1999).

The results of the focus groups provided further confirmation the correlation between familiarity and perceived risk of PB. For Taiwanese consumers, unfamiliarity with PB results from (1) the short development history of PB in Taiwan and (2) unfamiliarity with foreign retailers. Taiwanese consumers have very short time to get familiar with these foreign retailers' PB products because there is almost no PB products until 7-11 first introduced its PB in 1979.

Furthermore, most grocery retailers offered PB in Taiwan are foreign retailers, for example Carrefour (France), Giant (France), Tesco (the UK), and Costco (USA). Some consumers might refuse to try these 'new' brand

products. The focus group results found some consumers unwilling to try these 'new' brands because of the unfamiliarity with the PB. This results in higher perceived risk of the PB and restricts consumers' willingness to buy the PB products. One example is a comment from a female consumer.

Consumer: For food, I usually prefer the brand that I am used to. Rather than trying a new thing, I usually buy the goods of the same brand. The Carrefour brand is a new brand to me, so I will not try its food products. (Carrefour Group 2)

Lastly, the results also pointed out that brand familiarity affected consumers' price perceptions toward PB. When consumers know that the lower price does not mean sacrificing product quality but reducing the operation cost, they less rely on price to judge the quality of the produce. Brand familiarity enhances the consumers' perception of price saving from PB purchase because of the consumers' ability to realize the reason for the lower price of PB. This is reflected in some of the comments from the consumers.

Consumer: I decide whether to buy a product or not according to its price, and I believe that 7-11's own brands merchandise should be cheaper. I believe that selling its own brand products, they should reduce the costs and expenses, since it needn't pay the slotting fee for itself. So if its merchandise quality is similar to other national brands but the price is almost the same, I would not consider buying its own brand goods. (7-11 Group 1)

In conclusion, familiarity with PB is an important factor for Taiwanese consumers to judge the quality, risk and price saving of a specific retailer's PB. Previous studies such as Bettman (1974) and Richardson et al. (1996) posited that familiarity with PB served to increase PB proneness by decreasing the perceived risk and perceived quality variation associated with these brands. The results of focus groups not only supported their findings but offered more valuable detail information about the relationship between familiarity and perceived risk of PB. Moreover, the results of the focus groups also found that the familiarity with PB affect consumers' price

perceptions toward PB positively. Based on the finding of the focus groups, this research postulates that.

H6-2: Greater familiarity with private brand results in higher perceived private brand quality.

H6-3: Greater familiarity with private brand results in lower perceived risk of private brand.

H6-4: Greater familiarity with private brand results in higher price consciousness of private brand.

5.3.6 Store Reputation Reliance

A number of focus group participants rely on using the store reputation to judge the quality of the PB that sold in the store. In effect, the retailer elects to put its name on a product as a cue for product consistency and quality to assist consumers in their product choice decisions (Collins and Burt, 2006). This is especially important when consumers have little information about the real quality of the product or brand (see Andrews and Valenzi, 1970; Park and Winter, 1979; Richardson et al., 1996). Store image and/or store reputation offers them an alternative cue for quality judgments.

The use of store design by retailers as a major strategic tool is not new (Davies, 1990), since most retailers know how to maintain a good store image or reputation by promoting themselves. Some international retailers such as Carrefour and 7-11 are willing to invest millions of dollars in advertising to build a good store reputation. This is, at least in part, because they want to reduce some of the perceived risk for their customers and increase the perceived quality of their product. Previous studies have also reported that the positive reputation associated with the store name is one of the important cues for quality judgements and antecedents of consumers' purchase intentions (Dodds et al., 1991; Grewal et al., 1998).

Though an early research by Rao and Monroe (1989), has shown that store name has a small and non-significant effect on buyers' perception of quality, recent studies, for example Vahie and Paswan (2006) and Liljander et al. (2009) indicated that store atmosphere has a positive influence on perceived PB quality. Retailers in general seem to be trusted more than manufacturers by consumers (Davies, 1990). This research also heard different opinion in interviews. Some Taiwanese consumers tended to use retailers' reputation as one of the most important signals of product quality, since one of the characteristics of private brands is that they can only be bought from a specific retailer. This is more obvious when a retailer uses its store name as its PB name. For example, Carrefour and 7-11 both, respectively, name their PB as Carrefour and 7-11. The results of interviews showed that when consumers trusted the retailer, they also trusted its PB.

Consumer: I trust the store of 7-11 too. I believe that 7-11 sells either famous brands or its own brand. They (i.e. products) have been selected strictly to keep its own reputation, and to maintain its own goodwill. (7-11 Group 3)

Consumer: I think Carrefour is a French company, so I have more confidence in its brand. (Carrefour Group 3)

Consumer: Carrefour does a good job of being a good neighbour and my impression of their company is very good, and therefore I have confidence in its products naturally. (Carrefour Group 3)

These results of focus groups also showed that consumers believed in that a reputable retailer would select the best quality products for them. With the confidence, these customers evaluated a PB with higher quality when those retailers were perceived as having a favourable reputation. This was reflected in some of the comments from other consumers.

Consumer: I am not concerned about whether the merchandise I buy has a famous brand or not while I shop at 7-11. Because I believe that the quality

of products sold in 7-11 must be good. On the contrary, I often see many unknown brands in a discount store and I will pay more attention to avoiding buying those unknown brands products. (7-11 Group 2)

Consumer: Because Carrefour is a well-known retailer, I think its own brand products must be better. (Carrefour Group 3)

Consumer: I think Carrefour is a very big company, and since its products are labelled with ' Carrefour ', the quality of them has some guarantee at least. That is to say, in contrast to other generic products or no-name brand, its quality must have certain levels. (Carrefour Group 2)

On the other hand, the results of interviews showed that consumers perceived less risk toward a reputable retailer because consumers believed that a well-known retailer would not introduce inferior products to damage its reputation. Few past studies on PB have discussed the correlation between store image and perceived risk. For example, Liljander et al. (2009) found that overall store product and service quality (store image 'quality') significantly helped to reduce consumers' perceived financial risk. Also, Semeijn et al. (2004) asserted that a store with a good image could add value to the product by reducing the perceived risk of buying the brand. This was reflected in some of the comments from the consumers.

Consumer: I will target 7-11's own label goods to shop, because I think 7-11 is a very famous retailer, and it must select the OEM factory seriously. So I am very confident in their products. (7-11 Group 1)

Consumer: Carrefour brand goods have their store mark on packages, and Carrefour is a very big and popular company. So I believe that in order to maintain their goodwill, they should relatively not be keen on gaining petty advantages by purchasing inferior or harmful materials having bad influence on body. Therefore, I will rest assured to buy Carrefour brand goods. (Carrefour Group 3)

In conclusion, retailer reputation is an important clue for consumers to judge the quality as well as the perceived risk of private brands while purchasing. This research proposes that as a consumer perceives retailers' reputation positively, he/she will have better perception quality and lower perceived risk of a specific retailer's PB. Based on the finding of the focus groups, this research postulates that.

H7-2: Better store reputation results in higher perceived private brand quality.

H7-3: Better store reputation results in lower perceived risk of private brand.

5.3.7 PB Attitude and PB Purchase Intention

Consumers' intention to buy a particular brand is positively affected by their attitude toward the brand (Laroche and Brisoux, 1989). Prior studies found a positive relationship between PB attitude and actual percentage of PB purchase (e.g. Burton et al., 1998; Garretson et al., 2002; Jin and Suh, 2005). These studies also confirmed that PB attitude was the strongest predictor of the percentage of PB purchase in relation to other price perceptions, deal perceptions, and other marketing related constructs in a grocery store (Burton et al., 1998). In this research, the results of focus groups also found similar positive relationship between PB attitude and PB purchase intention.

A consumer's attitude toward a specific retailer's PB is affected by a wide spectrum of perceptual variables such as price consciousness and perceived risk. Consumer's attitude toward a specific retailer's PB can be treated as a more general summary of these perceptual variables. Some consumers may have better or worse attitude toward a particular retailer's PB because of personality (e.g. consumer innovativeness) or perception (e.g. sensitive to price saving). Thus their attitude toward a specific retailer's PB would seriously affect their purchase intention of PB. The focus group results revealed that the better the PB attitude, the greater the PB purchase

intention.

Some Taiwanese consumers mentioned that they could perceive specific value such as better quality, lower price from purchase of a specific retailer's PB. As mentioned above, many factors including perceived quality, risk, price and innovativeness might seriously affect a consumer's attitude toward a specific retailer's PB. In other words, these factors determine a positive or negative attitude toward PB which then affects his/her purchase intention. For example, in discussion of reasons to buy Carrefour's PB products, one participant in the Carrefour group 1 answered:

Consumer: I buy Carrefour's own brands because I think its private brand products are valuable products, I mean they are not only quite delicious but also quite inexpensive. (Carrefour Group 1)

Similarly, another participant in the Carrefour group 3 said:

Consumer: I select Carrefour's private brand products because its quality is good, and the price is more reasonable. (Carrefour Group 3)

Except for better quality and/or better price saving, PB products help a retailer to transfer other values to consumers. Consumers might perceive different values such as fancy packing, well store reputation, convenient, fresher, being offered by different retailers. For example, in the focus groups, some consumers said:

Consumer: I buy 7-11's private brand because I think its brand is famous and the quality of the goods is known widely. (7-11 Group 1)

Consumer: I think the packing of 7-11's food looks very delicious. For example, the packing of snacks is more exquisite than that of any other brands, and the price is relatively lower. So I always select the 7-11's own brand products. (7-11 Group 1)

Consumer's PB attitude varies by retailers. While one consumer has a positive attitude toward A-store's PB, he/she might have negative attitude toward B-store's PB. However, the relationship between consumers' attitude toward PB and their purchase intention toward PB is very consistent. Specifically, it is always true that better attitude will result in higher purchase intention whilst worse attitude will result in lower purchase intention.

In conclusion, PB products help a retailer to transfer specific value to consumers, so consumers can perceive different values on offer from different retailers. These values include novel products, better quality, price savings and lower risk. The focus group results shows that most consumers focus on the low price when they talk about Carrefour brand but focus on non-price factors such as innovative and quality PB products when they talk about the 7-11 brand. However, no matter what factors determined a consumer's attitude toward a specific retailer's PB; his/her PB attitude will affect his/her PB purchase intention ultimately. Based on the results of focus groups and discussion above, this research postulates that:

H8: Greater PB attitude results in higher private brand purchases intention.

5.4 Research Limitation

Though focus group method has some advantage of offering wide and various opinions from the consumers, it should be noted that it still has some limitations. Unlike American or British consumers, Taiwanese consumers live in a collectivist society and tend to care more about other consumers' viewpoint than individual opinion. The process of the focus groups method is interactive and the opinion of a specific group member might be affected seriously from other participants' judgement. Especially the dominant group member's perception might deter others' from stating an opinion. Therefore, during the process of focus groups, the interviewer caught opinions from all participants and offered multiple routes such as

offering paper and author's email address for the group members to relate their experience.

Otherwise, because this research tries to invite consumers with varied backgrounds to express their own experience, some personal information such as income, household size and jobs statement was needed in advance of the focus groups. However, at the same time, this research also has to follow the standard research rule to protect the personal information. Therefore, the demographic information about income, household size, jobs were obtained on paper before the meeting. Though some customers still refused to offer their own personal information before the interviews, this research tried to recruit to the focus group quest if possible.

The high cost of holding a focus group is also a reason limiting the size of research samples. It is usually true that as the numbers of participants increase, the researcher can obtain more information related to the question. To save money and increase the effect of the interviews, numerous telephone calls were used to recruit and confirm the participation to satisfy the recruitment quota. In that way, this research avoided inviting the unsuitable participants to the focus groups.

However, some cost still cannot be avoided. For instance, because four of the focus groups were held in the two different restaurants, the host still had to offer free beverage and breakfast or lunch to those who attended discussion. After the meeting, a small gift, British tea, was given to thanks for the participation. In two young consumer groups, a small lottery activity for fun was also run to enhance the participants' willingness to take part. These costs limit the research scale but the discussion results still show considerable, useful and primary opinions from Taiwanese consumers and the contribute to facilitating research model.

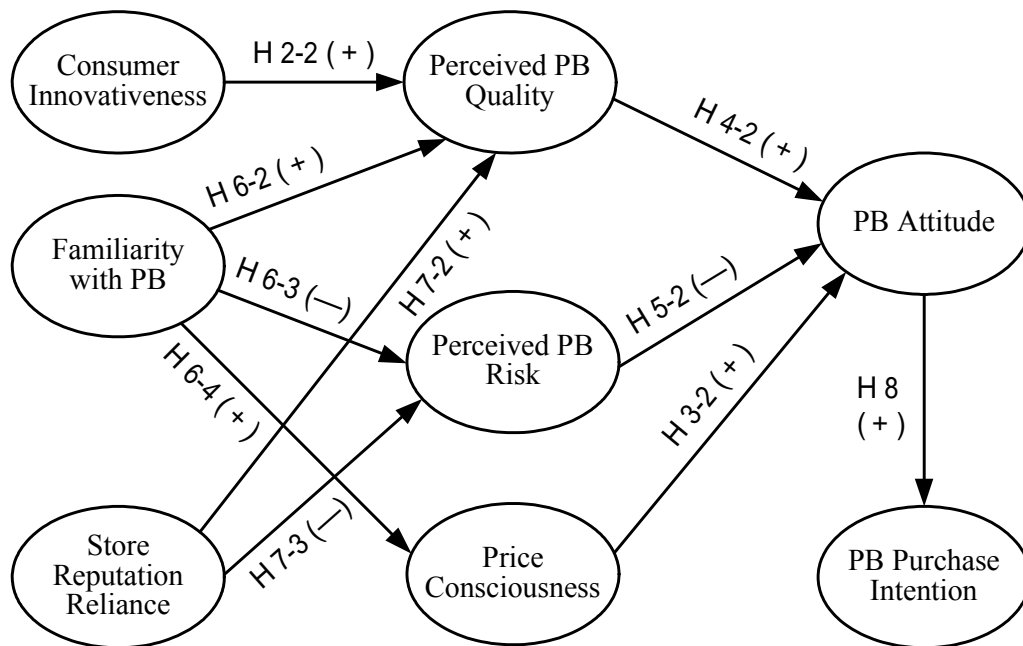
5.5 Summaries

In this research, a qualitative focus group method has been applied as a

supplemental method for facilitating the hypotheses that are generated from a review of the literature. This research applied the focus group method to provide further evidence for existing hypotheses and to develop new hypotheses that could not be obtained from the literature review.

The research hypotheses based on the focus group discussions and the extended research framework can be seen in Figure 5.2 below. The findings suggest both direct and indirect effect of perceptual variables. Factors including familiarity with PB, store reputation reliance, perceived quality of PB, perceived risk of PB, price consciousness and consumer innovativeness have effect on PB attitude and PB purchase intention.

Figure 5.2 Research hypotheses and research framework



Note: (+) indicates a hypothesized positive effect and (-) indicates hypothesized negative effect

Undoubtedly, price saving is still major reason for some consumers to select PB, because private brands offer price savings over national brands. However, results from the focus groups further indicate that young and Carrefour shoppers care about low price than older and 7-11 shoppers. Some 7-11 consumers even argued that the price of 7-11's PB is more expensive than leading national brands. Elderly consumers seem to care about the

product quality and perceived risk issues.

Product quality is another main reason for most Taiwanese selecting PB instead of others. Because of an improvement in the quality of PB over time (Steenkamp and Dekimpe, 1997), and the increasing efforts of international retailers extending their territory into international markets, retailers tend to offer novel PB products from different countries. Innovative consumers appreciate to these novel PB products.

The results of interviews also suggest that familiarity with PB and store reputation reliance affect PB attitude via perceived quality, price and perceived risk. In the meanwhile, high perceived risk of PB used to be the major reason for consumers avoiding buying PB products. Some Taiwanese consumers are still concerned about potential risk, such as health or social embarrassing in buying PB. Consumers who perceive high PB risk tend not to buy the PB and they might opt for the higher priced leading national brand. The focus group discussions also find that some Taiwanese consumers see PB as a reliable brand. These consumers have better attitude toward a specific retailer's PB and have higher intention to buy it.

Chapter 6 Measurement and Pilot Test

6.1 Chapter Overview

The chapter first presents the development of the research questionnaire used in the consumer surveys. The design of the research questionnaire is based on the previous questionnaires that reported in published journal article. However, since most of these questionnaires are designed for Western consumers for years, they have to be translated and amended for the present study. A research questionnaire, consisting of 59 statements, was developed to test the hypotheses proposed in Chapter 3 and 5.

This chapter then testes the pilot questionnaire in 83 samples using on-line survey. Item analysis was conducted to test the reliability and validity of the research questionnaire. Finally, the research questionnaire was modified based on the pilot test results.

6.2 Measurement

A questionnaire, consisting of 59 statements, was developed to test the model (see Appendix B). With the exception of demographic variables, measures for all of the constructs consisted of multiple items on seven-point Likert scales (1 = strongly disagree, 7 = strongly agree). In order to be consistent with previous work on PB, all measures were based on previous studies and revised to fit the Taiwanese retailing context.

The questionnaire consisted of four sections: In the first section, 23 questions asked about respondents' personal characteristics. In the second part, 14 questions related to respondents' PB attitude, purchase intention and perception of Carrefour were offered and in the third part, a further 14 questions asked about respondents' PB attitude, purchase intention and perception of 7-11 brand products were offered. Before the beginning of the second and third part, appropriate filter questions were used to direct the

respondents to relevant selections. The last part of the questionnaire referred to basic socio-economic questions such as education level and age of the respondents.

This research used back translation to see how the questions were being interpreted. Firstly, the research questionnaire was designed in English and then translated into Chinese by the author and then an experienced senior English teacher translated the Chinese version research questionnaire into English version. The research questionnaire was then double checked by the author to check for accuracy and consistency. Moreover, to make sure of the validity, three consumers who were focus group members personally validated the translated questionnaire. Some words were modified to get closer to the original meaning of the variables.

6.2.1 Measurement of Independent Variables

The scales used to measure the eight latent constructs are shown in Table 6.1. For the measurement of different independent consumer characteristics, multi-items are taken from prior research. According to the conclusion from the literature reviews, personal, perceptual and socio-economic variables all explained why some consumers have more positive attitude toward PB and have more intention to select PB products while others not. In this research, two dependent variables and six independent variables (one personal and five perceptual variables) were selected. Items for many of the scales were taken either in part or in their entirety from the literature. Some new scales were created and some existing scales were adjusted based on the results of focus groups. All the scales were pretested with 83 samples from on-line surveys and the results of pilot test can be seen in 6.3 below.

Based on the past studies, one personal variable was measured using seven Likert statements. Consumer innovativeness refers to the consumers' attitude toward new or novel things. Questions such as "I often seek out information about new products and brands" and "I like to try new and different things" were used from previous research including Ailawadi et al.

(2001) and Jin and Suh (2005).

All price consciousness definitions and measures were based on previous studies. According to Lichtenstein et al. (1990; 1993), price consciousness was defined as: “the degree to which the consumer focuses exclusively on paying low prices”. They used five different items to measure price consciousness and later research such as Burton et al., (1998) and Jin and Suh (2005) adapted all or part of these items from Lichtenstein’s research. This research followed the selection of Jin and Suh (2005) and three questions - “It is important to me to get the best price for the product I buy”, “I am not willing to go to extra effort to find lower prices” and “I will grocery shop at more than one store to take advantage of low prices” were obtained based on the research of Lichtenstein et al. (1990; 1993) to measure the price consciousness variable.

Brand-related perceptual variables also have been discussed in various research studies in the PB area. Unlike previous research that focused on one specific retailer’s PB, this research selected two different retailers, Carrefour and 7-11, for analysis. Therefore, same brand-related perceptual variables were designed for these two retailers separately. For example, for Carrefour brand questionnaire, the question is “Carrefour brand offers good quality food items” while similar question is “7-11 brand offers good quality food items” for 7-11 brand questionnaires.

According to Dick et al. (1995), familiarity with PB referred to the usage experience and knowledge with the variety associated with PB purchasing. Also, Dick et al. (1995) used two items to illustrate this concept and the later research, including Richardson et al. (1996) and Mieres et al. (2006), adapted some of their items from Dick’s research. This research adapted original items including “I have much usage experience with Carrefour brand food items” and “I am very familiar with the various Carrefour brand food items available in the marketplace” from Dick’s questionnaire to measure the familiarity with PB variable.

Perceived quality has been measured and tested in several studies. For example, Grewal et al. (1998) used six items to measure the perceived quality of PB bicycle such as “This bicycle appears to be good quality”, “This bicycle appears to be durable” and “This bicycle appears to be dependable”. Dick et al. (1995) used three dimensions including overall quality, reliability of ingredients and the nutritional value of ingredients to describe the perceived quality of PB. This research referred to the results of the focus groups and suggested that three dimensions, including good quality, various selections and good taste, were more relevant for Taiwanese consumers’ perceived quality of PB food. This research, therefore, used these three indicators to measure the quality of PB food products.

Perceived risk has various dimensions (Mieres et al., 2006). Jacoby and Kaplan (1972) identified the existence of five underlying dimensions to the perceived risk associated with purchase: functional (associated to the performance of the product), financial (related with the potential monetary loss), social (relative to the perception of other individuals about the consumer), physical (relative to the health or physical well-being) and psychological risk (associated to the individuals self-esteem). Dick et al. (1995) used functional, financial, social and risk to represent the perceived risk concept. Later research Richardson et al. (1996) adapted two indicators - social risk and functional risk - from Dick’s study to describe the perceived risk from PB purchase.

This research follows Jacoby and Kaplan’s (1972) work and defined perceived risk of PB as a combination of multiple dimensions. But in order to simplify the concept, this research tended not to include all dimensions of risk. This study selected perceived financial, social, and functional risks from PB purchasing because according to the results of focus group, these three dimensions are most correlated to Taiwanese consumers’ PB purchase experience.

Store-related perceptual variables have less been discussed in previous PB studies because some early studies founded that store name had a small and

non-significant effect on buyers' perceptions of quality (Rao and Momoe, 1989). But as the channel power of some international retailers has increased dramatically, the importance and influence of store-related variables may be more significant than before. Grewal et al. (2004) announced that future research should examine the joint effects of store reputation and other information cues (e.g., price, brand) on behavioural intentions. Therefore, the last perceptual variable is store reputation reliance.

Previous research, Richardson et al. (1996) used "Extrinsic cue reliance" in brand selection to represent this concept and the "extrinsic cue" included brand name, advertising, packaging, and price information. Grewal et al. (1998) used seven dimensions to describe the perceived store image including pleasant, attractive, good image, good service, carrying quality merchandise, helpful and knowledgeable salesperson. However, it is surprising to notice that store reputation was excluded from their scale.

This research focuses on the effect of store reputation rather than brand name or store image. Question such as "The more famous the brand name of a grocery, the better the quality" is revised to "The more famous the store name, the better the quality". This research also refers to the results of the focus groups and suggests three dimensions (i.e. "reputation", "famous" and "well-known") are more relevant to Taiwanese consumers' perceived store image. This research, therefore, used these three indicators to measure the store reputation reliance variable. The number of items and sample item for each of the multi-item measures are summarized in Table 6.1 below.

Table 6.1 An overview of the multi-item measures

Multi-Item Scale	# of	Items
Measures	Items	
Consumer Innovativeness (Ailawadi et al., 2001; Jin and Suh, 2005)	3	<ul style="list-style-type: none"> a. When I see a product somewhat different from the usual, I check it out. b. I like to try new and different things. c. I often seek out information about new products and brands.
Price Consciousness (Lichtenstein et al., 1993; Burton et al., 1998; Jin and Suh, 2005)	3	<ul style="list-style-type: none"> a. I am not willing to go to extra effort to find lower prices. (Inverse question) b. I will grocery shop at more than one store to take advantage of low prices. c. It is important to me to get the best price for the product I buy.
Familiarity with PB (Dick et al. 1995; Richardson et al., 1996; Mieres et al., 2006)	2	<ul style="list-style-type: none"> a. I have much usage experience with Carrefour brand food items. b. I am very familiar with the various Carrefour brand food items available in the marketplace.
Store Reputation Reliance (Richardson et al., 1996)	3	<ul style="list-style-type: none"> a. The more famous the store, the better the product quality it sell. b. Store reputation is a good indicator of its quality. c. I believe that a well-known retailer must sell no inferior products.

<p>Perceive PB Quality (Dick et al., 1995; Grewal et al., 1998)</p>	3	<ul style="list-style-type: none"> a. Carrefour brand offers good quality food items. b. Carrefour brand offers various selections of food items. c. Carrefour brand offers good taste of food items.
<p>Perceived PB Risk (Dick et al., 1995; Richardson et al., 1996)</p>	4	<ul style="list-style-type: none"> a. The purchase of Carrefour brand food items is risky because the quality of store brands is inferior. b. The purchase of Carrefour brand food items is risky because the taste of Carrefour brands food is awful. c. Since Carrefour brands are of poor quality, buying them is a waste of money. d. People who buy Carrefour brand grocery items are cheap.
<p>PB Attitude (Burton et al., 1998; Garretson et al., 2002 and Jin and Suh, 2005)</p>	2	<ul style="list-style-type: none"> a. When I buy Carrefour brand products, I always feel that I am getting a good deal. b. When I buy Carrefour brand products, I always think that Carrefour brand is a good brand.
<p>PB Purchase Intention (Grewal et al., 1998; Ailawadi et al., 2001; Jin and Suh, 2005)</p>	3	<ul style="list-style-type: none"> a. I like to buy Carrefour brand foods. b. I look for Carrefour brand foods when I shop in Carrefour. c. I will continuously buy Carrefour brand foods.

6.2.2 Measurement of Dependent and Socio-economic Variables

Two dependent variables were included: PB purchase intention and PB attitude. The measurement of dependent variables of this study are also been studied by some prior studies. For example, Burton et al. (1998) used seven items such as “When I buy a private label brand, I always feel that I am getting a good deal” to measure PB attitude. Garretsonet et al. (2002) selected six items and Jin and Suh (2005) selected two items from Burton’s research.

Consistent with the desired to consider private brands as a whole rather than a specific PB, the items did not ask about a specific PB (e.g. Carrefour value or Carrefour premium) or a specific product (e.g. Carrefour brand milk or Carrefour brand noodle). In this research, PB attitude was measured through two Likert-type questions asking about their attitude toward PB. These two items (i.e. “When I buy Carrefour brand products, I always feel that I am getting a good deal.” and “When I buy Carrefour brand products, I always think that Carrefour brand is a good brand.”) are in line with Jin and Suh’s (2005) questions based on the research of Burton et al. (1998). The same items also have been used in Garretsonet’s research to measure the PB attitude.

Another dependent variable, PB purchase intention, referred to the willingness and likelihood of future purchasing. Several studies defined this concept with different scales. For example, Grewal et al. (1998) used three items such as “I would purchase this bicycle” and “I would consider buying at this price” to measure consumers’ purchase intention toward bicycle. Later research Ailawadi et al. (2001) used three items such as “I look for store brands when I go shopping” to describe this concept. More recently, Jin and Suh (2005) used “I will continuously buy private brand foods.” to measure consumer’s PB purchase intention. This questionnaire adapted and modified three items from these three studies separately.

In addition, the questionnaire included demographic measures, such as gender, age, income level, education level employment status and the size of household (see Appendix B).

6.3 Pilot Test

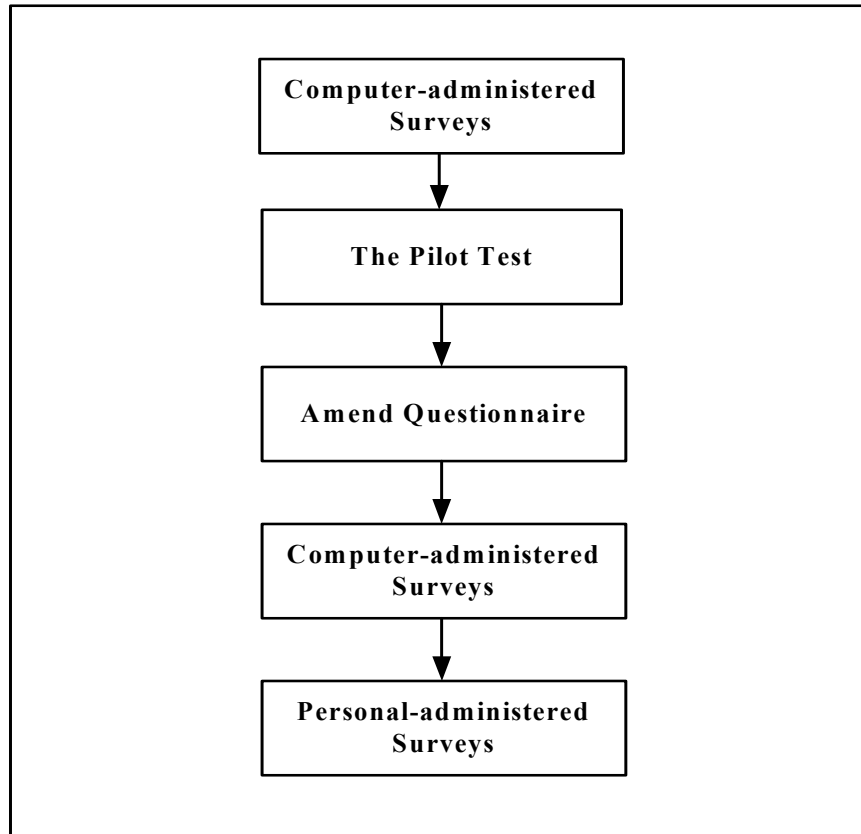
A pilot test is conducted to pre-test the measures of the factors. Because this research used same scales from previous research, were designed for different purpose, and some new scales, based on the results of the focus groups, there might have reliability and validity problem of the research questionnaire. Therefore, the pilot test was used to test the reliability and validity of the research questionnaire to highlight the potential problems.

6.3.1 Data Collection of Pilot Test

The main steps in data collection are outlined in Figure 6.1 below. The survey procedure in this research begins with a pilot test and ends with personal-administered survey. The pilot test data was analysed to amend the original research questionnaire. The formal surveys are conducted after pilot test. The pilot was conducted in December 2007. After the pilot test, the main survey of Taiwanese consumers PB purchasing was administered in 2008. The detail of the data collection process and the results of main survey will be discussed in the next chapter.

The data of the pilot test was collected using an on-line questionnaire. The translated Chinese version research was published on a free web site called My3Q.com. My3Q.com is an on-line survey company that offers free space for academic on-line questionnaires or charged space for business questionnaire. The web site operates four languages including Chinese, Japanese, Korean and English for selection. People can fill out and submit the questionnaire on-line.

Figure 6.1 The survey procedure



6.3.2 Samples of Pilot Test

The pilot test was based on 83 responses to an on-line survey. Table 6.2 provides useful information about the characteristics of these samples. In order to filter out those consumers who had buying Carrefour and 7-11's PB products, two filters were used in the questionnaire - "Have you shopped at Carrefour and knew the existence of Carrefour brand?" and "Have you shopped at 7-11 and knew the existence of 7-11 brand?". These filter questions were used to identify those consumers who could answer the questions about Carrefour and 7-11's private brands.

Of the sample, 71 respondents said that they had visited both Carrefour and 7-11 and knew what a PB was. Two consumers were not familiar with 7-11 and five consumers know little about the Carrefour's PB products. In other words, 73 (71 plus two) of 83 consumers knew the Carrefour brand and had shopped at Carrefour and 76 (71 plus five) of 83 consumers knew 7-11 brand and had shopped at 7-11. Furthermore, five of the 83 respondents

indicated that they had no shopping experience in either Carrefour or 7-11 and/or did not know what private brands were. This research, therefore, excluded these five questionnaires from samples.

Table 6.2 Sample description of pilot test

		Carrefour (n=73)	
		Yes	No
7-11	Yes	71 (-2 failure)	5
(n=76)	No	2	5

This research set two rules to aid the decision on which cases to delete due to missing values or low reliability. If a respondent's questionnaire had more than 10 items marked continually in the same score or if the case had missing values in excess of 5 within any case, then it was excluded from the analysis. Although it is possible for that some consumers may have similar responds towards different questions, this research set two inverse questions (e.g. the first question of price consciousness) to check for consistency. This research believes that though the critical standard reduces small numbers of questionnaires, it should improve the overall quality of the surveys.

After a serious review, two questionnaires are excluded from the analysis. Therefore, there are 76 valid questionnaires and the effective response rate is about 91.6% (76 divided by 83) in the pilot study.

6.3.3 Sample Description of Pilot Test

The demographic profile of the pilot test sample was summarized in Table 6.3. The conditions for inclusion in the surveys were that the respondent must be at least 18 years of age and must did at least part of the grocery shopping for the household or her/himself. Approximately 60 percent of food product respondents were in the age range of 25-34 and 26 percent of respondents were in the age range of 18-25. Surprisingly, there were no

elder respondents in the pilot test sample.

Table 6.3 Sample demographics of pilot test

Demographic Characteristic	Number	Percentage
Sex		
Female	38	50%
Age		
18-25	20	26.3%
25-34	46	60.7%
35-44	8	10.5%
45-59	2	2.5%
Over 60	0	0%
Education Level		
Junior high school/less	0	0%
Senior High school	3	3.9%
College	1	1.3%
University	46	60.7%
Advanced degree	26	34.1%
Monthly Household Income		
< 20,000 NT	22	28.9%
20,000 NT - 40,000 NT	30	39.5%
40,000 NT - 100,000 NT	23	30.3%
> 100,000 NT	1	1.3%
Employment Status		
Homemaker	1	1.4%
Fulltime/self-employed	47	61.8%
Part time-other	9	11.8%
Retired	0	0%
Student	17	22.4%
Waiting for work	2	2.6%

Table 6.3 showed that most respondents were workers. 73.6 percent of respondents had either a full-time or part-time job. About 22 percent of the sample here were students. Most consumers earned 20 thousands to 40

thousands NT dollars per month. There was only one higher income consumer that earned more than 100 thousands NT dollars (i.e. 2 thousands pound sterling) in the pilot test samples.

Approximately 95 percent of the respondents had a college degree or more. High education level of the samples might correlates to the sampling process. Because computer-administered surveys needed some computer skills to answer the survey question on-line, high education level of the samples was not a surprising result.

6.3.4 Item Analysis of Pilot Test

To increase the internal consistency of the test (i.e. raise the reliability), this research used item analysis to decide what items to keep and what items to remove. This research adapted the items test that includes sample mean, standard deviation, correlated item-total correlation, Cronbach's α and factor loading value to test the reliability and validity of the research questionnaire. The items test of pilot test can be seen as Table 6.4 below.

Mean. The mean is the average score on an item and it represents the common measure of location for the item. For a data set, the mean is the sum of the observations divided by the number of observations. The mean is often quoted along with the standard deviation: the mean describes the central location of the data, and the standard deviation describes the spread.

Standard Deviation. Standard deviation is a measure of the variability or dispersion of a population. It is perhaps the most frequently used measure of spread because it improves interpretability by removing the variance's square and expressing deviations in the original units (Cooper and Schindler, 2003). If the standard deviation value is under 1, it means that the degree of spread of the item is not enough. After a serious of review, this research noticed that every item satisfy the requirement (see Table 6.4 below).

Table 6.4 Item analysis of pilot test

Items	N	Mean	Standard Deviation	Correlated Item-Total Correlation	Cronbach's α	Factor Loading
CI01	76	4.72	1.4	0.62	0.85	0.81
CI02	76	4.89	1.32	0.84		0.94
CI03	76	4.46	1.45	0.71		0.88
PC01	76	4.53	1.57	0.77	0.88	0.90
PC02	76	4.67	1.57	0.85		0.94
PC03	76	4.26	1.46	0.68		0.85
F01	145	3.86	1.65	0.7	0.82	0.92
F02	145	3.48	1.54	0.7		0.92
PQ01	145	3.99	1.31	0.75	0.83	0.90
PQ02	145	4.39	1.39	0.6		0.81
PQ03	145	3.99	1.21	0.73		0.89
PR01	145	3.28	1.23	0.87	0.92	0.94
PR02	145	3.13	1.21	0.86		0.93
PR03	145	3.25	1.3	0.88		0.94
PR04	145	2.96	1.39	0.67		0.79
SR01	76	3.88	1.39	0.74	0.78	0.90
SR02	76	4.63	1.36	0.52		0.77
SR03	76	4.25	1.4	0.59		0.82
PBPI01	145	3.97	1.37	0.78	0.89	0.91
PBPI02	145	3.48	1.36	0.77		0.90
PBPI03	145	3.78	1.35	0.80		0.91
PBA01	145	3.54	1.22	0.75	0.86	0.94
PBA02	145	3.8	1.37	0.75		0.94

Correlated Item to Total Correlation. Correlated item-to-total correlation also called item-to-total correlation or item-to-scale correlation is the correlation between item and the rest of the scale. If the correlation is low, it means the item is not really measuring what the rest of the test is trying to measure (Sherry, 1997). According to the rule of thumb, if the correlation is lower than 0.3, it means the item is not a good indicator to measure the variable. After a serious of review, this research noticed that every item satisfy the requirement.

Cronbach's α . Cronbach's α is the most common method to test the reliability of the scale and it has an important use as a measure of the reliability of a psychometric instrument. Cronbach's α is defined as

$$\alpha = \frac{N}{N-1} \left(\frac{\sigma_x^2 - \sum_{i=1}^N \sigma_{Y_i}^2}{\sigma_x^2} \right)$$

where N is the number of items and σ_x^2 is the variance of the observed total test scores, and $\sigma_{Y_i}^2$ is the variance of component *i*. Alpha coefficient takes numbers varying between 0 and 1. Cronbach's α will generally increase when the correlations between the items increase. For this reason the coefficient is also called the internal consistency or the internal consistency reliability of the test¹¹.

Hair et al. (1998) suggested that the Alpha coefficient should be 0.7 and over to be considered about the reliability of the scales in academic research. Generally speaking, the more alpha coefficient gets closer to 1, the more the reliability of the scales increase. After a serious of review, this research noticed that every variance satisfy the requirement since all scales higher than the requirement (see Table 6.4 below).

Factor Loading. Factor loadings indicate the overall importance of each item. In other words, a factor loading is the correlation between a variable and a factor that has been extracted from the data. Generally speaking, the more factor loading value gets closer to 1, the higher correlation between the item and the factor and the more contribution of the item to the factor.

¹¹ http://en.wikipedia.org/wiki/Cronbach's_alpha

There are two main approaches to factor analysis: “principal component analysis” (the total variance in the data is considered) and “common factor analysis” (the common variance is considered). This research selected principal component analysis and used varimax method that is the most common method for factor rotation.

Hair et al. (1998) suggested that in distinguishing high factor loading, loading with values 0.5 of the absolute value were arbitrarily adopted as the acceptable academic standard while the value of 0.7 was represented as a good factor loading value. After a serious of review, this research noticed that every variance satisfied the good factor loading requirement since the lowest factor loading value was 0.77 in this research.

In conclusion, this research selected five most common indicators including sample mean, standard deviation, correlated item-total correlation, Cronbach’s α and factor loading value for item analysis. Generally speaking, the results of item analysis showed high reliability and validity of research questionnaire. All items satisfied the statistic requirement.

6.4 Summary

The chapter has examined the design of the research questionnaire and processed the pilot test. Based on the previous studies and the results of the focus groups, a research questionnaire, consisting of 59 statements, has been designed. Multi-items were taken from prior research and revised to fit the Taiwanese grocery retailing context.

Pilot test has been discussed in greater detail. This research used the item descriptive statistics and item analysis to check the potential mistakes of the research question questionnaire before the formal test. The results of pilot test showed the high quality of the research questionnaire. The sample collection process and main research data collection will be discussed in the next chapter.

Chapter 7 Analysis of the Sampling Procedure and Main Survey Results

7.1 Chapter Overview

This chapter first explains why this research used both person-administered and computer-administered methods to collect data. Though a number of previous studies used either person-administered or computer-administered methods to collect data, this research used both methods. These advantages and disadvantages of both methods will be discussed in 7.2 and the findings of the person-administered and computer-administered methods are presented separately.

The chapter then describes the sample characteristic of the main surveys. Demographic statistics including gender, age, employment status education and income level of the survey results are presented. Finally, to evaluate the reliability and validity of research constructs, this research uses missing value analysis, confirmatory factor analysis and reliability analysis methods. All statistical indexes indicated that the data collecting from computer and personal administered surveys is valid and useable.

7.2 Data Collection

As mentioned in Chapter 6, the main steps in data collection begin with computer-administered surveys followed by personal-administered surveys. Inherently, each method has specific strengths and weaknesses. Malhotra and Birks (2006) compared the advantages and disadvantages of both survey methods (see Table 7.1). Thus, the main reason for using both methods is because both survey methods complete to each other. Specific reasons will be discussed as follow.

Table 7.1 The comparison of personal and computer administer survey methods

Criteria	Personal -administered Surveys	Computer -administered Surveys
Flexibility of Data Collection	High	Moderate to high
Diversity of Questions	High	Moderate to high
Use of Physical Stimuli	Moderate to high	Moderate to high
Sample Control	Moderate to high	Moderate
Control of the Data Collection Environment	Moderate to high	Low
Control of Field Force	Low	High
Quantity of Data	Moderate to high	Moderate to high
Response Rate	High	Low
Perceived Respondent Anonymity	Low	High
Social Desirability	Low to moderate	High
Obtaining Sensitive Information	Moderate	Moderate
Potential for Interviewer Bias	High	None
Potential to Probe Respondents	High	Low
Potential to Build Rapport	High	Low
Speed	Moderate	High
Cost	High	Low

Source: adapted from Malhotra and Birks (2006)

7.2.1 Computer-administered Surveys

A process of computer-administered surveys in this research is an appropriate option because of the high levels of computer ownership in Taiwan and people's ability to operate computer as a research media. The popularization of computer in Taiwan is very high since it is well known for

computer industry. According to the statistical report from International Telecommunication Union, over 60% of Taiwanese households have a computer and other equipment to connect to the Internet in 2006. Meanwhile, according to the report of Wikimedia¹², the popularization of compulsory education in Taiwan is 71%, just behind Japan in Asia countries. This means that 71% of Taiwanese people have junior high school degree or higher. Therefore, since most Taiwanese people have the ability to operate computer as a research media, it is easy to collect data through on-line surveys.

Using computer-administered surveys to collect data has advantage in saving time. Firstly, when participants answer the on-line questionnaires, the answers are directly entered into the data storage immediately. Researchers do not have to collect the paper-based questionnaires and key in data by hand. The real-time capture of data reduces the potential human error such as key-in mistakes and missing data problem.

Secondly, compared to the face-to-face interviewing method, computer-administered surveys can save time in distributing questionnaire to interviewees. Since respondents are interacting with the computer and not a human, they can answer the questionnaire at any time at any place as long as they have a computer and other equipments connecting to Internet. Therefore, the computer-administered surveys have some advantages in saving time.

Also, using computer-administered survey method to collect data has advantage in saving money. Firstly, because the paperless computer-administered approach does not use any paper and doesn't need any printing cost, it helps the researcher to save not only money but also avoid waste the nature resource. Secondly, the on-line questionnaire was designed and administered using 'my3q.com' a professional questionnaire collecting company. My3q.com offers free space for academic purposes to publish and collect questionnaires. Researchers can offer and update their

¹² <http://zh.wikipedia.org/wiki/%E5%8F%B0%E7%81%A3%E6%95%99%E8%82%B2>

questionnaires on-line and download the data from the website for free.

Finally, forwarding emails to invite participant to the website and to fulfil the on-line questionnaire is free. To enhance the collecting efficiency, the author sent out one hundred and twenty emails containing an invitation and a hyperlink to the on-line questionnaire¹³. The email distribution list was based on alumni who had graduated from advanced studies in management and accounting at National Chung-Hsing University in Taiwan. To increase efficiency, the respondents were asked to send the email to their colleagues, relations and friends.

Though collecting data on line has some advantage in saving time and money, there are some disadvantages. One of the disadvantages is that some groups of consumers may have low willingness, no ability or chance to fill in the questionnaire on line. Specifically, higher income consumers might have lower willingness to answer the questions voluntarily since their opportunity cost of time is higher than others. Some groups of consumers such as elderly or consumers with poor eyesight might not have the ability to answer the questions through the computer because they have to stare at the monitor for a period of time to answer the questions.

On contrary, some groups of consumers such as young consumers might have more change to fulfil on-line questionnaire. A report from the Department of Commerce, National Telecommunications and Information Administration (NTIA) and Economics and Statistics Administration (ESA), noted that online shopping is particularly common (53 percent) among the Internet users in the 20-34 age group in 2003. This may partly explain why the pilot test sample only contained 2.5% of elderly consumers and 87% of 18-34 younger consumers.

Additionally, access to the internet also depends on consumer education. For example, Chen and He (2003) stated that the online population is highly educated with over half of the population having a college education or

¹³ www.my3q.com/home2/197/s0675975/79356.phtml

higher. Therefore, it is reasonable for this research to predict a relative high educational level from computer-administered surveys.

In short, though collecting data by computer-administered surveys offers advantages in saving time and money, some groups of consumer might have less opportunity to participate. For example, lower educated, elderly, and weak-sigh people might have less opportunity to use the computer and Internet. In the next section, this research will represent the results of computer-administered surveys.

7.2.2 Results of Computer-administered Surveys

The results of computer-administered surveys can be seen in Table 7.2 below. This research interviewed 270 respondents from the on-line surveys conducted between December 2007 and March 2008. Though, this research expects that some biases might happen and tries to avoid it, the results of computer-administered surveys still showed some problems.

First of all, 96 percent of the respondents have a Bachelor or higher degree while only 4.1 percent of respondents have a senior or lower education degree. Since some emails were sent to university graduates directly and the online population is usually highly educated (Chen and He, 2003), the highly educated sample is not a surprise.

Meanwhile, about 70 percent of respondents were aged 25-34years old. This result also consists with the expectation that online population is usually younger people (Chen and He, 2003). And it is important to acknowledge that only 2.6 percent of respondents are over 45 years old. Therefore, there is a need to collect some specific groups of consumers such as older and lower educated respondents.

Forty six percent of respondents had 20,000-40,000 NT dollars (about 400-800 pounds sterling) average monthly income, representing typical income for Taiwanese 'Blue-collar' worker or people just beginning their

careers. But it is important to note that only 1.1 percent of respondents earned more than 100,000 NT dollars (about 2,000 pounds sterling (UK)) per month. One possible reason is that high-income consumers might tend not to spend their time doing academic surveys.

Finally, about 83 percent of the respondents had either full time or part-time job and only 15.6 percent of the participants were students. Though student samples are the most easily to collect samples, too many student samples might damage the representativeness of the sample. Therefore, this research set up a condition for inclusion in the surveys that the respondent must be at least 18 years of age. Though most college students are over 18 years old, the condition still can reduce the participation of young students.

In conclusion, though collecting data on line is convenient for higher-educated and younger consumers, it is inconvenient for some groups of consumers. The result of computer-administered surveys confirms the need to collect data from older, less educated and higher income consumers necessitating the use of person-administered surveys that utilise face-to-face interviews.

Table 7.2 Sample demographics of main surveys

Demographic Characteristic	C-A Surveys (Totally 270)	P-A Surveys (Totally 204)	Total (474)	
	%	%	Num.	%
Sex				
Female	54.1	61.3	272	57.4
Male	55.9	38.7	202	43.6
Age				
18-25	15.9	19.1	82	17.3
25-34	69.6	23.5	236	49.8
35-44	11.9	28.9	91	19.2
Over 45	2.6	28.4	65	13.7
Education Level				
Junior High/Primary	0.4	1.5	4	0.8
Senior High	3.7	18.6	48	10.1
College	4.8	14.7	43	9.1
University	51.5	47.5	236	49.8
Advanced Degree	39.6	16.7 *	141	29.7
Monthly Household Income				
< 20,000 NT**	21.1	27.5	113	23.8
20,000 NT - 40,000	45.9	28.4	182	38.4
NT	31.9	35.3	158	33.3
40,000 NT - 100,000	1.1	7.8 ***	19	4.0
NT				
> 100,000 NT				
Employment Status				
Homemaker	1.5	8.8	22	4.6
Fulltime/self-employed	73.7	59.8	321	67.7
Part time-other	9.3	12.8	51	10.7
Student	15.6	18.6	80	16.9

Note: * 2 respondents refused to answer their education information

** A pound sterling is about equal to 50 NT dollars

***2 respondents refused to answer their income information

7.2.3 Personal-administered Surveys

The purpose of person-administered surveys is to collect data from specific groups of consumers that may be difficult to reach using the on-line surveys. As mentioned above, the computer administered surveys failed to generate response from older, less educated and higher income respondents. Therefore, in this procedure, older, less educated and higher income shoppers were randomly intercepted outside the Carrefour and 7-11 stores in Taiwan. Four research assistants conducted the surveys over a three-week period in the spring of 2008.

However, it is very difficult to recruit less educated and higher income respondents through observation because as personal characteristics are not easy to identify. In the meantime, it is very impolite and rude to ask personal information such as age, education or income in Asian societies. To solve the problem, the research assistants were instructed to predict the respondent's age and income level and then ask him/she to fill in the questionnaire. For example, male consumers who wear expensive suits or female consumers with in expensive handbag might be the high income level consumers. Though these people could be poor but with expensive clothing, this method does increase the chance to recruit specific consumers.

Each interview lasted approximately 10 to 15 minutes and verbal explanations of the questions or definitions were conducted as required. To ensure the meaning of PB, detailed written descriptions about PB with photos of both PB and national brands were provided where necessary. This procedure ensured that there was no confusion among respondents about what was meant by PB and national brands. However, according to the responses of the research assistants, most respondents know what are PB and national brands and do not ask for the help.

Moreover, person-administered surveys offer greater flexibility in guiding respondents through the questionnaire (Burns and Bush, 2003). This has advantages when interviewing older respondents or respondents who have

difficulty in reading the questionnaire. However, most respondents had no difficulty in reading the questionnaire and only a few respondents asked for the help.

All questionnaires were self-completed and collected by the interviewer immediately after the interview. Respondents were given a Public Welfare Lottery tickets, each costing fifty New Taiwanese dollars (about one pound sterling (UK)), as an incentive for participation. Respondents had to be at least 18 years of age and have experience of shopping in Carrefour and/or 7-11 for inclusion in the study.

Though person-administered surveys had some advantages in collecting respondents from specific groups, there were some disadvantages of using face-to-face interviews. First, the cost for person-administered surveys is much higher than computer-administered surveys. The cost for collecting data includes remunerating research assistants, printing and copying costs for the questionnaires and purchase of necessities and additional time required to collect this data.

Secondly, there is the possibility of the human error from person-administered surveys. The human error might come from the data transfer process since the questionnaire is filled out using pencil and paper, and then coded and transferred to a computer data file. Though this research endeavours to minimize the human error from the data transfer process, the possibility of the human error still exists.

Finally, there is the issue of missing value bias. For example, two respondents refused to provide information about their monthly income and two respondents refused to answer the education question. Likewise, missing value bias exists in computer questionnaires even though some techniques were applied in this research to avoid the missing value bias from computer-administered surveys. These techniques were that if the respondent tries to skip one question, the computer will tell the respondent that all questions must be answered before submitting. If the respondent

submits the questionnaire before answering all questions, the computer will remind the respondent that some questions need to be answered. However, if the respondent still insists on submitting the questionnaire, the computer will accept the questionnaire. The missing value bias will be further discussed in 7.3.2 below.

7.2.4 Results of Personal-administered Surveys

The results of person-administered surveys can be seen in Table 7.2 above. 204 respondents completed the person-administered surveys from April to May 2008. It is important to notice that although the person-administered surveys were used to collect data from older, less educated and wealthy consumers, research assistants still try to select all kinds of consumers. Therefore, compared to the results of computer-administered surveys, there is a better spread of age, education and income distribution.

Table 7.2 shows that 28.4 percent of respondents were over 45 years old. About 20 percent of the respondents were not graduates in the person-administered surveys compared to only 4.1 percent in the computer-administered surveys. The high education phenomenon is due to the system of education in Taiwan. According to the education law, senior education is compulsory for Taiwanese people and most students chose to go to college or university after graduating from school. According to the statistical results from the Taiwanese government, 33.9% of Taiwanese people have a college or higher degree, while 33.2% of Taiwanese people have a senior high school degree.

About 35 percent of respondents had 40,000-100,000 NT dollars (about 800-2,000 pounds sterling (UK)) average monthly income. This income level represents a typical Taiwanese manager's average monthly income. Finally, 72.6 percent of the respondents had either a full time or part-time job and 8.8 percent of the participants were homemakers.

7.3 Sample Description, Missing Value and Reliability Analysis

7.3.1 Sample Description of Main Surveys

The average value of the family size is close to 4 (see Table 7.3) and that means most respondents come from the small size family. Though the traditional Chinese family size could include three or more generations in the same house, it is very common to see a small family that has only one or two generations in a house. According to the survey results, about 16.8 percent of the respondents' family have six or more family members in their house and the majority come from small family that has four or five members. Moreover, this research recoded the family size over 7 (i.e. 8-14) into 7 to reduce the outlier effect.

Table 7.3 Family size of the sample

Family Size	1	2	3	4	5	6	>7
Num.	52	54	74	104	97	53	27
Percentage	11	11.4	15.6	22	20.5	11.2	5.6
Cumulative percentage	11	22.4	38	60	80.5	91.7	97.3

Note: There are 13 participants (2.7%) refused to answer this question

As mentioned above, the main surveys contained 474 questionnaires comprising 270 from the on-line surveys and 204 from face-to-face interviewing. Some 392 respondents answered questions on both Carrefour and 7-11 (see Table 7.4) while 14 respondents indicated that they had no shopping experience in either store. 35 of 474 consumers have shopped in Carrefour but not in 7-11 while 33 of 474 consumers have shopped in 7-11 but not in Carrefour. In total, this research has 852 completed questionnaires across the two stores with 427 (392+35) respondents on 7-11 and 425 (392+33) responses on Carrefour. Table 7.4 shows that 392 respondents

provided data on both two stores whilst 14 respondents provided no data because of ignorance of Carrefour and 7-11's PB products. This represents a reasonable usable questionnaires rate of 85.86 %.

Table 7.4 Sample description of main surveys

		Carrefour (n=425)	
		Yes	No
7-11 (n=427)	Yes	392	35
	No	33	14

After a serious review, furthermore, 48 questionnaires (21 respondents were in Carrefour group and 27 in 7-11 group) were omitted from the surveys due to the respondent answered the questionnaire with more than 10 items marked continually in the same score. These respondents were omitted from the data analysis. In all, 814 usable questionnaires (409 from Carrefour and 405 from 7-11) were obtained from 474 respondents.

7.3.2 Missing Value Analysis

As mentioned above, this research adapted person-administered surveys to complement the computer-administered surveys. However, the person-administered surveys have been criticized for higher missing value bias in general. Missing values may generate bias and affect the reliability of the data. Even though research assistants were told to double check the questionnaire and respondents were asked to fill in the unanswered items, the missing value bias was still apparent.

There are two main reasons for missing value bias in this research. One reason is related to the design of the research question. Some questions about income and education level are very personal, especially for those low educational and low-income consumers and respondents may be reluctant to provide this information. Of course, high-income consumers might also refuse to answer the question because of concern about personal security.

According to the Table 7.2, two respondents refused to answer their income information and 2 respondents refused to answer their education information. The missing value bias problem is trivial representing only 0.422% of failure rate (2/474). However, the question related to the information about other family members is more problematic. Thirteen respondents refused to answer this question as they felt uncomfortable giving information on family members. Kidnapping had become a serious crime in Taiwan and this might explain why respondents refused to sharing this information.

Another reason is related to the data processing error. The accuracy of data processed by computer depends on correct data entry and must be edited, coded and entered into the computer manually. Though this research tried to minimize the data processing errors by establishing careful procedures for verifying each step, the error still arise due to unavoidable humane error (Zikmund, 1997).

A review of the survey results found no missing value problems with the computer-administered surveys but some missing values in the person-administered surveys. Though research assistants were told to double check the questionnaire before the respondent submitted his/her questionnaire, there were still a few missing value problems. Table 7.5 shows the result of missing value analyses.

Table 7.5 Missing value analyses

Items	PC01	PC02	PC03	VC01	VC02	PQP01	PQP02	PQP03	CI01	CI02
Missing Value	1	0	0	0	0	0	0	0	1	1

Items	CI03	RA01	RA02	SL01	SL02	SL03	SR01	SR02	SR03
Missing Value	0	0	0	1	1	1	0	0	1

Items	PBPI01	PBPI02	PBPI03	PBA01	PBA02	FA01	FA02	PQ01	PQ02
Missing Value	1	3	5	1	3	2	4	1	3

Items	PQ03	PR01	PR02	PR03	PR04	Sex	Age	Job	INC	EDU	FAZ
Missing Value	3	2	2	0	2	0	0	0	2	2	13

Note: (1) **PBPI**: private brand purchase intention; **PBA**: private brand attitude; **EDU**: education level; **FAZ**: family size; **INC**: income level; **CI**: consumer innovativeness; **PC**: price consciousness; **PQ**: perceived PB quality; **PR**: perceived risk; **FA**: familiarity with PB; **SR**: store reputation reliance.

(2) The total number of effective questions is 23,304 ($14 \times 427 + 14 \times 425 + 24 \times 474$)

In general, there are two options to deal with missing value problem. Either omit whole questionnaire or replace the missing value. While there is a systemically or serious missing value problem due to the design of the questionnaire, omitting the whole questionnaire is the easiest way to solve the problem. However, if there is no serious missing value problem, replacing the missing values is better than omitting whole item. In this research, therefore, missing values were replaced instead of to omit them.

The statistical software, SPSS, offers five options to replace the missing value: serious means (sets all missing values to the mean of all corresponding non-missing values); mean of nearby point (sets all missing

values to the mean of nearby point); median of nearby points (sets all missing values to the median of nearby point); linear interpolation (sets all missing values to the linear regression prediction value that based on the near by points) and linear trend at point (sets all missing values to the linear regression trend value for that point).

Mean of nearby point method was used for the psychological variable measures such as price-consciousness and PB purchase intention. Because the research selected at least two items to measure one variable, it is easy to apply the mean of nearby point method to predict the missing value. In terms of consumer demography variables, because there is only one item to describe consumer demography variable, it is impossible for this research to use mean of nearby point method. Serious means method, therefore, was applied for consumer demography variables such as income and education level.

Means method might be the easiest one for substituting missing value while use of the mean substitution option may be based on the fact that the mean is a reasonable guess of a value for a randomly selected observation from a normal distribution. Some research such as Acock (2005) argued that the mean substitution approach is not a good solution for missing values because it attenuates variance and often provides poor imputed values. However, the missing values problem is not serious in this research since it only represents 0.18 percent¹⁴ of missing values. Therefore, the impact is trivial.

7.3.3 Reliability and Validity of Constructs

Reliability refers to the extent to which a scale produces consistent results if repeated measurements are made while validity refers to extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured, rather than systematic or random error (Malhotra and Birks, 2006). There are various methods to test the reliability

¹⁴ $56 \div [(14 \times 427) + (14 \times 425) + (24 \times 474)] = 0.0018451$

of measurements. Among these methods, Cronbach's alpha (α) and average variance extracted (AVE) analysis are most popular methods to evaluate the reliability of research constructs.

Cronbach's alpha (α) analysis is a common method to measure the internal consistency reliability of a psychometric instrument. Cronbach's alpha will generally increase when the correlations between the items increase. For this reason the coefficient is also called the internal consistency or the internal consistency reliability of the test. Hair et al. (1998) suggested that Cronbach's alpha should be greater or equal to 0.6 whilst 0.7 was desirable.

Average variance extracted (AVE) analysis is another method to measure the reliability of the factor. Bagozzi and Yi (1988) and Bagozzi and Baumgartner (1994) suggested a criteria for AVE that it should be greater or equal to 50 %. Table 7.5 lists the constructs and the results of reliability statistics.

Table 7.6 shows that the reliabilities of all the constructs are quite high. All Cronbach's alpha values in this research are above 0.7 and represent good reliabilities of all constructs. Likewise, Table 7.4 shows that the validities of all the constructs are quite high. Variance extracted was used to gauge convergent validity in this research (Fornell and Larker, 1981). All variance-extracted values in this research are above 60 % while the value above 50 % suggests convergent validity.

Table 7.6 Reliabilities of research constructs

Constructs	Number of Items	Cronbach's α	Variance Extracted
Consumer Innovativeness	3	0.86	78%
Price Consciousness	3	0.82	74%
Store Reputation Reliance	3	0.77	68%
PB Purchase Intention (Carrefour)	3	0.89	82%
PB Attitude (Carrefour)	2	0.91	91%
Familiarity with PB (Carrefour)	2	0.82	84%
Perceive PB Quality (Carrefour)	3	0.83	75%
Perceived PB risk (Carrefour)	4	0.90	79%
PB Purchase Intention (7-11)	3	0.84	76%
PB Attitude (7-11)	2	0.85	87%
Familiarity with PB (7-11)	2	0.79	82%
Perceive PB Quality (7-11)	3	0.83	75%
Perceived PB risk (7-11)	4	0.92	82%

In short, all indicators show high variance extracted value that ranges from 66 % to 91 % proving convergent validity of the constructs. In the meantime, internal consistency was examined using Cronbach's alpha technique and the coefficient ranges from 0.58 to 0.93 providing acceptable reliability of the measurements.

In terms of the validity of the constructs, this research used content validity (also known as logical validity) method. Content validity refers to the extent to which a measure represents all facets of a given physiologic construct. Usually, content validity method relied on experts to evaluate the validity of the construct. This research applied several skills to increase the content validity. Firstly, all measures were based on previous studies that have been published in at least one major academic journal. Finally, to make sure of the validity, three consumers who had participated focus group discussions

personally validated the translated questionnaire.

7.4 Summary

In conclusion, this research used both person-administered and computer-administered survey methods to collect data. The reason for this research to apply two survey methods is because both methods complete to each other. The computer-administered survey method has the advantage of saving time and money, but the survey results showed limitations in collecting responses from specific groups such as old and less educated samples. By contrast, person-administered method cost more time and money but it offered an opportunity to recruit those groups not captured in the computer-administered surveys.

This research interviewed 270 respondents using the on-line surveys and 204 respondents using the person-administered surveys. A total of 814 usable questionnaires (409 from Carrefour and 405 from 7-11) were obtained from 474 respondents. The item analysis showed a good demographic spread across the samples.

The missing value analysis showed that most missing values were in specific questions such as family size and personal income. Finally, the reliability and validity tests showed that all indicators had high variance extracted value with ranges from 66 % to 91 % proving convergent validity of the constructs. Likewise, most Cronbach's alpha values in this research satisfied the basic requirement proving high internal consistency of the constructs.

Chapter 8 Hypotheses Testing and Results

8.1 Chapter Overview

The previous chapter demonstrated how data was collected from Taiwanese consumers and how the reliability and validity of constructs utilized in this research were tested (see Chapter 7). The objective of this chapter is to test the hypotheses generated from the analysis of the previous literature review and focus group results. Statistical software including SPSS and AMOS were undertaken.

The hypotheses testing can be divided into two parts; the first part is concerned with individual characteristics explained the heterogeneous preferences for private brands. As mentioned in Chapter 3, these individual characteristics can be further categorized into socio-economic, personal and perceptual factors. To understand the correlation between consumers' PB purchase intention and these individual characteristics, this research undertakes intra-brand, inter-brand and pan-brand analyses.

The intra-brand analysis looks into differences between individual variables within a brand (i.e. 7-11 and Carrefour's PB). To understand the heterogeneous preferences for different firm's private brands, this research undertakes the bivariate correlation analysis to test the Carrefour and 7-11 samples separately. The results of intra-brand analysis will be presented in 8.2.1.

The inter-brand analysis compares the same individual characteristics on a brand-by-brand basis (i.e. 7-11 versus Carrefour brand and PB versus non-PB). This research first clusters data into four clusters of consumers to see what degree those different variables (e.g. price consciousness and consumer innovativeness) can work in separating buyers who have different brand preference. The results of inter-brand analysis will be presented in 8.2.2.

The pan-brand analysis includes regression analysis and the bivariate correlation analysis to test the predicting power among variables. Because 7-11 and Carrefour's PB are both 'private brands', the 7-11 and Carrefour samples can be treated as one sample for analysis. The pan-brand analysis tests which variables (i.e. socio-economic, personal and perceptual variables) have better predicting power for PB purchase intention than others. The results of pan-brand analysis will be presented in 8.2.3.

The second part of the hypothesis testing is concerned with testing the research model predicting Taiwanese consumer's PB purchase behaviours. The research model was designed based on the results of focus group discussion (see Chapter 5) and this chapter performed the structural equation modelling (SEM) to test the proposed model in two international retailers in Taiwan. The results of goodness-of-fit showed that the research model is good in predicting Taiwanese consumers' PB purchase behaviours. The results will be presented in 8.3.1. The final section 8.4 summarizes the results and findings in this chapter.

8.2 Results of Intra-brand, Inter-brand, and Pan-brand Analysis

This research outlines three ways of considering the data including intra-brand, inter-brand, and pan-brand analysis.

8.2.1 Intra-brand Analysis

To explain heterogeneous preferences for different retailers' private brands, this research uses intra-brand analysis that includes the bivariate correlation analysis and the analysis of variance (ANOVA) to look into the differences between individual variables within 7-11 and Carrefour's PB. This research first undertakes the bivariate correlation analysis to test the overall relationships among all variables (see Table 8.1 below) within 7-11 and Carrefour's PB and then runs ANOVA to further understand the within differences between demographic variables and PB purchase intention in the

Carrefour and 7-11 samples.

8.2.1.1 Bivariate Correlation Analysis

The bivariate correlation analysis allows us to understand the correlation among all variables used in the survey instrument. Therefore, this research runs bivariate correlation analysis to test the overall relationships among all variables drawing on previous studies. As mentioned in Chapter 3, previous studies have identified numerous variables that might have correlation with the PB purchase behaviours. Among these variables, this research selected 12 critical variables that can be used in explaining the heterogeneous preferences for different retailers' PB.

Both rank-order and product-moment correlation coefficients were used as the research collected both ordinal and numeric data. Rank-order correlation coefficient, which is also known as Spearman's rho, analyses for ordinal variables such as income levels while product-moment correlation coefficient, also known as Pearson's r, analyzes for numeric variables such as price consciousness from seven-Likert scales. Table 8.1 shows the variable types, analysis methods and expected relationship.

Table 8.1 Variable types, methods and expected relationship

Variable	Type	Method	Hypotheses and Expected Relationship
Socio-economic Variables			
AGE	Ordinal	Rank-order correlation analysis	H1-1 (?)
EDU	Ordinal	Rank-order correlation analysis	H1-2 (-)
FAZ	Ordinal	Rank-order correlation analysis	H1-3 (+)
INCOME	Ordinal	Rank-order correlation analysis	H1-4 (-)
Personal Variables			
CI	Numeric	Product-moment correlation analysis	H2-1 (+)
Perceptual Variables			
PC	Numeric	Product-moment correlation analysis	H3-1 (+)
PQ	Numeric	Product-moment correlation analysis	H4-1 (+)
PR	Numeric	Product-moment correlation analysis	H5-1 (-)
FA	Numeric	Product-moment correlation analysis	H6-1 (+)
SR	Numeric	Product-moment correlation analysis	H7-1 (+)

Note: **EDU**: education level; **FAZ**: family size; **CI**: consumer innovativeness; **PC**: price consciousness; **PQ**: perceived PB quality; **PR**: perceived PB risk; **FA**: familiarity with PB; **SR**: store reputation reliance

As has been mentioned in Chapter 7, this research has collected 814 useful samples including 405 from 7-11 and 409 from Carrefour respondents. Table 8.2 shows the bivariate correlation analysis the results from the 7-11 samples while Table 8.3 shows the results from the Carrefour samples. Both tables show the correlation coefficients among all variables. Further discussion of the results of bivariate correlation analysis is in the next section.

Table 8.2 Correlation matrix – 7-11 samples (n=405)

	1. PBPI	2. PBA	3. CI	4. PC	5. PQ	6. PR	7. FA	8. SR	9. AGE	10. EDU	11. FAZ	12. INC
1.	1.00											
2.	.79**	1.00										
3.	.15**	.15**	1.00									
4.	.04	.07	.15**	1.00								
5.	.58**	.63**	.18**	.10*	1.00							
6.	-.17**	-.15**	-.01	-.03	-.29**	1.00						
7.	.66**	.56**	.08	.10*	.53**	-.23**	1.00					
8.	.17**	.22**	.14**	-.02	.21**	.00	.09*	1.00				
9.	-.08*	-.07	.00	-.04	-.04	-.06	-.06	.21	1.00			
10.	.02	.04	-.07	.07	.02	-.01	-.01	-.04	-.29	1.00		
11.	.13**	.09*	.03	.03	.11*	.00	.13**	-.01	.03	-.12*	1.00	
12.	-.13**	-.12**	-.02	-.07	-.11*	.02	-.12**	.22**	.55**	-.03	-.10*	1.00
Mean	4.09	4.00	4.84	4.55	4.39	2.75	4.25	4.47	2.31	3.96	3.91	2.17
SD	1.09	1.13	1.13	1.40	1.05	1.03	1.31	1.13	.94	.92	1.65	.83

Table 8.3 Correlation matrix – Carrefour samples (n=409)

	1. PBPI	2. PBA	3. CI	4. PC	5. PQ	6. PR	7. FA	8. SR	9. AGE	10. EDU	11. FAZ	12. INC
1.	1.00											
2.	.83**	1.00										
3.	.04	.03	1.00									
4.	.24**	.22**	.12**	1.00								
5.	.56**	.62**	.10*	.13**	1.00							
6.	-.36**	-.40**	.03	-.08*	-.38**	1.00						
7.	.65**	.58**	.09*	.23**	.51**	-.20**	1.00					
8.	.08*	.09*	.09*	-.03	.13**	.04	.12**	1.00				
9.	.06	.03	-.03	-.03	.09*	-.17**	.12**	.10*	1.00			
10.	-.14**	-.11*	-.07	.05	-.19**	.14**	-.15**	-.11*	-.30**	1.00		
11.	.05	-.01	.01	-.01	.03	.01	.07	.06	.03	-.14**	1.00	
12.	-.02	-.03	-.04	-.02	.01	-.05	-.04	.06	.53**	.00	-.11*	1.00
Mean	3.32	3.40	4.79	4.55	4.04	3.28	3.19	4.44	2.30	4.00	3.83	2.18
SD	1.18	1.21	1.14	1.39	1.03	1.13	1.36	1.15	.90	.92	1.68	.83

NOTE: (1) ** p<0.01 (one-tailed); *p<0.05(one-tailed). (2) 1-8 Pearson's r ; 9-12 Spearman's ρ. (3) **PBPI**: private brand purchase intention; **PBA**: private brand attitude; **CI**: consumer innovativeness; **PC**: price consciousness; **PQ**: perceived PB quality; **PR**: perceived PB risk; **FA**: familiarity with PB; **SR**: store reputation reliance; **EDU**: education level; **FAZ**: family size; **INC**: income level.

8.2.1.2 Result Discussion

Table 8.4 below summarizes the research hypothesis and the results of bivariate correlation analysis. As has been discussed in Chapter 3, Hypothesis 1 predicted that PB purchase intention is related to consumers' socio-economic characteristics such as age, income, education level and family size. Hypothesis 2 pertained to the correlations between purchase intention and the consumer personal characteristic (i.e. consumer innovativeness). Hypothesis 3 to 7 concerned the correlation between the perceptual related constructs and PB purchase intention.

Table 8.4 shows that in terms of socio-economic variables, the correlation between consumer characteristics and PB purchase intention of the 7-11 and Carrefour samples are quite different. Though this research collected the 7-11 and Carrefour's questionnaires from the same people having the same socio-demographic characteristics, they might have different preferences in different retailers' PB products. For example, a young consumer might have high intention to buy 7-11's PB but low intention to buy Carrefour's PB.

In the 7-11 samples, PB purchase intention is significantly related to age, albeit at a low confidence level of 95 per cent (Spearman's $\rho = -0.08$, $p < 0.05$). The younger a person is, the more likely this person will be a 7-11 brand shopper. On the contrary, in the Carrefour samples, the trend is different that there is a positive correlation between age and PB purchase intention. But the correlation is not statistically significant. This finding supports Hypothesis 1-1 that predicted no relationship between age and PB purchase intention.

In the Carrefour samples, PB purchase intention is significantly negatively related to education level, at a high confidence level of 99 per cent (Spearman's $\rho = -0.14$, $p < 0.01$). The poorer education a person has, the more likely this person will be a Carrefour brand shopper. In the 7-11 samples, whilst the trend is the same, it is not statistically significant. In

general, consumers with lower education level have higher willingness to buy Carrefour's PB. This finding supported Hypothesis 1-2 predicted a negative relationship between consumers' education level and PB purchase intention.

Family size plays a role in PB purchase intention. In the 7-11 samples, there exists a significantly positive correlation between family size and PB purchase intention (Spearman's $\rho = 0.13$, $p < 0.01$). This means that consumers from larger families have higher motivation to buy 7-11's PB products. In the Carrefour samples, whilst the trend is the same, it is not statistically significant. In short, Hypothesis 1-3 that predicted a positive relationship between consumers' PB intention and their household size is supported only in the 7-11 samples.

Income has a very significantly negative impact on PB purchase intention in the 7-11 samples (Spearman's $\rho = -0.13$, $p < 0.01$). The lower income a consumer has, the more likely he or she will buy 7-11's PB products. In the Carrefour samples, although there is a negative correlation between income level and PB purchase intention, it is not statistically significant. In short, Hypothesis 1-4 that predicted a negative relationship between consumers' PB purchase intention and their income level is supported in the 7-11 samples.

Consumer innovativeness has a very significant correlation with PB purchase intention in the 7-11 samples. As shown in Table 8.4, the findings support Hypothesis 2-1 that predicted positive relationships between consumer innovativeness and PB purchase intention (Pearson's $r = 0.15$, $p < 0.01$) in the 7-11 samples. In the Carrefour samples, although PB purchase intention is skewed toward higher innovative consumers, it is not statistically significant.

Table 8.4 Results of intra-brand analysis on the 7-11 and Carrefour sample

7-11 (n=405)		Hypotheses		Carrefour (n=409)	
Relationship	Result			Relationship	Result
Socio-economic Variables					
$\rho = -0.08^*$	Rejected	H1-1	AGE and PBPI	$\rho = 0.06$	Accepted
$\rho = -0.02$	Rejected	H1-2	EDU and PBPI	$\rho = -0.14^{**}$	Accepted
$\rho = 0.13^{**}$	Accepted	H1-3	FAZ and PBPI	$\rho = 0.05$	Rejected
$\rho = -0.13^{**}$	Accepted	H1-4	INC and PBPI	$\rho = -0.02$	Rejected
Personal Variables					
$\rho = 0.15^{**}$	Accepted	H 2-1	CI and PBPI	$\rho = 0.04$	Rejected
Perceptual Variables					
$r = 0.04$	Rejected	H 3-1	PC and PBPI	$r = 0.24^{**}$	Accepted
$r = 0.58^{**}$	Accepted	H4-1	PQ and PBPI	$r = 0.56^{**}$	Accepted
$r = -0.017^{**}$	Accepted	H5-1	PR and PBPI	$r = -0.36^{**}$	Accepted
$r = 0.66^{**}$	Accepted	H6-1	FA and PBPI	$r = 0.65^{**}$	Accepted
$r = 0.17^{**}$	Accepted	H7-1	SR and PBPI	$r = 0.08^*$	Accepted

NOTE: (1) ** $p < 0.01$ (one-tailed); * $p < 0.05$ (one-tailed). (2) **PBPI**: private brand purchase intention; **EDU**: education level; **FAZ**: family size; **INC**: income level; **CI**: consumer innovativeness; **PC**: price consciousness; **PQ**: perceived PB quality; **PR**: perceived PB risk; **FA**: familiarity with PB; **SR**: store reputation reliance.

In general, consumer perceptual characteristics are more correlated with PB purchase intention as compared with socio-economic variables. Table 8.4 shows that the intra-brand perceptual structures of PB purchase intention on the 7-11 and the Carrefour samples are quite similar and significant except for price consciousness. Price consciousness exerts a greater influence on PB purchase intention in the Carrefour samples than in the 7-11 samples. Price conscious consumers are more inclined to buy Carrefour's PB than other consumers. In the 7-11 samples, the trend is the same but it is not statistically significant. In short, the results of the bivariate correlation show that Hypothesis 3-1 that predicted positive relationships between price consciousness and PB purchase intention is supported (Pearson's $r = 0.24$, $p < 0.01$) in the Carrefour samples.

In both the 7-11 and Carrefour samples, quality conscious, risk-averse, store reliant and PB familiar consumers are more likely to have higher PB purchase intention. More specifically, in both the 7-11 and Carrefour samples, PB buyers are significantly positively related to perceived PB quality (in the 7-11 samples, Pearson's $r = 0.58$, $p < 0.01$; in the Carrefour samples, Pearson's $r = 0.56$, $p < 0.01$). Therefore, Hypothesis 4-1 that predicted positive relationships between perceived PB quality and PB purchase intention is supported. Besides, it is important to notice that perceived PB quality has the second strongest correlation with PB purchase intention in both samples.

The findings support Hypothesis 5-1 that predicted negative relationships between perceived risk of PB and PB purchase intention (in the 7-11 samples, Pearson's $r = -0.17$, $p < 0.01$; in the Carrefour samples, Pearson's $r = -0.36$, $p < 0.01$). This means that on the one hand, when consumers perceive higher risk toward a specific retailer's PB, they are less likely to buy the retailer's PB products. On the other hand, this also means that risk-averse consumers are less likely to buy PB products since they are more sensitive and tend to avoid the perceived risk.

Consumers' familiarity with PB was significantly correlated with PB purchase intention in this research (in the 7-11 samples, Pearson's $r = 0.66$, $p < 0.01$; in the Carrefour samples, Pearson's $r = 0.65$, $p < 0.01$). This finding supports Hypothesis 6-1 that predicted positive relationships between familiarity with PB and PB purchase intention. This means when consumers are more familiar with a specific retailer's PB, they will have higher intention to buy it. Therefore, it is vital for international retailers to educate and to offer more information to their consumers to increase their familiarity with their PB.

Finally, the bivariate correlation analysis supports Hypothesis 7-1 concerning the correlation between store perceptual constructs and PB and purchase intention. Store reputation reliance exerts slightly greater influence on PB purchase intention in the 7-11 samples than in the Carrefour samples (in the 7-11 samples, Pearson's $r = 0.17$, $p < 0.01$; in the Carrefour samples, Pearson's $r = 0.08$, $p < 0.05$). That means when consumers have more confidence in a retailer, they might have more confidence in the quality of its PB.

In this section, the research has demonstrated that the correlation between PB purchase intention and the consumers' socio-economic characteristics is different for the Carrefour and the 7-11 samples. However, more detailed information about the correlation between the demographic differences and PB purchase intention is still needed. For example, the results of bivariate correlations analysis show a positive correlation between family size and PB purchase intention in the 7-11 samples. But it is interesting to further ask which family size is most likely or unlikely to buy 7-11's PB products. Without the information, it is difficult to offer a managerial implication and a conclusion. Therefore, in the next section, this research will look at the differences between demographic variables and PB purchase behaviours in the Carrefour and 7-11 samples.

8.2.1.3 Demographic Differences for PB Purchase Behaviours in the Carrefour and 7-11 Samples

In this section, ANOVA is used to further discuss within differences between demographic variables and PB purchase behaviours in the Carrefour and 7-11 samples. Though this research collected data from the same people giving response to 7-11 and Carrefour, the same person can have a different intention to buy 7-11 and Carrefour' private brands. For example, a poor consumer might like buying Carrefour's PB but he/she might dislike buying 7-11's PB.

Table 8.5 below shows the results of ANOVA test. In the previous section, the bivariate correlations indicate that young consumers have a higher purchase intention toward 7-11's PB products. Table 8.5, however, does not find any statistical differences in PB purchase intention by age in the 7-11 samples. These evidences suggest that though there is a tendency for younger consumers to have a higher purchase intention toward 7-11's PB products, the differences in purchase intention among age groups is not significant enough to satisfy the statistical requirement. More specifically, though the younger (18-25) group has the highest mean score ($\mu=4.32$) in 7-11's PB purchase intention than other groups, the results of the 7-11 samples show that there is no statistical difference in the means for PB purchase intention by age.

The result suggests that there is no significant difference in purchase intention of 7-11's PB among different age groups. Though this finding is dose not refute Hypothesis 1-1 arguing both older and younger consumers might purchase PB, there is no evidence to support the position that older consumers have higher intention to buy 7-11's PB products. In the meanwhile, the finding is supported from Carrefour's samples. In the Carrefour sample, the findings indicate that both younger (18-25) and older (over 45) groups tend to have higher mean score ($\mu=3.65$; $\mu=3.43$) than other groups for PB purchase intention. Therefore, Hypothesis 1-1 is supported only in the Carrefour samples.

Table 8.5 also indicates the differences in the level of education with respect to PB purchase intention (F-Value = 2.43, $p < 0.05$). More specifically, less educated consumers (Junior High/Primary) have the highest mean score ($\bar{x} = 4.78$) in terms of Carrefour's PB purchase intention than other groups. College graduated consumers have second highest mean score and followed by consumers who graduated from senior high school.

On the contrary, consumers with a masters or higher degree have the lowest score in terms of PB purchase intention ($\bar{x} = 3.15$) in the Carrefour samples. This means that less educated consumers (Junior High/Primary) have higher intention to buy Carrefour's PB products than high-educated consumers (Advanced degree). This result supports Hypothesis 1-2 that predicts a negative relationship between consumers' education level and PB purchase intention.

The analysis, however, does not find any statistical differences in the PB purchase intention by gender, personal income or family size in the Carrefour samples. Although this research predicted that consumers who have lower income and live in the large size family might prefer to buy PB products, the analysis has no statistically significant results in the Carrefour samples. This finding is consistent with the results of the bivariate correlation analysis in 8.2.1.2.

Table 8.5 Demographic differences for PB purchase intention

Demographic Variable	Carrefour		7-11	
	Means for PBPI	F Value	Means for PBPI	F Value
Gender				
Female	3.25	2.14	4.11	0.07
Male	3.42		4.08	
Age				
18-25	3.43	2.66*	4.32	1.84
25-34	3.18		4.05	
35-44	3.35		3.95	
Over 45	3.65		4.11	
Education				
Junior High/Primary	4.78	2.43*	4.89	1.18
Senior high	3.50		3.88	
College	3.56		4.31	
University	3.32		4.08	
Advanced degree	3.15		4.09	
Family Size				
1	3.33	1.33	4.11	1.98 ⁺
2	3.03		3.62	
3	3.21		3.97	
4	3.56		4.15	
5	3.28		4.26	
6	3.33		4.19	
>7	3.29		4.09	
Income				
< 20,000 NT	3.42	0.51	4.29	2.55 ⁺
20,000-40,000	3.24		4.14	
40,000-100,000	3.36		3.91	
> 100,000 NT	3.27		3.91	

Note: *p<0.05; +p<0.1

Demographic profiles for the measure of 7-11's PB purchase intention are shown in the right side of Table 8.5 above. The ANOVA results show that in the 7-11 samples, there are some statistical differences in the family size and income level but not in age and education level. On the contrary, as mentioned earlier, in the Carrefour samples, there are some statistical differences in the age and education level but not in family size and income level.

In the 7-11 samples, the ANOVA shows that the means for PB purchase intention differs by family size (F-Value = 1.98, $p < 0.1$). More precisely, the majority of those living in a household with five members are most likely to buy PB ($\bar{x} = 4.26$) and households with six members have the second highest mean score in PB purchase intention ($\bar{x} = 4.19$). On the contrary, smaller households with two ($\bar{x} = 3.62$) or three ($\bar{x} = 3.97$) members are less likely to buy PB. Though a consumer living alone has higher 7-11's PB purchase intention than those living with seven members, consumers from larger families are more likely to buy 7-11's PB product than those from smaller families in general. This result supports Hypothesis 1-3 that predicts a positive relationship between consumers' PB intention and their household size.

The results of the analyses of variance also finds the means for PB purchase intention (F-Value = 1.98, $p < 0.1$) differ by income level. Consumers who earn 20,000 NT dollars or less per month have a more positive PB attitude ($\bar{x} = 4.17$) while consumers who earn between 40,000 NT to 100,000 NT dollars per month have a less positive attitude ($\bar{x} = 3.81$) toward 7-11's PB. Meanwhile, consumers who earn 20,000 NT dollars or less per month exhibit the highest purchase intention ($\bar{x} = 4.29$) toward 7-11's PB, followed by consumers who earn 20,000-40,000 NT dollars per month ($\bar{x} = 4.14$). This result supports Hypothesis 1-4 that predicts a negative relationship between consumers' PB purchase intention and their income level.

In conclusion, although 7-11 and Carrefour samples are accessibility samples, the results pertaining to socio-demographic characteristics and PB attitude and PB purchase intention differ between the two stores. Table 8.5 shows that older groups (over 45) and less educated consumers (Junior High/Primary) have the highest PB purchase intention in the Carrefour samples while consumers from medium families (family size = 5) and who earn 20,000NT dollars or less per month have the highest PB purchase intention in the 7-11 samples (see Table 8.5). This information will be very useful for PB manager to target their customers in the market.

8.2.1.4 Conclusion of Intra-brand Analysis

The results of intra-brand analysis show inconsistent findings in the 7-11 and Carrefour samples. As Table 8.4 shows, the results from bivariate correlation analysis indicate that Hypothesis 1-1, 1-2 and 3-1 are rejected in the 7-11 samples while Hypothesis 1-3, 1-4 and 2-1 are rejected in the Carrefour samples. In terms of the socio-demographic characteristics, though all hypotheses are supported, it is important to notice that the relationship exists either in the 7-11 or in the Carrefour samples. Generally speaking, males, aged over 45, educated junior high or less, living in four person household and earned less than 20,000 NT dollars consumers were more likely to be the Carrefour's PB buyers. Meanwhile, female, aged 18 to 25, educated junior high or less, living in five person household and earned less than 20,000 NT dollars consumers were more likely to be the 7-11's PB buyers.

In terms of the personal and perceptual characteristics, the findings are more consistent and significant than socio-economic characteristics. Except for consumer innovativeness and price consciousness, all hypotheses are supported in both 7-11 and Carrefour's samples. In general, quality conscious, innovative, familiarizing with 7-11's PB, relied on store reputation and risk-averse consumers are more likely to be the PB buyers. Meanwhile, price conscious, quality conscious, familiarizing with Carrefour's PB, relied on store reputation and risk-averse consumers are

more likely to be the Carrefour's PB buyers.

8.2.2 Inter-brand Analysis

Inter-brand analysis compares the same individual characteristics on a brand-by-brand basis. Since this research argues different retailers' own brands have their own characteristics, inter-brand analysis is good for the purpose of looking into the differences between's 7-11 and Carrefour's private brands and more interesting it indicates those customers who wish to buy or not PB products. This research first uses cluster analysis to separate distinct group of consumers based on their purchase intention toward different retailers' PB and then testes the differences between brands with discriminant analysis.

8.2.2.1 Cluster Analysis

Inter-brand analysis looks at the difference between brands (i.e. 7-11 verse Carrefour's PB and PB verse non-PB). To understand whether different brand buyers have different reasons for their brand choice, using cluster analysis to categorize consumers into different subgroups is important. Depending on each respondent's brand preference, the respondents were classified as either 7-11, Carrefour, PB or non-PB buyers. Further definition will be discussed later.

In this research, there are two layers of brands in this research. On the one hand, 7-11 and Carrefour's PB can be treated as two different brands since this research argues that 7-11 and Carrefour offer different values for their customers with their PB products. Therefore, the first inter-brand analysis will focus on the difference between these two retailers' PB.

The second inter-brand analysis will focus on the difference between PB and non-PB. As mention before, since PB can be defined as a brand controlled and sold by retailers, it is reasonable for this research to define consumers who like buying both 7-11 and Carrefour's PB as PB buyers. On the

contrary, this research defines those consumers who do not like buying both 7-11 and Carrefour's PB as non-PB buyers. Although it is too general to conclude all non-PB brands as a kind of brand, it is still useful for this study to investigate the characteristics of PB.

To compare the characteristics of different brands' buyers, this research first compares consumers that have higher purchase intention and those that have lower purchase intention toward both 7-11 and Carrefour's PB. To filter out these consumers, this research first undertakes cluster analysis which is good at assigning consumers into groups (called clusters) so that consumers from the same cluster are more similar to each other than consumers from different clusters.

Before cluster analyses, it is important to reselect the samples. Participants who only replied to either 7-11 or Carrefour questions were removed from the samples because the research objects are consumers who have higher and lower purchase intention toward both 7-11 and Carrefour's PB. In this section, therefore, this research targets the participants that answered both 7-11 and Carrefour questions. In short, 363 useable samples (i.e. 392 minus 29 failure replies) were selected.

Using software SPSS, this research uses K-means cluster analysis on the basis of Euclidean distances (Hair et al., 1998). This research also runs ANOVA analysis to understand the differences among four clusters. ANOVA compares the amount of variation between the samples with the amount of variation within each sample – hence the name 'analysis for variation' (Argyrous, 2005). To test the means for more than two or more samples, F-test is required. Table 8.6 shows the results of cluster analysis.

This research selects to use four clusters including non-PB buyers, Carrefour buyers, 7-11 buyers and PB buyers because it adds more substantial insight than other clusters. The results of ANOVA rest shows that there is a statistically significant difference among four clusters (i.e. F-value = 254.67 in PBPI-Carrefour, $p < 0.01$ and F-value = 294.86 in PBPI-7-11,

$p < 0.01$). This means that it is appropriate for this research to select four clusters to separate research samples. In Table 8.6, this research summarizes the description of these four clusters.

Table 8.6 Description of four clusters

Cluster Number	Mean Score for		Number of Observations
	PBPI -Carrefour	PBPI -7-11	
1. Non-PB Buyers	1.33	1.67	61
2. Carrefour Buyers	5.00	2.00	143
3. 7-11 Buyers	1.00	5.33	73
4. PB Buyers	5.33	6.00	86
ANOVA Test Results			
(F-test)	254.67**	294.86**	n = 363

Notes: (1) **p<0.01. (2) **PBPI**: private brand purchase intention.

Table 8.7 below shows the demographic description of four clusters. The first cluster comprises consumers with low purchase intention in both Carrefour and 7-11 (mean score for 1.33 in PBPI-Carrefour; 1.67 in PBPI-7-11) as non-PB buyers. These consumers show less willingness in purchasing any PB products in this study. These consumers might be manufacturer brands or generic buyers. So this research selects a more general-term that non-PB buyers to represent these consumers. In addition, Table 8.7 shows that non-PB buyers have relatively higher education level than other clusters. About 40 percent of non-PB buyers have master or higher degree. In the meanwhile, non-PB buyers are less likely to be poor consumers since only about 15 percent of non-PB buyers earn less than 20,000 NT dollars per month. The total number of the non-PB buyers is 61.

The second cluster contains consumers with high purchase intention in Carrefour but low intention in 7-11 (mean score for 5.00 in PBPI-Carrefour; 2.0 in PBPI-7-11) as Carrefour's PB buyers. These consumers are the largest group in this research and the total number of Carrefour's PB buyers is 143. In terms of demographic characteristics, Carrefour's PB buyers are living in a relatively larger household and have lower income than other clusters. Table 8.7 shows that about 45 percent of Carrefour's PB buyers are living in a household with five or more members and 65 percent of them earn less than 40,000 NT dollars per month.

In contrast with cluster two, the third cluster contains consumers who have high purchase intention in 7-11 but low intention in Carrefour and this research defines these consumers as 7-11's PB buyers. These consumers like 7-11's PB products and have less willingness to buy Carrefour's PB products. It is interesting that Table 8.7 shows that most 7-11's PB buyers are female. The number of female buyers is almost the double of male buyers. In the meanwhile, 7-11's PB buyers are relatively younger than other clusters since about 71 percent of 7-11's PB buyers are under 34 years old. The total number of 7-11's PB buyers is 73.

This research lastly defines fourth cluster consumers who have high purchase intention in both Carrefour and 7-11 (mean score for 5.33 in PBPI-Carrefour; 6.0 in PBPI-7-11) as PB buyers. These consumers show high willingness in purchasing both Carrefour and 7-11's PB products in this study and the total number of observations is 86. In addition, Table 8.7 shows that PB buyers have relatively lower income than other clusters. About 63 percent of them earn less than 40,000 NT dollars per month.

In the next section, this research will use discriminant analysis to understand the differences between demographic variables in brands. Discriminant analysis is a technique for classifying a set of observations into predefined classes and to determine which variables discriminate between two or more naturally occurring groups. It is a very valuable tool for understanding market segmentation such as generic and non-generic buyers (e.g. McEnally and Harris, 1984) and PB and national brand buyers (e.g. Burger and Schott, 1972). This research first compares 7-11 and Carrefour's PB buyers in 8.2.2.2 and then PB and non-PB buyers in 8.2.2.3.

Table 8.7 Demographic description of four clusters

Demographic Variable	Cluster 1 (Non-PB Buyers)	Cluster 2 (Carrefour Buyers)	Cluster3 (7-11 Buyers)	Cluster 4 (PB Buyers)
Gender				
Female	31	81	46	44
Male	30	62	27	42
Age				
18-25	3	29	15	15
25-34	34	67	37	40
35-44	13	29	15	12
Over 45	11	18	6	19
Education				
Junior	0	1	0	2
High/Primary	6	15	5	9
Senior High	5	10	7	11
College	25	84	37	40
University	25	33	24	24
Advanced Degree				
Family Size				
1	9	11	11	11
2	11	16	7	5
3	10	28	12	8
4	13	31	16	31
5	10	31	13	19
6	6	14	8	9
>7	2	12	6	3
Personal Income				
< 20,000 NT	9	32	17	24
20,000-40,000	21	61	36	30
40,000-100,000	26	49	19	26
> 100,000 NT	5	1	1	6

8.2.2.2 Carrefour Buyers and 7-11 Buyers

The first inter-brand analysis focuses on the Carrefour and 7-11's PB buyers. As mentioned earlier, this research defined consumers who have high purchase intention in 7-11 but low purchase intention in Carrefour's PB as 7-11's PB buyers. Contrariwise, consumers who have low purchase intention in 7-11 but high purchase intention in Carrefour's PB are Carrefour's PB buyers. To test what variables can be used to separate Carrefour's PB buyers from 7-11's PB buyers, this research undertakes discriminant analysis to test and analyze the data in pair.

In Table 8.8, this research summarizes the results of discriminant analysis. The results of the discriminant analysis provided several interesting findings. First, the over all (multivariate) test of group separation indicated that 7-11 and Carrefour's PB buyers, in fact, differ in terms of their psychological characteristics (i.e. price consciousness and store reputation reliance). But there is no evidence to support the argument that the difference between 7-11 and Carrefour's PB buyers exists in terms of their demographic characteristics. As shown in Table 8.8, the overall significance of the first discriminate function was significant at the 0.05 level.

The table then shows that the demographic variables have no significant difference for 2 and 3 clusters (F-value range from 0.46 to 1.76). Specifically, although Carrefour's PB buyers are older, richer, lower educated and have larger family size than 7-11's PB buyers, all these differences are not significant ($p > 0.1$). This refers to that there is no statistical evidence to support that socio-economic variables are good in separating 7-11's PB buyers from Carrefour's PB buyers.

Price consciousness has the most power in separating separate Carrefour's PB buyers from 7-11's PB buyers (standardized discriminant coefficient = 0.78; discriminant loading = 0.58). It is significant that Carrefour's PB buyers have higher price consciousness than 7-11's PB buyers ($\mu = 4.68$ for Carrefour; $\mu = 3.98$ for 7-11; F value = 12.90, $p < 0.05$). On the one hand, it is

reasonable to predict that Carrefour's PB offers more value in price saving than 7-11's PB, and on the other hand, it is reasonable to argue that Carrefour have more ability to attract price conscious consumers with their PB than 7-11.

In terms of store reputation reliance, it has the second high power in separating separate Carrefour's PB buyers from 7-11's PB buyers (standardized discriminant coefficient = -0.54; discriminant loading = -0.50). 7-11's PB buyers have significantly higher reliance on store image than Carrefour's PB buyers ($\mu=4.32$ for Carrefour's PB buyers; $\mu=4.71$ for 7-11's PB buyers; F value =6.43, $p<0.05$). This result indicates that though both 7-11 and Carrefour are famous international retailers in Taiwan, the effect of store reputation is significant differences between retailers. Obviously, a good store image contributes to the purchase of 7-11's PB products but not Carrefour's PB. Finally, in terms of consumer innovativeness, there is no statistically significant difference between 7-11's PB buyers and Carrefour's PB buyers.

Table 8.8 Discriminant analysis of 7-11 buyers and Carrefour buyers

Variables	Mean Values		F Value	P Value	Standardized Discriminant Coefficient	Dis -criminant Loading
	7-11 buyers	Carrefour buyers				
AGE	2.25	2.16	0.46	0.500	-0.08	-0.09
INCOME	2.13	2.05	0.52	0.473	0.36	0.48
EDU	3.93	4.10	1.76	0.186	-0.32	-0.37
FSZ	4.01	3.84	0.53	0.468	0.08	0.05
PC	4.68	3.98	12.90	0.000**	0.78	0.58
CI	4.76	4.73	0.04	0.838	0.02	0.02
SR	4.32	4.71	6.43	0.012*	-0.54	-0.50
Overall significance of the first discriminate function				0.038*		

Notes: (1) * $p<0.1$. (2) **EDU**: education level; **FAZ**: family size; **PC**: price consciousness; **CI**: consumer innovativeness; **SR**: store reputation reliance.

In addition, this research did not test the predictive power of other perceptual variables such as perceived PB quality, familiarity with PB and perceived risk of PB because as mentioned in Chapter 3, these three variables are brand specific perceptual variables. It is not appropriate to use these brand specific variables to test the difference between brands. Besides, there might be both direct and indirect correlation among these variables. Therefore, further discussion concerns with the correlation between consumers' characteristics and PB purchase behaviour will be hold in 8.3.

8.2.2.3 PB Buyers and Non-PB Buyers

The second inter-brand analysis focuses on the PB and non-PB buyers. In 8.2.2, this research has defined consumers who have high purchase intention in both 7-11 and Carrefour's PB as PB buyers. On the contrary, consumers who have low purchase intention in both 7-11 and Carrefour's PB are defined as non-PB buyers. Again, this research runs discriminant analysis to understand the differences between consumer characteristics and two groups of buyers (i.e. PB and non-PB buyers).

Early research, Frank and Boyd (1965) concluded that both PB and manufacturer brands are consumed by the same consumers. But as time goes by, it is possible to find some differences between PB and non-PB buyers. This research, therefore, runs discriminant analysis to retest whether PB and non-PB buyers have the same demographic and psychological characteristics. The results of the discriminant analysis disagree with the Frank and Boyd's conclusion in 1965.

Table 8.9 first shows that the overall (multivariate) test of group separation indicated that PB buyers differ from non-PB buyers in terms of their psychological (i.e. consumer innovativeness and store reputation reliance) and demographic characteristics (i.e. income level and family size). Specifically, in Table 8.9, this research summarizes the results. The table shows that two demographic variables have significant difference for 1 and 4 clusters (F-value range from 0.54 to 3.53). Specifically, PB buyers are

younger, poorer, lower educated and from larger family size than non-PB buyers. The result suggests that the effects of income level and family size variables are significant ($p < 0.1$) but not age and education level. Family size has significant power in separating PB buyers from non-PB buyers. In general, PB buyers are from larger household than non-PB buyers ($\mu = 3.49$ for non-PB buyers; $\mu = 3.94$ for PB buyers; F value = 2.76, $p < 0.05$).

Obviously, PB buyers have lower income than non-PB buyers ($\mu = 2.44$ for non-PB buyers; $\mu = 2.16$ for PB buyers; F value = 3.53, $p < 0.05$). Generally speaking, the lower income consumers are more likely than others to buy PB. However, another correlated variable, price consciousness, has the same trend but it shows no statistical significance in separating PB buyers from non-PB buyers.

In terms of perceptual and personal variables, store reputation reliance has the strongest power in separating PB buyers from non-PB buyers (standardized discriminant coefficient = 0.79; discriminant loading = 0.68). PB buyers have significantly higher reliance on store image than non-PB buyers ($\mu = 4.09$ for non-PB buyers; $\mu = 4.78$ for PB buyers; F value = 12.16, $p < 0.01$). This result consists with research expectation since 7-11 and Carrefour are two of leading international retailers in Taiwan. While consumers with faith in the retailer they have faith in its PB.

It is not surprising that consumer innovativeness has power in separating PB buyers from non-PB buyers, but it is very surprising that PB buyers have higher scores on consumer innovativeness than non-PB buyers ($\mu = 5.08$ for non-PB buyers; $\mu = 4.67$ for PB buyers; F value = 3.98, $p < 0.05$). Usually the manufacturers have more capability, resource and supplement to offer novel products than the retailers have. One stereotype of PB is that retailers often use a me-too strategy by offering PB products that have similar design and packaging to the leading national brand products (Hoch, 1996). By offering imitative PB products, retailers can not only reduce the price of PB and steal the market share from national brands quickly.

However, the improvements in packaging design and product quality enabled retailers to compete directly with food manufacturers (Southgate, 1994). Recent studies such as Ailawadi et al. (2001) and Jin and Suh (2005) all indicate that there exist a positive correlation between consumer innovativeness and PB purchase intention. This finding is in line with their results and shows that PB in Taiwan is still treated as new, novel and attracts consumers with innovative personal identity. Further discussions on this finding can be found in Chapter 9.

Table 8.9 Discriminant analysis of PB buyers and non-PB buyers

Variables	Mean Values		F Value	P Value	Standardized Discriminant Coefficient	Dis -criminant Loading
	Non-PB buyers	PB buyers				
AGE	2.52	2.41	0.54	0.463	-0.24	-0.25
INCOME	2.44	2.16	3.53	0.062 ⁺	-0.52	-0.58
EDU	4.13	3.87	2.47	0.118	-0.31	-0.31
FSZ	3.49	3.94	2.76	0.099 ⁺	0.18	0.11
PC	4.51	4.82	1.72	0.192	0.19	0.13
CI	4.67	5.08	3.98	0.048 [*]	0.31	0.25
SR	4.09	4.78	12.16	0.001 ^{**}	0.79	0.68
Overall significance of the first discriminate function				0.037 [*]		

Notes: (1) ^{**}p<0.01, ^{*}p<0.05, ⁺p<0.1. (2) **EDU**: education level; **FAZ**: family size; **PC**: price consciousness; **CI**: consumer innovativeness; **SR**: store reputation reliance.

8.2.2.4 Conclusion of Inter-brand Analysis

The results of cluster and discriminant analysis show that price consciousness is the best and most significant variable in separating Carrefour's PB from 7-11's PB buyers. This result is in line with McGoldrick and Marks' (1987) finding that price is the most important factor to separate Tesco brand buyers from Sainsbury brand buyers in the UK. However, other socio-economic, personal and perceptual variables were found not to be statistically significant. As for the second inter-brand

analysis, store reputation reliance, consumer innovativeness, family size and income level are good in separating PB buyers from non-PB buyers.

Despite the discriminant analysis results showing some statistical differences in socio-economic variables they have relatively limited predictive power to separate PB buyers from non-PB buyers. This result is not surprising because as discussed in Chapter 3, recent research tends to utilise perceptual and personal variables instead of only relying on demographic variables in PB purchasing behaviours. And our research findings verify this argument.

8.2.3 Pan-brand Analysis

Pan-brand analysis collapses the data on different retailers into a single data set. Since 7-11 and Carrefour's PB are owned and branded by the 7-11 and Carrefour, according to the definition¹⁵, they can both be treated as 'private brands'. In this section, to demonstrate the influence of all variables on PB level, this research ignores the store difference in PB purchase intention.

Although this research has found some differences between 7-11 and Carrefour's PB, they might share some common characteristics since they can both be treated as samples of PB. This research first uses bivariate correlation analysis to understand the overall relationships among all variables. Then undertakes logistic regression analysis to test the predict power of these variables.

8.2.3.1 Bivariate Correlation Analysis

A bivariate correlation analysis allows us to understand the correlation among all variables used in the survey instrument. Drawing on previous studies, this research selected 10 dependent (i.e. age, education level, family

¹⁵ According to the Private Label Manufacturers' Association (PLMA), "Private label products encompass all merchandise sold under a retailer's brand. That brand can be the retailer's own name or a name created exclusively by that retailer. In some cases, a retailer may belong to a wholesale group that owns the brands that are available only to the members of the group."

size, income level, consumer innovativeness, price consciousness, perceived PB quality, perceived PB risk, familiarity with PB and store reputation reliance) and 2 independent variables (i.e. PB purchase intention and PB attitude) that might have high correlation with the PB purchase behaviours (see Chapter 3).

As has been mentioned in Chapter 7, this research collected 405 samples from 7-11 and 409 from Carrefour respondents. Therefore, in this section, there are 814 useful samples for pan-brand analysis. Table 8.9 shows the bivariate correlation analysis results from the overall 814 samples.

Generally speaking, the results of bivariate correlation analysis show that PB brand buyers are less educated, living in larger household, earning lower income, innovative, price conscious, risk averse and more relied on store reputation. All findings are consistent with intra-brand analysis in 8.2.1.

More information is revealed from the pan-brand analysis. For example, Table 8.10 shows a positively significant correlation between income and age (Spearman's $\rho=0.54$, $p<0.01$). This result reflected a fact that elderly Taiwanese consumers usually have higher income than younger people. Another possibility is that as stated earlier, the young participants in the surveys are at the beginning of their careers and earning less than those who have been working longer.

It is interesting to notice that store reputation reliance is positively significant correlated to perceived PB quality (Pearson's $r = 0.19$, $p<0.01$). That means when consumers have more confidence in a retailer, they might have more confidence in its PB quality. This finding will be further tested with structural equation model in 8.3 later.

Table 8.10 Overall correlation matrix (n=814)

	1. PBPI	2. PBA	3. CI	4. PC	5. PQ	6. PR	7. FA	8. SR	9. AGE	10. EDU	11. FAZ	12. INC
1.	—											
2.	0.83**	—										
3.	0.09**	0.09*	—									
4.	0.13**	0.14**	0.14**	—								
5.	0.58**	0.64**	0.14**	0.11**	—							
6.	-0.33**	-0.33**	0.00	-0.05	-0.37**	—						
7.	0.69**	0.60**	0.08*	0.15**	0.54**	-0.28**	—					
8.	0.13**	0.18**	0.15**	-0.01	0.19**	0.01	0.12**	—				
9.	-0.01	-0.02	-0.01	-0.03			0.20**	0.03	—			
10.	-0.07*	-0.05	-0.07	0.06	-0.05	-0.09*	-0.12	0.07*	-0.30**	—		
11.	0.09*	0.05	0.02	0.01	0.00	0.09*	0.05	0.00	0.03	-0.13**	—	
12.	-0.07*	-0.07*	-0.03	-0.04	0.19**	-0.07*	0.07	-0.01	0.54**	-0.01	-0.11**	—
Mean	3.71	3.70	4.81	4.55	4.21	3.01	3.72	4.45	2.30	3.98	3.87	2.18
SD	1.20	1.21	1.14	1.40	1.05	1.11	1.43	1.14	0.92	0.92	1.66	0.83

NOTE: (1) ** p<0.01 (one-tailed); *p<0.05 (one-tailed). (2) 1-8 Pearson's r; 9-12 Spearman's ρ

In addition, Table 8.10 also shows a negatively significant correlation between perceive quality and perceive risk of PB (Pearson's $r = -0.37$, $p < 0.01$). This result reflects a fact that while consumers perceived higher risk toward a specific retailer PB, they evaluate the PB with lower quality. This finding will also be further tested with structural equation model in 8.3 later.

Table 8.10 above also displays all the correlations among 11 independent variables and their correlations with the dependent variable (PB purchase intention). Examination of the correlation matrix indicates that PB attitude is the most significant correlated with the dependent variable ($r = 0.83$, $p < 0.01$). The first step of regression analysis is to build a regression equation using this best independent variable.

The value 0.67 is the regression coefficient of the PB attitude and the intercept is also 0.67 (i.e. $PBPI = 0.67 + 0.67 PBA$). The standard regression coefficient of the PB attitude is 0.83 ($t = 41.81$; $p < 0.01$). Both R square (R^2) and adjusted R square indicates that the percentage of total variation of PB purchase intention explained by PB attitude is 0.68 and the high coefficient values reveal that PB attitude is a very good predictor of PB purchase intention.

Despite the correlation between familiarity with PB and PB purchase intention is 0.69 ($p < 0.01$), familiarity with PB is correlated 0.6 ($p < 0.01$) with PB purchase intention. This means that the use of both independent variables PB attitude and familiarity with PB might not be appropriate because they are as highly correlated with each other as they are with dependent variable. Similar situation can also be found in the correlation between perceived PB quality and PB attitude ($r = 0.64$; $p < 0.01$) and perceived PB risk and PB attitude ($r = -0.33$; $p < 0.01$) and price consciousness and PB attitude ($r = 0.14$; $p < 0.01$) (see Table 8.9). Therefore, in the next section, this research will undertake regression analysis without the variable, PB attitude, and undertake structural equation modelling in 8.3.

These phenomena consist with the findings of previous studies such as Burton et al. (1998) and Jin and Suh (2005). They concluded that consumer characteristics exhibited indirect association with PB purchase intention. In other words, these consumer characteristics increase PB purchase intention via a positive PB attitude (see Chapter 3). Structural equation modelling was used to further understand the causal relationship among consumer factors. This method of analysis has the ability to accommodate multiple interrelated dependence relationships in a single model (Hair et al., 1998), in 8.3 below.

8.2.3.2 Regression Analysis

In the last section, the bivariate correlation analysis showed that individual characteristics could be used in explaining heterogeneous preferences for private brands. Bivariate correlation analysis, however, only showed the correlation between individual characteristics and PB preference. There is no information about how good these individual characteristics are in explaining heterogeneous preferences for private brands. Therefore, this thesis uses logistic regression analysis for pan-brand analysis.

Logistic regression analysis is a statistical method used for prediction of the probability of occurrence of an event by fitting data to a logistic curve. This technique is not restricted to continuous variable and so variables such as education and income level can be included. As mentioned above, four demographic variables are used as the pan-brand analysis in this study. These are age, household size, education and income level and they are all ordinal scales. Therefore, in this section, this research uses logistic regression analysis to test the predict ability of these individual characteristics. Meanings and labelling of each of demographic variables are elaborated below.

- Age: Three dummy variables are created. Age 1 is '1' if aged between 18 and 25, and '0' if otherwise. Age 2 is '1' if aged between 25 and 34, and '0' if otherwise. Age 3 is '1' if aged between 35 and 44, and '0' if otherwise.
- Education: Education level is divided into five groups so four dummy variables are created. Edu 1 is '1' if educated primary school or under, and '0' if otherwise. Edu 2 is '1' if educated senior high school, and '0' if otherwise. Edu 3 is '1' if educated college, and '0' if otherwise. Edu 4 is '1' if educated university, and '0' if otherwise.
- Family size: (Abbreviated as Fam): exact number of available members in the household is used in the regression analysis but over seven members in the household would be marked as 7 to reduce bias from few and large case.
- Income: Income level is divided into four groups. Again three dummy variables are created. Inc 1 is '1' if the income is lower than 20,000 NTD, and '0' if otherwise. Inc 2 is '1' if the income is between 20,000 and 40,000 NTD, and '0' if otherwise. Inc 3 is '1' if the income is between 40,000 and 100,000 NTD, and '0' if otherwise.

As for personal, perceptual and independent variables including consumer innovativeness (CI), price consciousness (PC), perceived PB quality (PQ), perceive PB risk (PR), familiarity with PB (FA), store reputation reliance (SR) and PB purchase intention (PBPI), exact number of available members in the variable is used in the regression analysis.

Having defined the dependent and independent variable, the postulated regression equation can be written as follow:

$$PBPI = b_0 + b_1 * Age_1 + b_2 * Age_2 + b_3 * Age_3 + b_4 * Edu_1 + b_5 * Edu_2 + b_6 * Edu_3 + b_7 * Edu_4 + b_8 * Fam + b_9 * Inc_1 + b_{10} * Inc_2 + b_{11} * Inc_3 + b_{12} * CI + b_{13} * PC + b_{14} * PQ + b_{15} * PR + b_{16} * FA + b_{17} * SR$$

Where b_0 is the intercept and $b_1, b_2 \dots b_{16}, b_{17}$ are regression coefficients for their respective variables. Using SPSS, a logistic regression analysis was run using 'simultaneous enter approach'. The results of the logistic regression analysis can be seen in Table 8.11 below (seeing the model 3) and the final regression equation is summarized as follows:

$$\text{PBPI} = 0.616 + 0.112 \text{ Age1} + 0.068 \text{ Age2} + 0.041 \text{ Age3} + 0.714 \text{ Edu1} - 0.120 \text{ Edu2} + 0.080 \text{ Edu3} + 0.069 \text{ Edu4} + 0.013 \text{ Fam} + 0.119 \text{ Inc1} + 0.132 \text{ Inc2} + 0.125 \text{ Inc3} + 0.007 \text{ CI} + 0.013 \text{ PC} + 0.305 \text{ PQ} - 0.097 \text{ PR} + 0.431 \text{ FA} + 0.030 \text{ SR}$$

The initial result shows that the probability of getting high PB purchase intention is higher if the person in question is at a younger age, falls in the education category of primary school, comes from a household of larger size, learning medium income, innovative, price conscious, quality conscious, familiar with PB and relying on store reputation. On the contrary, the probability is lower if the person belongs to the education category of senior high school and perceived higher risk in PB.

The standardized beta and the result of statistical significance test of all variables can be seen as Table 8.11 below. As Table 8.11 shows, the results from Model 3 (Adjusted $R^2 = 0.54$, F value = 58.13, $p < 0.01$) indicate that after carrying out statistical significance tests, among the seventeen variables staying in the equation, only three brand-related variables are found to be significant at 99 per cent confidence level. At a confidence level of 95 per cent, two other variables, namely the intercept and EDU1, are significant.

Table 8.11 concludes the results of three regression analysis models. Model 1 examined the effects of socio-economic variables, Model 2 examined the effects of personal and perceptual variables, and Model 3 examined the effects of all three constructs (i.e., socio-economic, personal and perceptual).

Table 8.11 Regression analysis on the dependent variable: Private brand purchase intention (n=814)

Independent variables	Model 1 : Independent variables = Socio-economic variables		Model 2 : Independent variables = Personal and Perceptual variables		Model 3 : Independent variables = All variables included	
	S.β	t	S.β	t	S.β	t
	AGE1	-0.04	-0.60			0.04
AGE2	-0.13	-1.93 ⁺			0.03	0.60
AGE3	-0.10	-1.86 ⁺			0.01	0.36
EDU1	0.06	1.71 ⁺			0.05	2.00*
EDU2	-0.02	-0.46			-0.03	-0.97
EDU3	0.08	1.92 ⁺			0.02	0.70
EDU4	0.02	0.57			0.03	0.98
FSZ	0.06	1.77 ⁺			0.02	0.73
INC1	0.15	1.56			0.04	0.65
INC2	0.14	1.34			0.05	0.78
INC3	0.11	1.11			0.05	0.75
CI			0.01	0.32	0.01	0.27
PC			0.02	0.82	0.02	0.60
PQ			0.27	8.98**	0.27	8.93**
PR			-0.09	-3.32**	-0.09	-3.45**
FA			0.52	18.20**	0.51	17.94**
SR			0.02	0.71	0.03	1.14
Adjusted R ²	0.02		0.54		0.54	
F	2.23*		162.56**		58.13**	

NOTE: (1) S.β=Standardized beta; (2) ** p<0.01; *p<0.05; +p<0.1 (3) consumer innovativeness (CI), price consciousness (PC), perceived PB quality (PQ), perceive PB risk (PR), familiarity (FA) and store reputation reliance (SR)

The results of Model 1 (Adjusted $R^2=0.02$, F value =2.23, $p<0.05$) indicate an acceptable predictive power with the data. However, the score of Adjusted R^2 is quite low. In Model 1, therefore, it is obvious that all socio-economic variables are not strong predictors of PB purchase intention since among the eleven variables staying in the equation, only five variables (i.e. AGE2, AGE3, EDU1, EDU3 and FSZ) are found to be significant at 90 per cent confidence level.

The results of Model 2 (Adjusted $R^2=0.54$, F value =162.56, $p<0.01$) show a good predict power with the data. The score of Adjusted R^2 is high and the F value also suggests that the Model 2 is much better than Model 1. In Model 2, it is obvious that perceptual variables are strong predictors of PB purchase intention since three variables (i.e. PQ, PR and FA) are found to be significant at 99 per cent confidence level. On the basis of these results, it was concluded that brand-related perceptual variables are the strongest predict factors in PB purchase intention. Although three variables (i.e. CI, PC and SR) are not found statistically significant in Model 2, they will be further discussed in 8.3 with structural equation model analysis.

Finally, to test the potential collinearity problem, this research runs multicollinearity test and uses the VIF (variance inflation factor) value to determine how much the variance of a coefficient (square of the standard deviation) is increased because of collinearity. VIF is a method of detecting the severity of multicollinearity and the value 10 has been proposed as a cut off value (Kutner et al., 2004). If the VIF is larger than 10, there exists a serious multicollinearity problem among independent variables. The results of multicollinearity test show that all VIF value is less than 10 and the mean of VIF^{16} is 2.817 also less than 10. Both evidences indicate that there is no serious multicollinearity problem among independent variables.

$$^{16} \overline{(VIF)} = \frac{\sum_{k=1}^{17} (VIF)_k}{17}$$

8.2.3.3 Conclusion of Pan-brand Analysis

This research undertakes bivariate correlation and regression analysis to investigate pan-brand analysis. In line with prior literature, the result shows that socio-economic variables have weaker prediction power than perceptual variables. Although the regression results show some correlation between socio-economic variables and PB purchase intention, they can not be treated as good factors in predicting PB purchase intention (see Table 8.10 and 8.11).

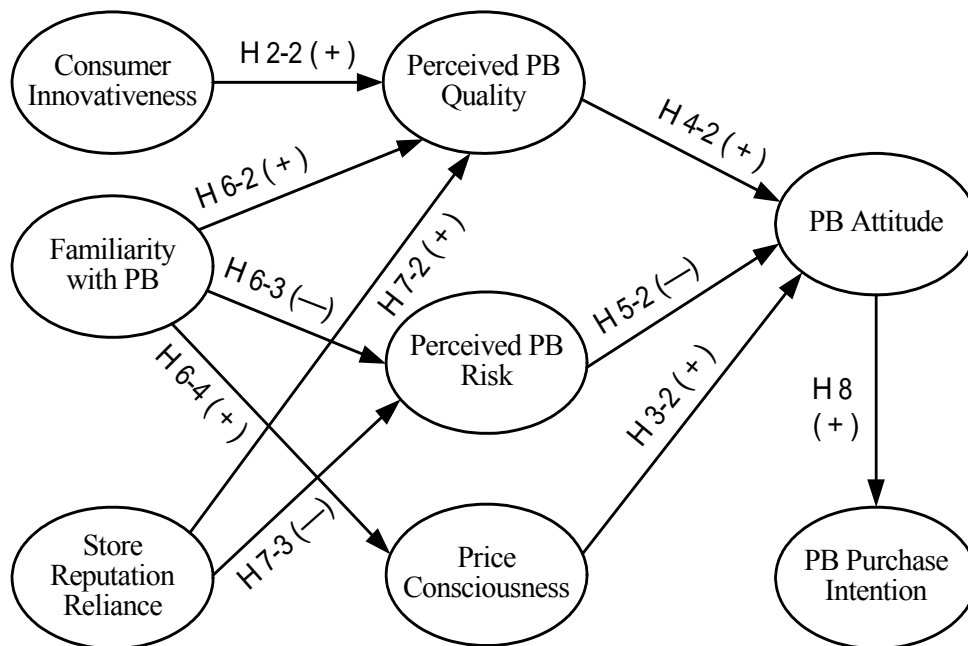
In terms of the personal and perceptual variables, these are good in predicting PB purchase intention since they have higher correlation and beta coefficient with PB purchase intention than other variables in the regression analysis. However, three variables (i.e. CI, PC and SR) are not statistically significant in the regression analysis and need further discussion. One possible reason for this is that these variables are firm specific variables that might perform differently according to the characteristics of a specific retailer's PB. As has been discussed in intra-brand analysis, the findings show that consumers who have higher purchase intention toward 7-11's PB products have different personal and perceptual characteristics to those who prefer to Carrefour's PB.

Another possible reason is that there may have some indirect correlations among these perceptual variables. As mentioned above, the bivariate correlation analysis suggested that there may have some high inter-correlation among perceptual variables such as familiarity with PB and perceived PB quality, and these results provide evidence that there exist indirect correlation among perceptual variables. Besides, in Chapter 5, this research has also found some evidence of the existing indirect relationships among variables. Therefore, this research will undertake structural equation model analysis to figure out the complex correlation among these variables.

8.3 Structural Equation Model

As discussed in the last section, the result of pan-brand analysis shows that there might be some indirect correlation among variables, and this research will test these indirect relationships with an integrative research model. The research hypotheses obtained from the focus group interviews and the extended research framework can be seen in Figure 8.1 below. Figure 8.1 shows the relationships between variables and highlights research hypotheses. Both direct and indirect correlations among variables are included. The discussion of the research framework and hypotheses can be seen in Chapter 5.

Figure 8.1 Research hypotheses and research framework



Note: (+) indicates a hypothesized positive effect and (-) indicates hypothesized negative effect

The purposes of adopting structural equation model are to test whether the research framework obtained from focus group interviewing has a goodness of fit or not (see Chapter 5) and to further understand the causal relationship among perceptual variables, PB attitude and purchase intention.

To obtain these two objectives, this research adopted the maximum likelihood estimation procedure in AMOS (Pedhazur and Schmelkin, 1991),

a statistical software providing powerful and easy-to-use SEM (structural equation modelling), to test whether the research framework that obtained from focus group interviewing has a goodness of fit or not. In this section, this research first runs structural equation model to test proposed model with all samples in 8.3.3. The Carrefour and the 7-11 samples are then tested separately in 8.3.4.

8.3.1 Goodness-of-fit Tests

Goodness-of-fit measures the correspondence of the actual or observed input (covariance or correlation) matrix with that predicted from the proposed model (Hair et al., 1998). The chi-square value is a common index for goodness-of-fit tests and it is very sensitive to sample size. In view of the big sample size (n=814) in this study, it is inappropriate to reject or accept the model based on the chi-square statistic alone (Bagozzi and Yi, 1988). Therefore, this research uses the chi-square test and other four more accurate indexes for testing the overall fit.

Basically, there are three types of goodness-of-fit measures: absolute fit measures, incremental fit measures and parsimonious fit measures. Absolute fit measures assess only the overall model fit, with no adjustment for the degree of ‘over fitting’ that might occur. Incremental fit measures compare the proposed model to another model specified by the researcher and parsimonious fit measures ‘adjust’ the measures of fit to provide a comparison between models with differing numbers of estimated coefficients (Hair et al., 1998).

This research adapts five different indexes¹⁷: the ratio of Chi-Square to degree of freedom (χ^2 / df), a goodness-of-fit (GFI), an adjusted goodness-of-fit (AGFI), a comparative fit index (CFI), and a root mean square of approximation (RMSEA) to judge the acceptable level of fit. GFI and RMSEA are absolute fit measures and AGFI is incremental fit measures

¹⁷ Further explanation and description of these indexes can be found in Blentler, 1988 or Hair et al., 1998.

and CFI is parsimonious fit measures. All these indexes can be used to determine whether the model should or should not be rejected. Table 8.12 below summarizes these indexes and recommend values.

Table 8.12 Model fit indexes and recommend value for SEM

Indexes	Recommend value for good fit	Recommend value for excellent fit	Literature based for
χ^2 / df	< 3	< 2	Hair et al. (1998)
GFI (goodness-of-fit)	> 0.8	> 0.9	Blentler, 1988; Gefen et al., 2003
AGFI (adjusted goodness-of-fit)	> 0.8	> 0.9	Blentler, 1988; Gefen et al., 2003
CFI (comparative fit index)	> 0.9	> 0.95	Blentler, 1988; Jiang et al., 2000
RMSEA (root mean square of approximation)	< 0.08	< 0.05	Browne and Cudeck, 1993; Hair et al., 1998

This research follow the standards to assess the model fit that if the ratio of Chi-Square to degree of freedom (χ^2 / df) were smaller than 3, it refers to a good fit (Hair et al., 1998). Also, if a goodness-of-fit (GFI) and/or an adjusted goodness-of-fit (AGFI) value were greater than 0.80, it refers to a good fit and if the value were greater than 0.90, it refers to an excellent fit (Blentler, 1988; Gefen et al., 2003). Besides, if a comparative fit index (CFI) were greater than 0.90, it refers to a good fit and if the value were greater than 0.95, it refers to an excellent fit (Blentler, 1988; Jiang et al., 2000).

Finally, if a root mean square of approximation (RMSEA) were lower than 0.08, it refers to a good fit and if the value were lower than 0.05, it refers to an excellent fit (Browne and Cudeck, 1993; Hair et al., 1998). All these indexes offer good indexes for research to decide whether the research model has a good fit and results of analysis can be trusted or not.

8.3.2 Model and Hypotheses Testing

AMOS provides both estimated parameter coefficients and standardized estimates and hence coefficients between constructs can be interpreted in the same way as one would interpret standardized regression coefficients in classical ordinary least squares regression. However, it is important to note that since structural equation modelling is a method of confirmatory factor analysis, it gives every item a different factor loading whereas regression uses equal factor loading in each items. Though trivial differences might exist, generally speaking, both methods are widely accepted and have similar results.

Table 8.13 and Figure 8.3 show the results of structural equation modelling (SEM). This research proposes a hypothesized model that includes 10 research hypotheses and a revised model including only significant paths to understand the causal relationship among perceptual variables. Though keeping all paths in the model can reflect the results of original focus group results, withdrawing insignificant paths in the model can purify the research model (Richardson et al., 1996). Previous research has proven that some insignificant paths will decrease the goodness-of-fit of the model and obscure the relatively important paths, so this research design a reversed model after deleting insignificant paths from hypotheses model. In other words, to gain a more accurate understanding of the relationships, the research model was modified by deleting these insignificant paths. The result of the hypothesized model is on the left side of Table 8.13 and revised model on the right side.

In the hypotheses model, nine hypotheses are found to be statistically significant. These hypotheses are Hypothesis 2-2 (Consumer innovativeness → perceived PB quality), Hypothesis 3-2 (Price consciousness → PB attitude), Hypothesis 4-2 (Perceived PB quality → PB attitude), Hypothesis 5-2 (Perceived PB risk → PB attitude), Hypothesis 6-2 (Familiarity with PB → perceived PB quality), Hypothesis 6-3 (Familiarity with PB → perceived risk), Hypothesis 6-4 (Familiarity with PB → price consciousness),

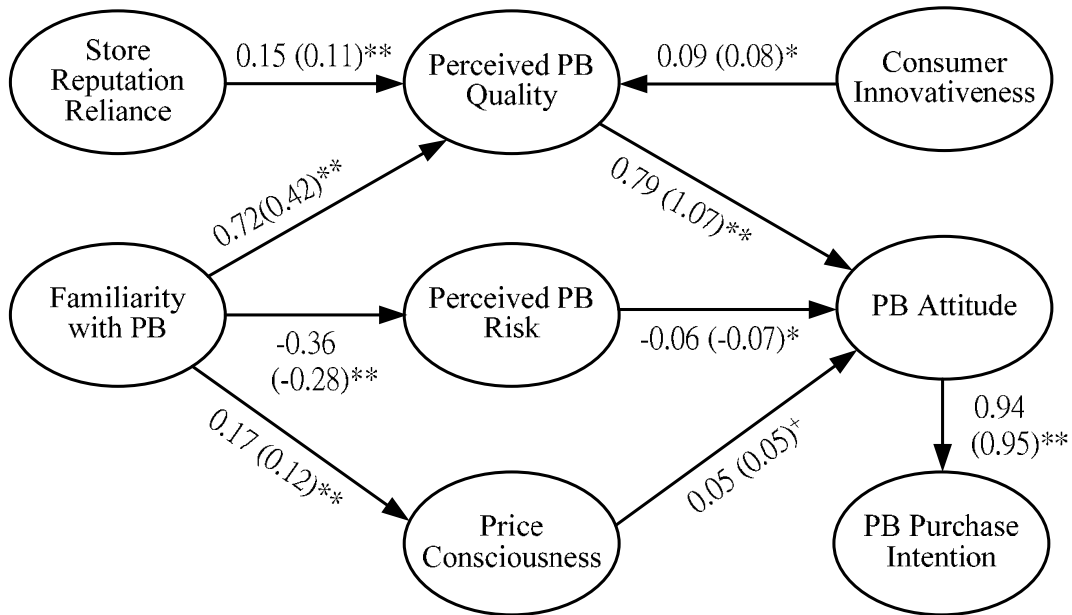
Hypothesis 7-2 (store reputation reliance → perceived PB quality) and Hypothesis 8 (PB attitude → PB purchase intention).

Table 8.13 Parameter estimates for research model

Hypothesis	Path	Hypothesized Model			Revised Model		
		S. $\hat{\beta}$	$\hat{\beta}$	P-value	S. $\hat{\beta}$	$\hat{\beta}$	P-value
H 2-2:	PQ <-- CI	0.09	0.08	0.006	0.09	0.08	0.006
H 3-2:	PBA <-- PC	0.05	0.05	0.085	0.05	0.05	0.085
H 4-2:	PBA <-- PQ	0.79	1.07	0.000	0.79	1.07	0.000
H 5-2:	PBA <-- PR	-0.07	-0.07	0.018	-0.07	-0.07	0.018
H 6-2:	PQ <-- FA	0.72	0.42	0.000	0.72	0.42	0.000
H 6-3:	PR <-- FA	-0.37	-0.28	0.000	-0.36	-0.28	0.000
H 6-4:	PC <-- FA	0.17	0.12	0.000	0.17	0.12	0.000
H 7-2:	PQ <-- SR	0.15	0.11	0.000	0.15	0.11	0.000
H 7-3:	PR <-- SR	0.04	0.03	0.368			
H 8:	PBPI <-- PBA	0.94	0.95	0.000	0.94	0.95	0.000

NOTE: (1) S.β=Standardized beta (2) consumer innovativeness (CI), price consciousness (PC), perceived PB quality (PQ), perceive PB risk (PR), familiarity (FA) and store reputation reliance (SR)

Figure 8.2 Reversed model of PB purchase intention



NOTE: $\chi^2 = 843.087$, $df = 221$, $\chi^2 / df = 3.815$, $GFI = 0.916$, $AGFI = 0.895$, $CFI = 0.947$, $RMSEA = 0.059$; ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$

Figure 8.2 summarizes the significant paths. Specifically, highly innovative consumers perceive the PB has better quality (H2-2: $S. \hat{\beta} = 0.09$, $p < 0.01$) and this result is in line with the focus groups finding. This means that international retailer has the ability and do offer novel PB products to its customers. One possible reason for target retailers (i.e. 7-11 and Carrefour) to offer novel PB produces is partly due to their investment in investing, cooperating and integrating with its supplied manufactories (see Chapter 2). However, research hypothesized that Hypothesis 2-2 will differ by stores. Whether the hypothesis would be supported in both 7-11 and Carrefour sample is still unknown. Therefore, this research will test the Carrefour and the 7-11 samples separately in 8.3.3.

Hypothesis 3-2 that predicted a positive relationship between price consciousness and PB attitude is also supported. Higher price conscious consumers have a more positive attitude toward PB (H3-2: $S. \hat{\beta} = 0.05$,

$p < 0.1$). This implies that generally speaking, consumers who have better attitude toward PB care about the price saving than those who have negative attitude.

However, research also hypothesized that Hypothesis 3-2 will differ by stores. Therefore, whether the hypothesis would be supported in both 7-11 and Carrefour sample will be tested separately in 8.3.3. Despite it is widely accepted that retailers have some or more low cost advantage in offering low price PB, cheap PB can hurt store's reputation because of low-price and low-quality perception. Some experienced retailers such as 7-11 know how to introduce premier and not cheap PB, so it is reasonable to expect no correlation between price consciousness and PB attitude in the 7-11 samples.

Hypothesis 4-2 stating that perceived PB quality most significantly increases the consumer's attitude toward the PB (H4-2: $S. \hat{\beta} = 0.79$, $p < 0.01$) is supported. Therefore, the quality of a specific retailer's PB is the most critical factor that determines consumer's attitude toward a specific retailer's PB. This means when consumers perceive that a retailer's PB products have good quality, they will have more positive attitude toward the retailer's PB.

Hypothesis 7-2 specifying that store reputation reliance would increase perceived PB quality is statistical significant ($S. \hat{\beta} = 0.14$, $p < 0.01$ for Carrefour and $S. \hat{\beta} = 0.19$, $p < 0.01$ for 7-11). This means the Taiwanese customers evaluate PB with higher quality when those retailers have favourable reputations.

In terms of perceive PB risk, Hypothesis 5-2 stating that the greater the perceived PB risk is, the less positive attitude toward the PB, is supported (H5-2: $S. \hat{\beta} = -0.07$, $p < 0.05$). This implies that when consumers perceive higher risk of PB products, they will have more negative attitude toward PB. On the contrary, if the retailer can reduce consumers' perceived risk of PB

products, consumers will have better attitude toward their PB and buy more PB products. This research also hypothesized that H5-2 will differ by stores and further tests will be processed in the next section.

In this research, familiarity with PB is the most critic factor deciding the perceived quality of a specific retailer's PB. As discussed in Chapter 5, brand familiarity enhances consumers' confidence in their ability to absorb more information in judging the criteria needed to evaluate product quality, perceive risk and price perception of PB at the same time.

Figure 8.2 support these hypotheses that as consumers become more familiar with a specific retailer's PB, they perceive it to be of better quality (H6-2: $S. \hat{\beta} = 0.72, p < 0.01$). Also, as consumers become more familiar with a specific retailer's PB, their alertness toward the PB will be lower and so is perceived PB risk (H6-3: $S. \hat{\beta} = -0.36, p < 0.01$). Lastly, the results of SEM show that higher familiarity with PB results in higher price consciousness (H6-4: $S. \hat{\beta} = 0.17, p < 0.01$).

Finally, the structural equation solution finds that consumers' attitude toward a specific retailer's PB is the strongest predictor of PB purchase intention (H8: $S. \hat{\beta} = 0.94, p < 0.01$). Thus, consumers with more positive attitude toward a specific retailer's PB exhibit a higher propensity to buy these products.

Despite most research hypotheses are supported, one hypothesis, Hypothesis 7-3 (store reputation reliance \rightarrow perceived PB risk) is withdrawn from the hypothesized model because of insignificant Beta coefficient (see Table 8.12). One possible reason for this insignificance might be the effect of store reputation only exists in 7-11. Further analysis will be undertaken in the next section.

After withdrawing Hypothesis 7-3, the revised model shows that all

hypotheses are found to be statistically significant at 90 per cent confidence level or better (see Figure 8.3). Though $\chi^2 / df=3.815$ is little higher than the desired value 3, the other four indexes of goodness-of-fit show either good or excellent results (GFI=0.916, AGFI=0.895, CFI=0.947, RMSEA=0.059).

In short, Figure 8.3 showed that most research hypotheses are supported except for Hypothesis 7-3. This research will further test the Carrefour and the 7-11 samples separately in 8.3.3 since the results of focus group interviewing showed that three hypotheses (i.e. H2-2, H3-2 and H5-2) might differ by stores. For example the focus group results indicated that most consumers in the Carrefour groups agreed that private brands offer price savings, but in 7-11 groups, most consumers did not agree with that the price of 7-11's PB is lower or much lower than leading national brands. Some 7-11 consumers even argue that the price of PB sold in 7-11 is not cheaper or even higher than other manufacturers' brand. Therefore, it is necessary to test the samples of Carrefour and 7-11 separately.

8.3.3 SEM of Carrefour and 7-11

The result of bivariate correlation analysis and focus group interviewing shows that consumers perceive Carrefour and 7-11's PB differently. Therefore, this research further tests research hypotheses with the Carrefour and 7-11 samples separately. Table 8.14 summarizes the results of SEM analysis of the Carrefour and 7-11 samples whilst Figure 8.3 and 8.4 summarize the parameter estimates for Carrefour and 7-11. Consumer innovativeness, familiarity with PB, and store reputation reliance are three indirect paths to PB attitude. They are antecedent factors affecting other perceptual variables (i.e. perceived PB quality, perceived PB risk and price consciousness).

In the hypotheses model, two hypotheses are found to be statistically significant in the Carrefour samples. Specifically, these hypotheses are Hypothesis 2-2 (consumer innovativeness → perceived PB quality) and

Hypothesis 7-3 (store reputation reliance → perceived PB quality). Three hypotheses are not found statistically significant for the 7-11 group including Hypothesis 3-2 (price consciousness → PB attitude), Hypothesis 5-2 (perceived risk → PB attitude) and Hypothesis 7-3 (store reputation reliance → perceived PB quality). After deleting these insignificant paths from hypotheses model, a reversed model can be seen in the right side of Table 8.14.

Table 8.14 shows that six structural coefficients (i.e. H4-2, H6-2, H6-3, H6-4, H7-2 and H8) are statistically significant at the 0.05 level or better in both Carrefour and 7-11's samples. Among these variables, it is obvious that quality consciousness exerts greatest influence on PB attitude ($S.\hat{\beta} = 0.71$, $p < 0.01$ for Carrefour and $S.\hat{\beta} = 0.81$, $p < 0.01$ for 7-11). This implies that perceived quality plays an important part in determining consumers' perception toward a retailer's PB. In terms of what factor effect consumers' perception of quality, familiarity with PB has greatest influence on perceived PB quality ($S.\hat{\beta} = 0.66$, $p < 0.01$ for Carrefour and $S.\hat{\beta} = 0.72$, $p < 0.01$ for 7-11) in both the Carrefour and 7-11 samples. This refers to consumers' familiarity with a specific brand enhances their confidence in judging the criteria needed to evaluate product quality of PB.

All three hypotheses comparing two retailer's PB (i.e. H2-3, H3-3 and H5-3) were supported. Figure 8.3 and 8.4 summarizes the significant paths by Carrefour and 7-11's samples. Specifically, H2-3, stating that the relationship between consumer innovativeness and perceived PB quality differs by stores, was supported. Consumer innovativeness positively influences perceived PB quality in the 7-11 samples ($S.\hat{\beta} = 0.15$, $p < 0.01$), but not in the Carrefour samples.

H3-3, specifying that the relationship between price consciousness and PB attitude varies by stores, was supported. While price consciousness positively and significantly affects PB attitude in the Carrefour samples

(S. $\hat{\beta}$ = 0.13, $p < 0.01$). The effect of price consciousness on PB attitude is negatively insignificant in the 7-11 samples. This finding support the focus groups conclusion that most Taiwanese consumers do not treat 7-11's PB as a low price brand.

H5-3, hypothesizing that the relationship between perceived PB risk and PB attitude differs by stores, was supported. In the Carrefour samples, perceived PB risk variation negatively impacts on PB attitude (S. $\hat{\beta}$ = -0.14, $p < 0.01$). However, it has no influences on consumers' attitude on 7-11's PB.

Table 8.14 Parameter estimates for Carrefour and 7-11

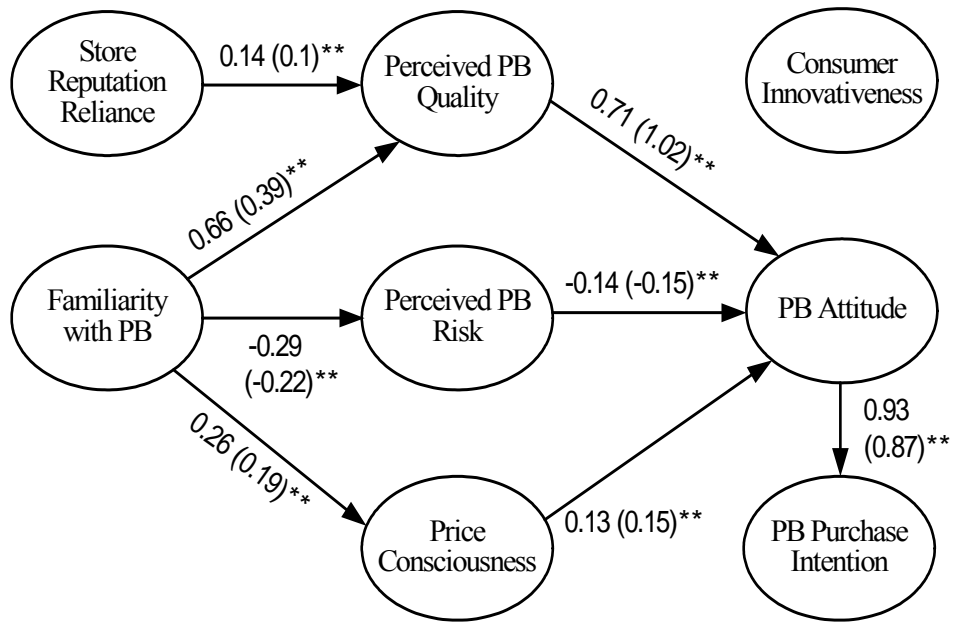
Hypothesis	Path	Hypothesized Model				Revised Model					
		Carrefour		7-11		Carrefour			7-11		
		$\hat{S}.\hat{\beta}$	$\hat{\beta}$	$\hat{S}.\hat{\beta}$	$\hat{\beta}$	$\hat{S}.\hat{\beta}$	$\hat{\beta}$	P-value	$\hat{S}.\hat{\beta}$	$\hat{\beta}$	P-value
H 2-2:	PQ <-- CI	0.03	0.02	0.15	0.13**				0.15	0.13	0.00**
H 3-2:	PBA <-- PC	0.13	0.15**	-0.04	-0.04	0.13	0.15	0.00**			
H 4-2:	PBA <-- PQ	0.71	1.02**	0.83	0.99**	0.71	1.02	0.00**	0.81	0.98	0.00**
H 5-2:	PBA <-- PR	-0.14	-0.15**	0.06	0.06	-0.14	-0.15	0.00**			
H 6-2:	PQ <-- FA	0.66	0.39**	0.73	0.56**	0.66	0.39	0.00**	0.72	0.56	0.00**
H 6-3:	PR <-- FA	-0.30	-0.23**	-0.31	-0.27**	-0.29	-0.22	0.00**	-0.3	-0.27	0.00**
H 6-4:	PC <-- FA	0.26	0.19**	0.12	0.11*	0.26	0.19	0.00**	0.12	0.11	0.04*
H 7-2:	PQ <-- SR	0.13	0.09**	0.19	0.16**	0.14	0.10	0.00**	0.19	0.16	0.00**
H 7-3:	PR <-- SR	0.06	0.05	0.01	0.01						
H 8:	PBPI <-- PBA	0.93	0.87**	0.94	0.88**	0.93	0.87	0.00**	0.94	0.88	0.00**

Notes: (1) $\hat{\beta}$: Estimated Parameter Coefficients; $\hat{S}.\hat{\beta}$: Standardized Estimated Parameter Coefficients

(2) * P < 0.05, ** P < 0.01, +p < 0.1 NOTE:

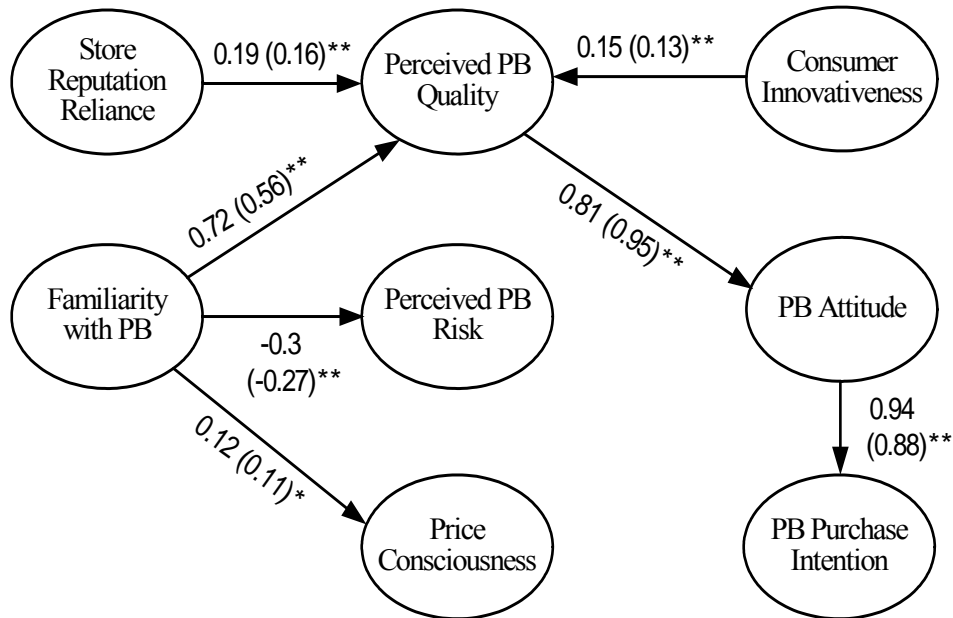
(3) Consumer innovativeness (CI), price consciousness (PC), perceived PB quality (PQ), perceive PB risk (PR), familiarity (FA) and store reputation reliance (SR)

Figure 8.3 Comparison of the proposed model in Carrefour



Note: $\chi^2=450.314$, $df=162$, $\chi^2 / df=2.780$, $GFI=0.900$, $AGFI=0.870$, $CFI=0.945$, $RMSEA=0.066$

Figure 8.4 Comparison of the proposed model in 7-11



- Notes: (1) Only significant paths were included.
 (2) The number in parentheses denotes estimated parameter coefficients
 (3) $\chi^2=533.21$, $df=223$, $\chi^2 / df=2.391$, $GFI=0.898$, $AGFI=0.874$, $CFI=0.944$, $RMSEA=0.059$
 (4) * $P < 0.05$, ** $P < 0.01$

In conclusion, Taiwanese consumers treat Carrefour and 7-11's PB as two different brands. For 7-11's PB, what consumers appreciate is the high quality. High quality perception of 7-11's PB gives consumers a more positive attitude toward its PB and enhances their purchase intention toward the PB. In term of perceived quality of PB, the research results shows that good store reputation, novel product and consumers' higher degree of familiarity with PB are antecedent factors that have an influence on their positive perception of PB quality.

In terms of Carrefour's PB, what consumers concern are not only the high quality but also potential risk and lower price. Lower price and better quality perception of Carrefour's PB gives consumers a more positive attitude toward its PB while potential risk deter their positive attitude toward Carrefour's PB. Carrefour's consumers' familiarity with its PB determines their perception of the PB. When consumers feel more familiar with the PB, they have more confidence in their ability to absorb more information in judging the criteria needed to evaluate product quality, perceive risk and price perception of PB at the same time. Therefore, familiarity with PB has a positive influence on their perception of PB quality and saving money and reduces their perceived risk toward the PB.

8.4 Summary

Table 8.15 summarizes all research hypotheses and test results. This chapter has reported on intra-brand, inter-brand, pan-brand and confirmatory factory analysis to test the research hypotheses proposed in Chapter 3 and 5. Some statistic methods have been used such as bivariate correlation analysis, logistic regression analysis, cluster analysis, ANOVA and structural equation modelling analysis. The results suggested that most of the hypotheses are accepted with statistical support.

Table 8.15 Summaries of hypotheses and results

Hypotheses	Relationship	Result
Socio-economic Variables		
H 1-1	No correlation between AGE and PBPI	Accepted
H 1-2	EDU and PBPI (-)	Accepted
H 1-3	FAZ and PBPI (+)	Accepted
H 1-4	INC and PBPI (-)	Accepted
Personal Variables		
H 2-1	CI and PBPI (+)	Accepted
H 2-2	PQ ← CI (+)	Accepted
H 2-3	H2-2 will differ by stores.	Accepted
Perceptual Variables		
H 3-1	PC and PBPI (+)	Accepted
H 3-2	PBA ← PC (+)	Accepted
H 3-3	H3-2 will differ by stores.	Accepted
H 4-1	PQ and PBPI (+)	Accepted
H 4-2	PBA ← PQ (+)	Accepted
H 5-1	PR and PBPI (-)	Accepted
H 5-2	PBA ← PR (-)	Accepted
H 5-3	H5-2 will differ by stores.	Accepted
H 6-1	FA and PBPI (+)	Accepted
H 6-2	PQ ← FA (+)	Accepted
H 6-3	PR ← FA (-)	Accepted
H 6-4	PC ← FA (+)	Accepted
H 7-1	SR and PBPI (+)	Accepted
H 7-2	PQ ← SR (+)	Accepted
H 7-3	PR ← SR (-)	Rejected

Note: **PBPI**: private brand purchase intention; **PBA**: private brand attitude; **EDU**: education level; **FAZ**: family size; **INC**: income level; **CI**: consumer innovativeness; **PC**: price consciousness; **PQ**: perceived PB quality; **PR**: perceived risk; **FA**: familiarity with PB; **SR**: store reputation reliance.

The intra-brand analysis results show that some individual characteristics can explain heterogeneous preferences for private brands. These individual characteristics include demographic variables, i.e. education level, family size and income level and psychological variables, i.e. consumer innovativeness, price consciousness, familiarity with PB, perceived PB quality, perceived PB risk and store reputation reliance.

The inter-brand analysis results suggest that price consciousness has the strongest discriminant power in separating 7-11's PB buyers from Carrefour's PB buyers. Though demographic variables are not good predictors in separating the 7-11's and Carrefour's PB buyers, there are still some differences in PB attitude and PB purchase intention across demographic variables in both the Carrefour and 7-11 samples. These differences are that older (over 45) and less educated (junior or primary degree) consumers like to buy Carrefour brand while those with lower incomes and living as part of a large (6 or 5) family prefer to buy 7-11 PB. The inter-brand analysis results also suggest that PB buyers are more innovative and reliance on good store reputation consumers than non-PB buyers. In the meanwhile, consumers earning lower income and living in larger household are more like to be PB buyers. These findings are in line with the expectations.

The pan-brand analysis further testes the predict ability of these individual characteristics. In general, socio-economic variables have weaker prediction power than perceptual variables. Among all variables, perceived PB quality has the strongest predicting power in the high PB purchase intention. This finding consists with most previous results. Besides, the results of the pan-bran analysis also suggest that there might have some indirect correlations among variables because of high inter-correlation.

Finally, the SEM results show that the research model generated from the conclusion of focus group interviewing has a good fit. All indexes were satisfied with the requirement. Consisting with research expectation, store

reputation reliance, familiarity with PB and consumer innovativeness are three antecedent factors that have influence on the consumers' perceptions of PB quality. Perceived PB quality is the most important variable that has positive indirect influences on PB purchase intention through their effect on the PB attitude. More specifically, perceived PB quality and price consciousness are the two critical variables that have positive indirect influences while perceive risk of PB has negative indirect influences on PB purchase intention through their effect on the PB attitude.

Interestingly, the SEM results further show that there exist different patterns in the 7-11 and Carrefour samples. Price consciousness and perceived PB risk affect consumers' attitude toward Carrefour's PB but these influences can not be found in the 7-11 samples. The SEM results also show that consumer innovativeness affect perception of 7-11' PB quality but this influence can not be found in the Carrefour samples. Further discussion, conclusion and implication of research findings will be hold in the last chapter.

Chapter 9 Discussion, Implication and Conclusion

9.1 Chapter Overview

This research attempted to identify the correlation between specific consumer characteristics and interpersonal differences in PB purchase intention and to propose an integrated research framework to have a better understanding of consumers' PB attitude and purchase intention toward two international retailers (i.e. Carrefour and 7-11) in an international market (i.e. Taiwan). Based on the data collected through on-line questionnaires and paper-based surveys, 22 hypotheses were tested and the results were reported in Chapter 8. In this chapter, all these research results will be concluded and discussed.

Section 9.2 of this concluding chapter will discuss the research findings. In general, most research results are in line with previous studies. Section 9.3 will show some managerial implications. Next, though this research tries to fulfil all research requirements, unavoidably, some research limitations still exist and these research limitations point to future research eventually. These suggestions will be provided in Section 9.4. Finally, a conclusion will be drawn in Section 9.5.

9.2 Discussion

In Europe and North America, private brands have developed a high market share in the past few years; however, in Asian countries the market share of PB is still low. According to data from AC Nielsen report about PB market share in 2005, consumers in Great Britain (with a PB share of 28%), were found to have PB products in their basket on 82% of their shopping trips and in the US (with a PB share of 16%) were found to have PB products in their basket on 45% (AC Nielsen, 2005). On the contrary, in Taiwan, the PB market share in grocery was around 5% in 2005 but this increased to about 10% in 2008 (Liu and Wang, 2008).

ACNielsen North Asia managing director S.K. Fung said that Asia had the lowest share because private label brands had a shorter history in the region compared with their counterparts in the West (see Hille, 2003). In fact, because of a short development history of PB, the international retailers are unfamiliar with Taiwanese consumers with the result that they can not develop a more accurate response to their expectations. Also, Taiwanese consumers are less willing to buy their PB products because of a lack of familiarity with these international retailers and their own brand.

To better understand the Taiwanese consumers' PB purchase behaviours, this research first tested the correlation between consumer characteristics variables and PB purchase intention and then evaluated a model of consumer PB purchase intention. This research, therefore, separates discussion into two parts. The first part of the discussion concerns the findings of correlation between consumer characteristics variables and PB purchase intention. The second part of the discussion looks at the finding of the research model.

9.2.1 Discussion on Consumer Characteristics

Previous research has shown correlations between PB purchase intention and a number of other socio-economic, perceptual, and personal variables. However, most research results were quite old and may not be able to describe the current retail brand market (Richardson et al., 1996). Perhaps more importantly, most existing studies are based on North American or European data, which may reflect different economic background and different stage of PB development in the long history development of Europe and North America. This research has attempted to test these disparate findings with the data collected from consumers of two retailers (i.e. Carrefour and 7-11) in a country with a short PB development history (i.e. Taiwan) to better understand the correlations between the variables and consumers' PB purchase intention.

An examination of the relative importance of the variables influencing PB purchase intention reveals that perceptual variables have higher influence on PB purchase intention than socio-economic and personal variables in general. The results of regression analysis show significant but low correlations between socio-economic variables and PB purchase intention. In terms of psychological (i.e. perceptual) variables, they performed better in predicting PB purchase intention than demographic variables since they have a higher correlation and beta coefficient with PB purchase intention. This finding is in line with most previous studies finding that the direct effect of demographic variables on the PB purchase intention is weak. For example, previous studies such as Frank and Boyd (1965), Burger and Schott (1972), Omar (1996) and Liu and Wang (2008) all concluded that socio-economic variables have trivial correlations with consumers' PB purchase behaviours.

Although the previous results has showed that the socio-economic variables are weakly correlated with Taiwanese consumers' PB purchase intention, the research findings still verify some previous socio-economic studies of PB and offer more information to support the hypotheses. For example, consistent with recent studies (e.g. Baltas 2003; Baltas and Argouslidis 2007; Liu and Wang, 2008), this research finds no correlation between age and PB purchase intention. Also consistent with socio-economic studies of PB (Frank and Boyd, 1965; Hoch, 1996; Richardson et al., 1996; Ailawadi et al., 2001), this research finds positive correlation between family size and PB purchase intention whilst negative correlation between income level and PB purchase intention.

However, one finding does not endorse the conclusion of most early studies that asserted better educated consumers are likely to buy PB products (e.g. Frank and Boyd, 1965; Cunningham et al., 1982; Hoch, 1996; Ailawadi et al., 2001; Baltas and Argouslidis, 2007). This research finds a negative correlation between education level and consumers' PB purchase intention and this finding is in line with some previous studies such as Rothe and Lamont (1973) and Omar (1996). This means less educated Taiwanese

consumers have higher willingness to buy PB products. One possible reason is that better educated consumers might have more ability to collect information offered by local manufacturers and/or advertisers. Compared to those local manufacturers, international retailers have limited time to educate their customers and might fail to provide enough information to communicate and to build trust with well educated customers. This reason might result in the consumers' low willingness to buy PB products. This merits attention for further study.

In terms of the personal and perceptual variables, this research finds that familiarity with a specific retailer's PB has a high positive correlation and influence on Taiwanese consumers' PB purchase intention. This finding is consistent with some previous studies (e.g. Bellizi et al., 1981; Dick et al., 1995 and Richardson et al., 1996). The results suggest that when consumers are more familiar with PB, they have more confidence in the quality of the brand and higher willingness to choose the brand. For international retailers, the issue of how to enhance consumers' familiarity with their PB is important in markets with a short PB development history.

This research also finds that the perceived PB quality is the critical factor correlating and influencing the PB prone consumers' attitude toward it and this finding is in line with most perceptual studies of private brands (e.g. Richardson et al., 1994; Dick et al., 1995; Veloutsou et al., 2004; Baltas and Argouslidis, 2007). Corstjens and Lal (2000) also supported this argument and claimed that only high quality PB can bring retailers store loyalty and more profits. More importantly, this research finds that the quality of PB is much more important than low price in determining PB purchase in Taiwan. This result supports the finding of Hoch and Banerji (1993) that the quality of PB is much more important than low price in determining the PB market share.

The research results suggest that perceived risk of PB is another critical factor in determining PB purchase. This finding is in line with most previous research such as Richardson et al. (1996), Batra and Sinha (2000)

and Mieres et al. (2006) that perceived risk has a negative effect on private brands proneness. Though some academic research findings assert that the quality of PB is very close to the brand leader (e.g. Laaksonen and Reynolds, 1994; Burt, 2000), Taiwanese consumers are still concerned about the potential risk of PB.

The research results also suggest that store reputation reliance correlates to PB purchase intention. Though the influence of store image is less discussed in previous studies, some research such as Semeijn et al. (2004) and Liu and Wang (2008) argued that good reputation could be considered an important predictor of attitude towards a private brand. This research further confirms the positive correlation between consumers' positive image of the store and their PB purchase intention.

Besides, historical studies have paid much attention to the competition between national brands and private brands (e.g. Raju et al., 1995; Ailawadi et al., 2001; Mieres et al., 2006) but few studies focus on the competition between different retailers' private brands and/or the competition between private brands and non-private brands. This research recognises the gap and the results of the inter-brand analysis show that retailers have different abilities to launch PB lines with advantage in price saving, innovation or premium quality.

Specifically, McGoldrick and Marks (1987), in early research of PB in the UK, found that while Tesco and Sainsbury shoppers demonstrated a similar overall level of price awareness, the degree of price awareness was different. They found that price is the most important factor in the purchasing of the Tesco brand but is of much lower importance for the Sainsbury brand.

The research reported in this thesis offers more evidence to support McGoldrick and Marks's argument that price can be a more important factor in the purchase of one retailer's PB than the others. Furthermore, this research proved that price consciousness is the best and most significant variable in separating Carrefour's PB buyers from 7-11's PB buyers in

Taiwan. Particularly, Carrefour's PB buyers are significantly more price conscious than 7-11's PB buyers. This means that 7-11 offers more premium PB products than Carrefour. However, except for price consciousness, there were no statistically significant differences in socio-economic, personal and perceptual variables separating Carrefour's PB buyers and 7-11's PB buyers.

As for the inter-brand analysis of PB and non-PB buyers, the finding is inconsistent with the early research Frank and Boyd (1965) who concluded that both PB and manufacturer brands are consumed by the same socio-economic consumers. This research finds that store reputation reliance, consumer innovativeness, family size and income level are good in separating PB buyers from non-PB buyers. Specifically, PB buyers are more reliant on store reputation, innovative, living with more family members and earning less income than non-PB buyers. Though non-PB buyers might be either manufacturer brand or generic buyers, generally speaking, PB buyers are different from buyers who do not buy or dislike buying PB.

9.2.2 Discussion on Consumer Behaviour Model

Previous research has identified a number of variables correlated with PB purchase intention. However, an attempt to integrate these variables into a solid model for understanding Taiwanese consumers' PB purchase behaviour is still lacking. To fill the gap, this research has shown that Taiwanese consumers' PB purchase intention is mainly affected by their attitude toward a specific retailer's PB, and their PB attitude is influenced by several perceptual and personal variables such as consumer innovativeness, price consciousness and perceived quality of PB. This conceptual framework is based on the reasoned action model proposed by Ajzen and Fishbein (1980). The results of the research reported in this thesis support the usage of the Ajzen and Fishbein's framework to understand the behaviour of consumers who have a willingness to buy PB.

An examination of the significant relationship and relative importance of the

factors influencing PB attitude and purchase intention reveals that though perceptual variables such as consumer innovativeness and store reputation reliance have correlations with PB purchase intention, these correlations are not effective enough for predicting PB purchase intention directly. Specifically, though it has been confirmed that PB purchase intention is correlated with store reputation and consumer innovativeness, this research does not find evidence to prove that store reputation reliance and consumer innovativeness have directly significant influence on PB purchase intention.

However, this research does find some interestingly indirect effects of consumer innovativeness and store reputation reliance. Specifically, they have a significant association with perceived PB quality. Therefore, both variables are useful in explaining the reasons for purchasing PB and targeting specific consumers. The results of research model show that the consumer's perception of good reputation increases their perception of the quality of PB. This finding indirectly supports a positive relationship between store reputation and attitudes towards PB products (Semeijn et al. 2004) and that good store image is the strong predictor of private label attitude (Liu and Wang 2008).

In terms of consumer innovativeness, the research results verify the finding of Chang and Dawson (2007) that innovativeness plays a critical rule in explaining the success of convenience store in Taiwan. They pointed out that 7-11 in Taiwan successfully increased their sales by innovation, from managerial know-how and technology, generating improvements in productivity. This research precisely indicated that the novel PB products can enhance consumer's perception of PB quality and then increase their attitude toward the PB. Furthermore, this correlation is particularly significant in the 7-11 samples.

The findings of the research model also verify the finding of Richardson et al. (1996) that the familiarity with retailer's private label brands is critical. The result of this research further suggests that whether consumers are familiar with its PB affects purchase perceptions of the PB. Specifically,

when consumers feel more familiar with these international retailers' PB, they have more confidence in evaluating product quality, reducing perceived risk and enhancing price consciousness of PB at the same time. This finding also is consistent with the finding in other countries that have a short PB development history. For example, Miranda and Joshi (2003) found that Australian consumers' non familiarity with a range of private label products is what contributed to the inaccuracy of price recall and result in that they do not consider prices of these labels to be significantly cheaper than manufacturer brands.

The results of the research model also suggest that consumers' familiarity with a specific retailers' PB can help to reduce their perceived risk toward the PB. This finding indirectly verifies McGoldrick and Marks' (1987) conclusion that consumers prefer the guarantee offered by a familiar store name on a product than the uncertainty and the risk of an unfamiliar minor national brand. In sum, when consumers are familiar with PB products, they are likely to view them as better quality, lower risk and more price-saving products.

Finally, according to Liu and Wang (2008), future work can try to examine whether PB attitude and their antecedents differ on store lines because the private brands have developed differently in different stores. In response to their suggestion, this research tested the research model in the 7-11 and Carrefour samples separately.

As expected, the significance and relative contribution of the factors differed by stores. For 7-11's PB, what consumers appreciate is the high quality. High quality perception of 7-11's PB gives consumers a more positive attitude to its PB and enhances their purchase intention toward the PB. However, in terms of Carrefour's PB, what consumers concern are not only the high quality but also potential risk and lower price. This interesting result suggests that 7-11 consumers can be seen as more confident about purchasing PB whilst Carrefour consumers are still not totally convinced about quality and have some suspicion on purchasing PB.

9.3 Managerial Implications

There are substantial managerial implications from the research findings. Firstly, as the findings reveal that the quality of PB is much more important than low price in determining PB purchase in Taiwan. This research therefore puts forward that PB managers can no longer assume that the development of PB in Taiwan is still in the early stage and therefore assuming Taiwanese PB consumers are all price conscious.

In Taiwan, price conscious consumers might get used to buy cheap generic food in the traditional market than to buy PB products in the store. As mentioned in Chapter 2, in most Asian countries that have a short history of PB, generic products sold in the traditional markets still play an important part for cheap fresh vegetables and meals. In Taiwan, traditional supermarkets had, in total, an 18% of market share (about 2,660 US million dollars per year). Therefore, instead of only offering lowest price PB products, international retailers should focus on how to offer better quality, design and/or premium PB products to Taiwanese consumers.

However, this research does not argue that offering low price PB products is not important in Taiwanese grocery retailing, but tries to highlight the importance of other elemental factors (i.e. quality, familiarity, store image and innovation) of PB instead. In fact, most consumers still mentioned one of the key reasons for them to buy PB products is price saving, in the focus group interviews.

As a result, this research suggests that retailers have to start to invest in product research, design and development and in the supply chain management to achieve a competitive difference with their PB. On the one hand, product design and development result in a better quality perception of PB and on the other hand, supply chain management results in lower costs. To achieve these two objects, international retailers must make an effort to build close long-term relationships with local manufacturers and

suppliers.

Secondly, the results of this research suggested that as consumers become more familiar with the PB, their positive evaluation toward the PB quality will increase. Specifically, when consumers feel more familiar with these international retailers' PB, they have more confidence in evaluating product quality, reducing perceived risk and enhancing price consciousness of PB at the same time. In this regard, international retailers should increase various promotional activities, such as offering free in store taste tests, comparisons with national brands, or issuing PB coupons to buyers of competing national brands at the checkout counter (Richardson et al., 1996). By providing consumers the opportunity to try a PB product, it can not only increase consumers' familiarity but also deliver invisible knowledge about the real quality with their PB products (Spratt and Shimp, 2004).

Results of focus group discussions suggested that some consumers felt more familiar with PB when the original manufacturer is well known. Therefore, selecting reputed manufacturer to produce PB is important and more importantly, retailers should deliver this valuable information that their PB products are offered by renowned producers to their customers. When consumers feel more familiar with a specific retailer's PB, they might tend to like purchasing PB. In fact, most international retailers cooperated with local manufacturers to produce their private brands when they get into the foreign markets. For example, the President Corporation, the largest food manufacturer with good reputation in Taiwan, produces some Carrefour and 7-11's PB products.

Thirdly, with regards to socio-economic factors, PB managers should notice that though the effects of these demographic variables are relatively weak, the research results still found some small associations between PB purchase intention and socio-economic variables. Based on these associations, PB managers should pay attention to these specific groups of consumers. For example, the research results indicated that consumers from large families have higher purchase intention toward PB products, so it is

appropriate for retailers to provide large-packs or family size pre-packed food for those customers. Similarly, since the research results also indicated that lower income consumers have more positive attitude toward PB and higher purchase intention toward PB products, retailers should keep offering lower-priced and simple packaging PB products to attract those lower-income consumers.

Finally, this research concludes that consumers' perception of good store reputation correlates to their better PB attitude and enhances their purchase intention of the PB. This finding implies that retailers should cultivate a well store image to lift the sales of PB products. The effect of investing in store reputation is not specific to some products but to the entire PB. Since most retailers have noticed the importance of PB and they sometimes offer thousands of PB products in a store, the positive effect from good store reputation can enhance the attractiveness of all private brand products. In the future, therefore, retailers can focus on aspects, such as improving store environment, merchandise quality and value, and customer service (Semeijn et al., 2004; Richardson et al., 1996; Liu and Wang, 2008). In addition, in the focus group discussions, one consumer treated Carrefour as '*a good neighbour*' and this finding implies that if retailers can join and help the community activities and help the community to grow with them, it would be very helpful to build a good store reputation.

9.4 Research Limitations and Suggestions for Future Research

This research provides interesting insights into the correlation between individual characteristics and the heterogeneous preferences for different firm's PB. However, the natural complexity of consumers' decision process makes it very difficult to construct a theory that can adequately explain or predict consumers' choices of PB in general and considerably more work needs to be done on private brands issues.

First of all, this research can not measure how serious the effects from the economic and cultural factor are. As mentioned in Chapter 4, this research

collected the data between December 2007 and March 2008 while the global economic recession began in December 2007. Some studies have found that a country's private label market share has close correlation with the economic situation. For example, Lamey et al (2007) proved that when the economy is suffering, a country's private label share will increase and when the economy is flourishing, it will shrink. In other words, a country's economic situation might systematically increase or decrease consumers' intention to buy PB products. Future research can further test the correlation between economic cycle and consumers' willingness to buy PB products. For example, future studies can collect data in other economic stages such as growth or peak and compares the results with this study.

The cultural factor is another uncontrollable factor in this research. Some previous studies have proven that cultural differences correlate with consumers' PB purchase behaviours. For example, DeMooij and Hofstede (2002) posited that collectivism cultures are less likely to exhibit preference toward PB than individualism cultures, since collectivism cultures tend to rely on extrinsic cues such as well-known brands. According to Hofstede's culture constructs, the UK and US share a close cultural background that American and British societies are both labelled lower uncertainty avoidance and higher individualism (see the Table 9.1 below). On the contrary, Taiwan represents a very different cultural background from them. It is obvious that Taiwanese society is labelled high uncertainty avoidance and collectivism.

Therefore, future research should focus on the effect of these culture factors such as uncertainty avoidance and collectivism. In addition, since most previous studies were undertaken either in the UK or US, a comparison between high cultural different countries (e.g. a comparison between Taiwanese and British consumers) in terms of perceptual variables would provide significant contribution.

Table 9.1 Part of Hofstede's culture constructs

Country	Uncertainty Avoidance		Individualism	
	Index	Rank (50)	Index	Rank (50)
US	46	11	91	50
UK	35	6-7	89	48
Taiwan	69	25	17	10

Note: (1) Resource: Hofstede (1983), p.52 (2) Index: from 1 to 100; Rank: From 1 to 50, (3) Hofstede suggests five dimensions of national culture: power distance, individualism, masculinity, uncertainty avoidance, and long-term versus short-term orientation. For more detail please see Hofstede (1983).

Secondly, the concept of PB is now applied to various retailing industries, for example medicines (Bearden and Mason, 1978), clothing (Birtwistle and Freathy, 1998), health care products (Herstein and Gamliel, 2006), home appliance and food (Jin and Suh, 2005). While some empirical studies (e.g. Hansen et al., 2006) have found that private brands are better positioned in certain categories than others, this research has restricted itself to food category because of the high potential growth rate of PB food products in Asia-Pacific market. However, it would be useful to apply the research model in different categories with different characteristics (e.g. cosmetics and/or wine) and focus on the different performance among these categories.

Similarly, although this research focuses on one category in the brand level analysis providing an overview of many products, this research has not analyzed the product level factors. In fact, consumers' attitude toward PB might be different from one product to another. For example, the reason for a consumer to buy instant noodle might vary from buying ice cream while both products are labelled with the same retailer's name. Some previous studies (e.g. Mieres et al., 2006; Hansen et al., 2006) have found that depending on the products characteristics, the contribution of the factors varies. According to ACNielsen (2005), some categories such as milk, paper products, plastic bags, and wraps are strong players in PB sales. Therefore, future research should focus on the different performance among these

products and empirically study the influence exercised by the different products (e.g. kitchen rolls and milk).

Thirdly, because of the financial and time restriction, the analysis is based on two specific international retailers (i.e. Carrefour and 7-11) in Taiwan. Although they are two leading and representative retailers in Taiwan, the degree of generalization of research results presented in this study must be tempered with the realization that some biases might exist in this study. This implies that the results might not be generalized to all retailers' PB products in Taiwan or any other countries. But comparing some previous studies that only look at one specific retailer, this research still has a degree of representativeness. This limitation opens a door for future research to explore the PB development in their home market, especially for those researchers from non-UK and non-US countries such as China, Japan and India.

Fourthly, although previous studies have identified many consumer characteristic variables (see Chapter 3), discovering new personal and perceptual variables is still in great demand. New variables, especially cultural related variables, could be generated or discovered from face-to-face interviewing with consumers. Though this research has attempted to discover new variables by holding six focus group discussions, most results linked to previous research findings. However, this does not imply that it is not possible to discover new variables, especially culturally or nationally related variables, in the future since the evolution of PB never stops.

Fifthly, it would also be interesting to incorporate new or other existing variables into the model related to the consumers' PB attitude or purchase intention, such as smart shopper self perception, value consciousness, deal proneness and price-quality perception. All these variables have been mentioned in previous studies such as Burton et al. (1998) and Garretson et al. (2002) and have significant correlation with PB purchase behaviours. In this way, a more complete view could be obtained. However, one thing still

has to keep in mind that too many variables might confuse the focus or reduce the prediction power of the research model. Therefore, future research should focus on how to select the high contribution variables to build a more comprehensive view of consumer PB purchase behaviour.

Sixthly, this research shows that consumers' familiarity with PB is important in Taiwan that has a shorter PB development history, but there is no evidence to prove that consumers' familiarity with a specific retailers' PB may predict PB purchase, depending on the relative length of PB introduction in a particular country. Specifically, future research can focus on whether the data collected from countries with a short history of PB (e.g. Taiwan and Australia) have more predicting power in anticipating PB purchase than countries with a long PB history (e.g. the UK and US) or not. In addition, further comparison between results from this research and from other countries with different development history of PB would also be interesting.

Seventhly, in terms of data collection, it is possible that data collected from different approaches might produce different results because of varied method of data collection. It would be interesting to test the research model with data collected from different research method. In this research, however, the two approaches do produce distinct subpopulations: on-line (younger and higher educated) and personal (older and lower education). Thus it might be interesting for future research to further analysis the research model with different subpopulation (e.g. age and education) or varied survey methods (e.g. on-line and personal survey).

Finally, there is still a growing need for international insights into the reason why some consumers with specific characteristics are PB buyers. Because the retail sector is internationalisation now (Rugman and Girod, 2003), future research should focus on the influences of retailer internationalisation. For example, Cheng et al. (2007) noticed some retailing chains such as TESCO (the UK), Carrefour (France), Macro (Holland) have been moving across national borders and have begun to launch private labels in the

international market place and they argued that these international retailer's PB should be separated from local retailers' PB as international PB. International private brands might have more advantages than local PB since they absorb more know-how and design experience from the international retailers. This research did not discuss the difference between international PB and local PB because there are very few local retailers offering their own PB products in Taiwan. But in the future, researchers can further test the research model with these two different PB.

Furthermore, in the focus group, one consumer has mentioned that *I think Carrefour is a French Company, and I have more confidence in its brand* (Carrefour Group 3). Previous studies have evidenced that country-of-origin affects consumers' perceptions of their PB but international retailers might have some advantages or disadvantages in the effect of country-of-origin. For example, it is interesting to notice that in Taiwan, the top three grocery retailers (i.e. Carrefour, RT-Market (Auchan), Géant (Casino); see Chapter 2) are all French joint venture retailers. On the contrary, two British retailers (i.e. Tesco and Marks and Spencer) withdrew from Taiwan in 2007 and 2008. Therefore, it is interesting to further understand the country-of-origin effect in these coincidences. Though this research did not discuss the issue of country-of-origin, future research can further discuss the impact of country-of-origin on those international retailers.

9.5 Conclusion

Private brands play an important role when international retailers enter Asian grocery markets. However, little scholarly research has examined factors influencing consumers' selection of private brands offered by these international retailers in Asian countries. This research contributes by analysing the correlation between consumer characteristics and PB purchase intention and in proposing a model that integrates six consumer characteristic variables (price consciousness, innovativeness, store reputation reliance, perceived PB quality, perceived PB risk and familiarity with PB) influencing PB attitude and purchase intention in Taiwan.

To generate research hypotheses, this research adopted a facilitation approach, a mixed method-strategy, using a qualitative focus group method for facilitating the hypotheses that are generated from a review of the literature. Therefore, this research first reviewed related literature on the subject and then held six focus groups to get the primary information. A total of 814 useable questionnaires (409 from Carrefour and 405 from 7-11) were collected through on-line surveys and face-to-face interviewing. The results of data analysis showed a sound demographic distribution of research samples and the reliabilities and validities of all the constructs are satisfied with the statistical requirement.

This research contributes to the study of PB conceptually, substantively, and managerially. Conceptually, this research reinforced the view that the reasoned action model can be used to predict consumers' PB purchase intention. Reasoned action model refers to how consumers perceive a brand influences their attitude toward the brand and then their behaviour toward the brand. This research was based on the reasoned action model framework and found that some perceptual variables (i.e. familiarity with PB and store reputation reliance) have indirect effect on consumers' PB attitude whereas others perceptual variables (i.e. price consciousness, perceived quality and perceived risk of PB) have direct influence on PB attitude.

At the same time, this research also showed that some consumer characteristics can be used in explaining heterogeneous preferences for private brands. Specifically, previous studies have proven that socio-economic, personal and perceptual factors have correlation with PB purchase behaviour, but most studies were undertaken in either the UK or the US that has a longer PB development history. This research verifies the findings of previous studies in Taiwan that has a shorter development history of PB.

Substantively, this research found that different retailers' private brands attract consumers with distinctly different psychographic and demographic

profiles. For psychographic characteristics, 7-11 brand buyers profile related more to quality consciousness whereas Carrefour brand buyers profile related more to price consciousness and risk concernedness. Though the effect of demographic characteristics is weaker than psychographic characteristics (see Chapter 8), this research still concluded that 7-11 brand buyers profile related more to lower income and larger family size whereas Carrefour brand buyers profile related more to lower educational level.

Managerially, this research suggested that perceived PB quality, not price, is the most important reason constructing consumers' PB attitude and enhancing their PB purchase intention. Therefore, retailers should improve the packaging, labelling, and promotional support associated with their own private brands. Meanwhile, retailers also have the responsibility to educate their customers in terms of what is the true quality of their own brands. For example, now Carrefour in Taiwan aggressively uses different labels (e.g. value or premium) to educate their customers so that they can see what exactly they paid for.

Finally, as have been mentioned above, there is still much research that can be done in this area because of the growing potential for PB in the grocery retailing markets. The role for this research is only opening a door to more research. Future studies should attempt to explore more predictor variables and potential frameworks in different categories and different international markets to generate more knowledge in the consumers' PB purchase behaviours.

References

- Aaker, D. A. (2004), *Brand Portfolio Strategy*, The Free Press, New York, NY.
- AC Nielsen (2005), “2005 ACNielsen Consumer Purchase Behaviour Survey”, Download from <http://www.acnielsen.com.tw/news.asp?newsID=81>.
- AC Nielsen (2006), “What’s Hot around the Globe - Insights on Growth in Food & Beverage Products 2006”, Download from http://www2.acnielsen.com/reports/documents/2006_whats_hot_in_food_beverage_products_a4.pdf
- Acock, A. C. (2005), “Working With Missing Values”. *Journal of Marriage and Family*, 67, 1012-1028.
- Agarwal, S. and Teas, R. K. (2004), “Cross-national Applicability of a Perceived Risk-value Model”, *Journal of Product & Brand Management*, 13(4), 242-256.
- Ailawadi, K. L., Gedenk K. and Scott N. (2001), “Pursuing the Value Conscious Consumer: Private Labels versus National Brand Promotions”, *Journal of Marketing*, 65(1), 71-89.
- Ailawadi, K. L. and Harlam, B. (2004), “An Empirical Analysis of the Determinants of Retail Margins: the Role of Store-brand Share”, *Journal of Marketing*, 68, 147-65.
- Ajzen, I. and Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behaviour*, Prentice-Hall, Upper Saddle River, NJ.
- Alba, J. W. and Hutchinson, J. W. (1987), “Dimensions of Consumer Expertise”, *Journal of Consumer Research*, 13(4), 411-454.
- Andrews, I. R. and Valenzi, E. R. (1970), “The Relationship between Product Purchase Price and Blind Rated Quality”, *Journal of Marketing*, 1, 36-39.
- Anonymous, (2004), “The World of Food Science”, Available online at: <http://www.worldfoodscience.org/cms/>
- Argyrous, G. (2005), *Statistics for Research – With a Guide to SPSS*, SAGE.
- Bagozzi, R. P. and Baumgartner, H. (1994), *The Evaluation of Structural Equation Models and Hypothesis Testing in Principles of Marketing*

- Research*, Cambridge, Mass: Blackwell, 386-422.
- Bagozzi, R. P. and Yi, Y. (1988), "On the Evaluation of Structural Equation Models", *Journal of the Academy of Marketing Science*, 16, 74-94.
- Balabanis, G. and Craven, S. (1997), "Consumer Confusion from Own Brand Lookalikes: An Exploratory Investigation", *Journal of Marketing Management*, 13, 299-313.
- Baltas, G. (1997), "Determinants of Store Brand Choice: A Behavioural Analysis", *Journal of Product & Brand Management*, 6 (5), 315-324.
- Baltas, G. (2003), "A Combined Segmentation and Demand Model for Store Brands", *European Journal of Marketing*, 37(10), 499-513.
- Baltas, G. and Argouslidis, P. C. (2007), "Consumer Characteristics and Demand for Store Brands", *International Journal of Retail & Distribution Management*, 35(5), 328-341.
- Baltas, G. and Doyle, P. (1998), "An Empirical Analysis of Private Brand Demand Recognizing Heterogeneous Preferences and Choice Dynamics", *The Journal of the Operational Research Society*, 49(8), 790-799.
- Batra, R. and Sinha, I. (2000), "Consumer-level Factors Moderating the Success of Private Label Brands", *Journal of Retailing*, 76(2), 175-191.
- Bearden, W. O. and Mason, J. B. (1978), "Consumer-Perceived Risk and Attitudes toward Generically Prescribed Drugs", *Journal of Applied Psychology*, 63(6), 741-746.
- Becherer, R. C. and Richard L. M. (1978), "Self-Monitoring as a Moderating Variable in Consumer Behaviour", *Journal of Consumer Research*, 5, 159-162.
- Bellizzi, J. A., Hamilton, J. R., Krueckeberg, H. F. and Martin, W. S. (1981), "Consumer Perceptions of National, Private, and Generic Brands", *Journal of Retailing*, 57, 56-70.
- Bentler, P. M. (1988). *Theory and Implementation of EQS: A Structural Equations Program*, Los Angeles, California: BMDP Statistical Software.
- Bettman, J. R. (1974), "Relationship of Information-processing Attitude Structures to Private Brand Purchasing Behaviour", *Journal of Applied Psychology*, 59(1), 79-83.
- Binninger, A. S. (2008), "Exploring the Relationships between Retail Brands and Consumer Store Loyalty", *International Journal of Retail &*

Distribution Management, 36(2), 94-110.

Birtwistle, G. and Freathy, P. (1998), "More than Just a Name above the Shop: A Comparison of the Branding Strategies of Two UK Fashion Retailers", *International Journal of Retail & Distribution Management*, 26(8), 318-323.

Blaikie, N. (2000), *Designing Social Research: The Logic of Anticipation*, Backwell Publishers Inc.

Blattberg, R. C., Thomas, B., Peter, P. and Subrata, S. (1978), "Identifying the Deal Prone Segment", *Journal of Marketing Research*, 15(3), 369-377.

Bontemps, C., Orozco, V. and Réquillart, V. (2008), "Private Labels, National Brands and Food Prices", *Review of Industrial Organization*, 33(1), 1-22.

Browne, M. W. and Cudeck, R. (1993). "Alternative Ways of Assessing Model, Testing Structural Equation Models", Newbury Park, California: Sage, 136-162.

Bryman, A. (2004), *Quantity and Quality in Social Research*, Billing and Son Ltd.

Bryman, A. (2008), *Social Research Methods*, Oxford University Press.

Burger, P. C. and Schott, B. (1972), "Can Private Brand Buyers Be Identified?", *Journal of Marketing Research*, 9, 219-222.

Burns, A. C. and Bush, R. F. (2003), *Marketing Research and SPSS 11.0, Fourth Edition*, Prentice Hall.

Burt, S. (2000), "The Strategic Role of Retail Brands in British Grocery Retailing", *European Journal of Marketing*, 34 (8), 875-890.

Burton, S., Lichtenstein, D. R., Netemeyer, R. G. and Garretson, J. A. (1998), "A Scale for Measuring Attitude Toward Private Label Products and An Examination of Its Psychological and Behavioural Correlates", *Journal of the Academy of Marketing Science*, 26(4), 293-306.

Cardello, A. V. (1996), "Food Quality: Relativity, Context & Consumer Expectations", *Food Quality and Preference*, 31, 163-170.

Carson, D., Audrey, G., Chad, P. and Kjell, G. (2001), *Qualitative Marketing Research*, SAGE Publications Ltd, London.

Chang, Y. H. and Dawson, J. (2007), "The Acceptance and Adaptation of a Foreign Retail Format: The Case of the Convenience Store in Taiwan in the

1980s and 1990s”, *International Journal of Entrepreneurship and Small Business*, 4(1) 17-40.

Chen, R. and He, R. (2003), “Examination of Brand Knowledge, Perceived Risk and Consumers' Intention to Adopt an Online Retailer”, *Total Quality Management & Business Excellence*, 14(6), 677-693.

Cheng, M. S., Chen, S. L., Lin, J. Y. and Wang, S. T. (2007), “Do Consumers Perceive Differences Among National Brands, International Private Labels and Local Private Labels? The Case of Taiwan”, *Journal of Product & Brand Management*, 16(6), 368-376.

Choi, S. C. and Coughlan, A. T. (2006), “Private Label Positioning: Quality Versus Feature Differentiation From the National Brand”, *Journal of Retailing*, 82(2), 79-93.

Coe, B. D. (1971), “Private versus National Preference among Lower-and Middle-income Consumers”, *Journal of Retailing*, 47(3), 61-96.

Cole, C. A. and Balasubramanian, S. K. (1993), “Age Differences in Consumers' Search for Information: Public Policy Implications”, *Journal of Consumer Research*, 20, 157-69.

Collins, A. and Burt, S. (2006), “Private Brands, Governance, and Relational Exchange within Retailer–manufacturer Relationships: Evidence from Irish food Manufacturers Supplying the Irish and British Grocery Markets”, *Agribusiness*, 22(1), 1-20.

Collins-Dodd, C. and Lindley, T. (2003), “Store Brands and Retail Differentiation: the Influence of Store Image and Store Brand Attitude on Store Own Brand Perceptions”, *Journal of Retailing & Consumer Services*, 10(6), 345-354.

Connor, J. M. and Peterson, E. B. (1992), “Market-Structure Determinates of National Brand- Private Label Price”, *The Journal of Industrial Economics*, 40(2), 157-171.

Cooper, D. and Schindler, A. (2003), *Business Research Methods*. Irwin, MA.

Corstjens, M. and Lal, R. (2000), “Building Store Loyalty through Store Brands”, *Journal of Marketing Research*, 37 (3), 281-292.

Cunningham, I., Andrew P. H. and Giovanna, I. (1982), “Generic Brands versus National Brands and Store Brands”, *Journal of Advertising Research*,

22, 25-32.

Cunningham, S. M. (1967), *The Major Dimensions of Perceived Risk in Cox, D.F. (Ed.), Risk Taking and Information Handling in Consumer Behaviour*, Harvard University Press, Boston, MA.

Davies, G. (1990), "Marketing to Retailers: A Battle for Distribution?", *Long Range Planning*, 23(6), 101-108.

Davies, G. and Brito, E. (2004), "Price and Quality Competition between Brands and Own Brands: A Value Systems Perspective", *European Journal of Marketing*, 38(1/2), 30-55.

Dawson, J. (2001) "Is There a New Commerce in Europe?", *International Review of Retail, Distribution and Consumer Research*, 11, 287-299.

De Chernatony, L. and McDonald, H. B. (1992), *Creating Powerful Brands*, Butterworth-Heinemann.

DelVecchio, D. (2001), "Consumer Perceptions of Private Label Quality: The Role of Product Category Characteristics and Consumer Use of Heuristics", *Journal of Retailing and Consumer Services*, 8, 239-249.

De Mooij, M. and Hofstede, G. (2002), "Convergence and Divergence in Consumer Behaviour: Implications for International Retailing", *Journal of Retailing*, 78, 61-79.

Dhar, S. K. and Hoch, S. J. (1997), "Why Store Brand Penetration Varies by Retailer", *Marketing Science*, 16(3), 208-228.

Dick, A., Arun, J. and Paul, R. (1995), "Correlates of Store Brand Proneness: Some Empirical Observations", *The Journal of Product and Brand Management*, 4(4), 15-22.

Dick, A., Jain, A. and Richardson, P. (1997), "How Consumers Evaluate Store Brands", *Pricing, Strategy & Practice*, 5 (1), 18-24.

Dickson, P. R. and Sawyer, A. G. (1990), "The Price Knowledge and Search of Supermarket Shoppers", *Journal of Marketing*, 54, 42-53.

Dodds, W. B., Monroe, K. B., and Grewal, D. (1991), "Effects of Price, Brand, and Store Information on Buyers' Product Evaluations", *Journal of Marketing Research*, 28, 307-319.

Dunne, D. and Narasimhan, C. (1999), "The New Appeal of Private Labels", *Harvard Business Review*, 77(3), 41-49.

Fin, B. and Suh, Y. G. (2005), "Integrating Effect of Consumer Perception

Factors in Predicting Private Brand Purchase in a Korean Discount Store Context”, *Journal of Consumer Marketing*, 22(2), 62-71.

Fitzell, P. (1992), *Private Label Marketing in the 1990s*, Global Book Productions, New York, NY.

Fornell, C. and Larcker, D. F. (1981), “Evaluating Structural Equation Models with Unobservable Variables and Measurement Error”, *Journal of Marketing Research*, 18 (February), 39-50.

Frank, R. E. and Boyd, H. W. (1965), “Are Private-brand Prone Grocery Customers Really Different?”, *Journal of Marketing Research*, 2(4), 27-35.

Fratto, G. M., Jones, M. R. and Cassill, N. L. (2006), “An Investigation of Competitive Pricing among Apparel Retailers and Brands”, *Journal of Fashion Marketing & Management*, 10(4), 387-404.

Garretson, J., Fisher, D. and Burton, S. (2002), “Antecedents of Private Label Attitude and National Brand Attitude: Similarities and Differences”, *Journal of Retailing*, 78, 91-99.

Gefen, D., Karahanna, E. and Straub, D. W. (2003), “Trust and TAM in Online Shopping: An Integrated Model”, *MIS Quarterly*, 27(1), 51-90.

Goldsmith, R. E., Jon, B. F. and Jacqueline, K. E. (1995), “The Generality/Specificity Issue in Consumer Innovativeness Research”, *Technovation*, 15 (10), 601-611.

Granzin, K. L. (1981), “An Investigation of the Market for Generic Products”, *Journal of Retailing*, 57, 39-55.

Grewal, D., Krishnan, R., Baker, J. and Borin, N. (1998), “The Effects of Store Name, Brand Name and Price Discounts on Consumers' Evaluations and Purchase Intentions”, *Journal of Retailing*, 74(3), 331-352.

Grewal, D., Levy, M. and Lehmann, D. R. (2004), “Retail Branding and Customer Loyalty: An Overview”, *Journal of Retailing*, 80(4), 249-249.

Hair, J. F. Jr., Anderson, R. E., Tatham, R. L. and Black, W. C. (1998), *Multivariate Data Analysis (5th ed.)*, Englewood Cliffs, NJ: Prentice-Hal.

Hammersley, M. (1996), “The Relationship between Qualitative and Quantitative Research: Paradigm Loyalty versus Methodological Eclecticism. In J. T. E. Richardson (Ed.)”, *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*, 159-174. Leicester: BPS Books.

Hansen, K., S. and Chintagunta, P. (2006), "Understanding Store-Brand Purchase Behaviour across Categories", *Marketing Science*, 25(1), 75-90.

Herstein, R. and Gamliel, E. (2006), "The Role of Private Branding in Improving Service Quality", *Managing Service Quality*, 16(3), 306-319.

Hille, A. (2003), "Asia Trailing West in Private Label Growth", *Asia's Media & Marketing Newspaper*, 10/17/2003, 9-9.

Hoch, S. J. (1996), "How Should National Brands Think About Private Labels?", *Sloan Management Review*, 37(2), 89-102.

Hoch, S. J. and Banerji, S. (1993), "When Do Private Labels Succeed?", *Sloan Management Review*, 34(4), 57-67.

Hofstede, G. (1983), "National Cultures in Four Dimensions: A Research-based Theory of Cultural Differences among Nations", *International Studies of Management and Organization*, 8(1-2), 46-74.

Hornibrook, S. A., McCarthy, M. and Fearne, A. (2005), "Consumers' Perception of Risk: the Case of Beef Purchases in Irish Supermarkets", *International Journal of Retail & Distribution Management*, 33(10), 701-715.

Horowitz, I. (2000), "An Option-pricing Look at the Introduction of Private Labels", *Journal of the Operational Research Society*, 51(2), 221-230.

IGD (2009), Private Labels versus Brand's – the Shopper Perspective. *IGD, Letchmore Heath, Watford, May*. Available at: <http://www.igd.com/index.asp?id=1&fid=2&sid=2&cid=847>.

Im, S., Bayus, B. L. and Mason, C. H. (2003), "An Empirical Study of Innate Consumer Innovativeness, Personal Characteristics, and New-Product Adoption Behaviour", *Journal of the Academy of Marketing Science*, 31(1), 61-73.

Jacoby, J. and Kaplan, L. (1972), "Components of Perceived Risk", *Proceedings of the Third Annual Conference of the Association for Consumer Research*, 382-393.

Jiang, J. J., Klein, G. and Crampton, S. M. (2000), "A Note on SERVQUAL Reliability and Validity in Information System Service Quality Measurement", *Decision Sciences*, 31(3), 725-744.

Jin, B. and Suh, Y. G. (2005), "Integrating Effect of Consumer Perception Factors in Predicting Private Brand Purchase in a Korean Discount Store

Context”, *Journal of Consumer Marketing*, 22(2), 62-71.

Kapferer, J. N. (2000), *Strategic Brand Management*, 2nd edition, Kogan Page Limited, London, UK.

Kirk, J. (1992), “The New Status Symbols”, *Adweek*, 5, 38-39.

Krueger, R. A. and Casey, M. A. (2000), *Focus Groups: A Practical Guide for Applied Research*, Thousand Oaks, CA: Sage.

Kutner, M. H., Nachtsheim, C. J., Neter J. and Li, W. (2004), *Applied Linear Regression Models*, 4th edition, McGraw-Hill Irwin.

Laaksonen, H. and Reynolds, J. (1994), “Own Brands in Food Retailing Across Europe”, *Journal of Brand Management*, 2(1), 37-46.

Labeaga, J. M., Lado, N. and Martos, M. (2007), “Behavioural Loyalty towards Store Brands”, *Journal of Retailing & Consumer Services*, 14(5), 347-356.

Lamey, L., Deleersnyder, B., Dekimpe, M. G. and Steenkamp, J. B. (2007), “How Business Cycles Contribute to Private-label Success: Evidence from the United States and Europe”, *Journal of Marketing*, 71, 1-15.

Laroche, M. and Brisoux, J. E. (1989), “Incorporating Competition into Consumer Behaviour Models: The Case of the Attitude-Intention Relationship”, *Journal of Economic Psychology*, 10 (2), 343-362.

Laroche, M., Kim, C. and Zhou, L. (1996), “Brand Familiarity and Confidence as Determinants of Purchase Intention: An Empirical Test in a Multiple Brand Context”, *Journal of Business Research*, 37, 115-120.

Lichtenstein, D. R., Ridgway, N. M. and Netemeyer, R. G. (1993), “Price Perceptions and Consumer Shopping Behaviour: A Field Study”, *Journal of Marketing Research*, 30, 234-245.

Lin, M. Y. and Chang, L. H. (2003), “Determinants of Habitual Behaviour for National and Leading Brand in China”, *Journal of Product and Brand Management*, 12(2), 94-107.

Liu, T. and Wang, C. (2008), “Factors Affecting Attitudes Toward Private Labels and Promoted Brands”, *Journal of Marketing Management*, 24 (3/4), 283-298.

Livesey, F. and Lennon, P. (1978), “Factors Affecting Consumers’ Choice Between Manufacturer Brands and Retailer Own Labels”, *European Journal of Marketing*, 12(2), 158-170.

- M+M Planet Retail (2004), *Private Label Trends Worldwide*, Available online at: [http:// www.planetretail.net](http://www.planetretail.net).
- Malhotra, N. K. and Birks, D. F. (2006), *Marketing Research: An Applied Approach*, 3rd European Ed. Financial Times/Prentice Hall.
- Mann, T., Reeve, W. G. and Creed, P. G. (2002), "A Comparison of the Acceptability to Student Consumers of Three Food Products Retailed at Three 'Quality' Levels", *Food Service Technology*, 2(1), 13-18.
- Marshall, D. W. and Meiselman, H. L. (2006), "Limited Choice: An Exploratory Study into Issue Items and Soldier Subjective Well-Being", *Journal of Macromarketing*, 26(1), 59-76.
- Martinez E. and Montaner T. (2008), "Characterisation of Spanish Store Brand Consumers", *International Journal of Retail & Distribution Management*, 36(6), 477-493.
- McEnally, M. R. and Harris, J. M. (1984), "The Market for Generic Brand Grocery Products", *Journal of Marketing*, 48, 75-83.
- McGoldrick, P. J. (1990), *Retail Marketing*, London: McGraw-Hill.
- McGoldrick, P. J. and Marks, H. J. (1987), "Shoppers' Awareness of Retail Grocery Prices", *European Journal of Marketing*, 21(3), 63-76.
- McMaster, D. (1985), *The Probable Impact of Own Brand Strategy on Tower House Wares*, Management Centre for Birmingham. UK, Birmingham.
- Midgley, D. F. and Dowling G. R. (1993), "A Longitudinal Study of Product Form Innovation: The Interaction between Predispositions and Social Messages", *Journal of Consumer Research*, 19(4), 611-625.
- Mieres, G. C., Diaz, A. M. and Trespacios, J. A. (2006), "Antecedents of the Difference in Perceived Risk between Store Brands and National Brands", *European Journal of Marketing*, 40(1/2), 61-82.
- Mills, D. E. (1995), "Why Retailer Sales Private Labels", *Journal of Economics & Management Strategy*, 4(3), 509-528.
- Miranda, M. J. and Joshi, M. (2003), "Australian Retailers Need to Engage with Private Labels to Achieve Competitive Difference", *Asia Pacific Journal of Marketing and Logistics*, 15(3), 34-47.
- Mitchell, V. W. (1999), "Consumer Perceived Risk: Conceptualisations and Models", *European Journal of Marketing*, 33(1/2), 161-195.

- Monroe, K. B. (1976), "The Influence of Price Differences and Brand Familiarity on Brand Preferences", *Journal of Consumer Research*, 3, 42-49.
- Morgan, R. M. and Hunt, S. D. (1994), "The Commitment-Trust Theory of Relationship Marketing", *Journal of Marketing*, 58(3), 20-39.
- Murphy, P. E. (1978). "The Effect of Social Class on Brand and Price Consciousness for Supermarket Products", *Journal of Retailing*, 54, 33-42.
- Myers, J. G. (1967), "Determinants of Private Brand Attitude", *Journal of Marketing Research*, 4(1), 73-81.
- Nandan, S. and Dickinson, R. (1994), "Private Brands", *Journal of Consumer Marketing*, 11(4), 18-28.
- Narasimhan, C. and Wilcox, R. T. (1998), "Private Labels and the Channel Relationship: A Cross-category Analysis", *The Journal of Business*, 71, 573-601.
- NTIA and ESA (2003), *Using U.S. Census Bureau Current Population Survey Supplements*, U.S. Department of Commerce.
- Omar, O. E. (1992), "Grocery Shopper Behaviour and Retailers' Own-label Products", PhD Thesis, Manchester Metropolitan University.
- Omar, O. E. (1994), "Comparative Product Testing for Own-label Marketing", *International Journal of Retailing and Distribution Management*, 22(2), 12-17.
- Omar, O. E. (1995), "Retail Influence on Food Technology and Innovation", *International Journal of Retail & Distribution Management*, 23(3/4), 11-17.
- Omar, O. E. (1996), "Grocery Purchase Behaviour for National and Own-Label Brands", *Service Industries Journal*, 16(1), 58-66.
- Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research", *Journal of Marketing*, 49(4), 41-50.
- Park, C. W. and Winter, F. W. (1979), "Product Quality Judgement: Information Processing Approach", *Journal of Marketing Research Society*, 21, 211-217.
- Parker, P. and Kim, N. (1997), "National Brands versus Private Labels: An Empirical Study of Competition, Advertising and Collusion", *European Management Journal*, 15 (3), 220-236.

Pedhazur, E. J. and Schmelkin, L. P. (1991), *Construct Validation. In Measurement, Design and Analysis: An Integrated Approach*. Hillsdale, NJ: Lawrence Erlbaum and Associates.

Planet Retail (2007), "Private Label Trends Worldwide", Available online at: www.planetretail.net.

Private Label Manufacturers Association (PLMA) (1999), *Private Label Yearbook*, New York, NY.

Quelch, J. A. and Harding, D. (1996), "Brands versus Private Labels: Fighting to Win", *Harvard Business Review*, January-February, 99-109.

Raju, J. S., Sethuraman, R. and Dhar, S. K. (1995), "The Introduction and Performance of Store Brands", *Management Science*, 41(6), 957-978.

Rao, A. R. and Monroe K. B. (1988), "The Moderating Effect of Prior Knowledge on Cue Utilization in Product Evaluations", *Journal of Consumer Research*, 15 (2), 253-264.

Rao, A. R. and Monroe K. B. (1989), "The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review", *Journal of Marketing Research*, 26(3), 351-357.

Rao, T. R. (1969), "Are Some Consumers More Prone to Purchase Private Brands?", *Journal of Marketing Research*, 6(4), 47-50.

Raykov, T. (1997), "Scale Reliability, Cronbach's Coefficient Alpha, and Violations of Essential Tau-Equivalence with Fixed Congeneric Components", *Multivariate Behavioural Research*, 32(4), 329-353.

Richardson P. S., Dick, A. S., Jain, A. K. (1994), "Extrinsic and Intrinsic Cue Effects on Perceptions of Store Brand Quality", *Journal of Marketing*, 58(4), 28-36.

Richardson, P. S. (1997), "Are Store Brands Perceived to Be Just Another Brand?", *Journal of Product & Brand Management*, 6(6), 388-404.

Richardson, P. S., Jain, A. K. and Dick, A. (1996), "Household Store Brand Proneness: A Framework", *Journal of Retailing*, 72(2), 159-185.

Rogers, E. M. (1983), *Diffusion of Innovations*, 3rd ed., The Free Press, New York, NY.

Rogers, H., Ghauri, P. N. and George K. L. (2005), "The Impact of Market Orientation on the Internationalization of Retailing Firms: Tesco in Eastern Europe", *International Review of Retail, Distribution and Consumer*

Research, 15(1), 53-74.

Rothe, J. T. and Lawrence, M. L. (1973), "Purchase Behaviour and Brand Choice Determinants", *Journal of Retailing*, 49(3), 190-133.

Rubio, N. and Yague, M. J. (2009), "Alternative Panel Models to Evaluate the Store Brand Market Share", *European Journal of Marketing*, 43(1/2), 110-138.

Rugman, A. and Girod, S. (2003), "Retail Multinationals and Globalization: The Evidence is Regional", *European Management Journal*, 21(1), 24-37.

Seale, C., Gobo G., Gubrium, J. F. and Silverman D. (2004), *Qualitative Research Practice*, SAGE Publications.

Selnes, F. (1993), "An Examination of the Effect of Product Performance on Brand Reputation, Satisfaction and Loyalty", *European Journal of Marketing*, 27(9), 19-35.

Semeijn, J., Allard C., Riel, R. and Ambrosini, A. B. (2004), "Consumer Evaluations of Store Brands: Effects of Store Image and Product Attributes", *Journal of Retailing and Consumer Services*, 11, 247-258.

Sethuraman, R. and Cole, C. (1999), "Factors Influencing the Price Premiums that Consumers Pay for National Brands Over Store Brands", *Journal of Product & Brand Management*, 8(4), 340-351.

Shepherd, R. (1985), "Dietary Salt Intake", *Nutrition and Food Science*, 96, 10-11.

Sherry L. (1997), Available online at: http://www.cudenver.edu/~lsherry/item_analysis.html.

Shiu, C. E. Dawson J. and Marshall D. (2004), "Segmenting the Convenience and Health Trends in the British Food Market", *British Food Journal*, 106(2), 106-127.

Sinha, I. and Batra, R. (1999), "The Effect of Consumer Price Consciousness on Private Label Purchase", *International Journal of Research in Marketing*, 16(3), 237-251.

Smith, D. L. G. and Sparks, L. (1993), "The Transformation of Physical Distribution in Retailing: the Example of Tesco Plc", *International Review of Retail, Distribution & Consumer Research*, 3(1), 35-64.

Southgate, P. (1994), *Total Branding by Design*, Biddles Ltd, Norfolk.

Soberman, D. A. and Parker, P. M. (2006), "The Economics of

- Quality-equivalent Store Brands”, *International Journal of Research in Marketing*, 23(2), 125-139.
- Sprott, D. E. and Shimp, T. A. (2004), “Using Product Sampling to Augment the Perceived Quality of Store Brands”, *Journal of Retailing*, 80, 305-315.
- Stauffer, J. E. (1994), “Brand Management”, *Cereal Foods World*, 39, 406-408.
- Steenkamp, E. M. and Dekimpe, M. C. (1997), “The Increasing Power of Store Brands: Building Loyalty and Market Share”, *Long Range Planning*, 30(6), 917-930.
- Szymanski, D. M. and Busch, P. S. (1987), “Identifying the Generics-Prone Consumer: A Meta-Analysis,” *Journal of Marketing Research*, 24(4), 425-431.
- Thang, C. L. and Tan, L. B. (2003), “Linking Consumer Perception to Preference of Retail Stores: An Empirical Assessment of the Multi-attributes of Store Image”, *Journal of Retailing & Consumer Services*, 10(4), 193-200.
- Vahie, A. and Paswan, A. (2006), “Private Label Brand Image: Its Relationship with Store Image and National Brand”, *International Journal of Retail & Distribution Management*, 34(1), 67-84.
- Veloutsou, C., Gioulistanis, E. and Moutinho, L. (2004), “Own Labels Choice Criteria and Perceived Characteristics in Greece and Scotland: Factors Influencing the Willingness to Buy”, *Journal of Product & Brand Management*, 13(4), 228-241.
- Verhoef, P. C., Nijssen, E. J. and Sloot, L. M. (2002), “Strategic Reactions of National Brand Manufacturers towards Private Labels: An Empirical Study in the Netherlands”, *European Journal of Marketing*, 36(11/12), 1309-1326.
- Weber, R. (2004), “The Rhetoric of Positivism versus Interpretivism”, *MIS Quarterly*, 28(1): iii-xii.
- Wells, L. E., Farley, H. and Armstrong, G. A. (2007), “The Importance of Packaging Design for Own-label Food Brands”, *International Journal of Retail & Distribution Management*, 35(9), 677-690.
- Wheatley, J. J. (1981), “The Effect of Generic Products on Consumer

- Perceptions and Brand Choice”, *Advances in Consumer Research*, 8(1), 166-169.
- Whelan, S. and Davies, G. (2006), “Profiling Consumers of Own Brands and National Brands Using Human Personality”, *Journal of Retailing & Consumer Services*, 13(6), 393-402.
- Wileman, A. and Jary, M. (1997), *Retail Power Plays: From Trading To Brand Leadership*, Basingstoke, Macmillan.
- Winningham, B. (1999), “Private Label Grows Up”, *Discount Merchandiser*, 39 (11), 109-109.
- Wu, B., Holmes, J. and Alexander, J. (1984), “Risk Taking: Its Effect on Selection of Branded And Generic Grocery Items”, *Akron Business Review*, 15(3), 12-17.
- Wulf, K. D., Goedertier, F. and Ossel, G. V. (2005), “Consumer Perceptions of Store Brands Versus National Brands,” *Journal of Consumer Marketing*, 22(4), 223-232.
- Zikmund, W. G. (1997), *Business Research Methods*, 5th Ed., New York: Dryden.

Further Reading

Ackerman, D. and Tellis, G. (2001), "Can Culture Affect Prices? A Cross-cultural Study of Shopping and Retail Prices", *Journal of Retailing*, 77(1), 57-82.

Ailawadi, K. L. and Keller, K. L. (2004), "Understanding Retail Branding: Conceptual Insights and Research Priorities", *Journal of Retailing*, 80 (4), 331-342.

Ailawadi, K. L., Pauwels, K. and Steenkamp, J. (2008), "Jan-Benedict E.M. Private-Label Use and Store Loyalty", *Journal of Marketing*, 72, 19-30.

Anderson, J. C. and Gerbing, D. W. (1988), "Structural Equation Modelling in Practice: A Review and Recommended Two-Step Approach", *Psychological Bulletin*, 103, 411-423.

Ashley, S. R. (1998), "How to Effectively Compete Against Private-Label Brands", *Journal of Advertising Research*, January/February, 75-82.

Blattberg, R. C. and Scott, A. N. (1990), *Sales Promotion: Concepts, Methods, and Strategies*. 1st ed. Englewood Cliffs, NJ: Prentice Hall.

Bonfrer, A. and Chintagunta, P. K. (2004), "Store Brands: Who Buys Them and What Happens to Retail Prices When They Are Introduced?", *Review of Industrial Organization*, 24, 195-218.

Bontemps, C., Orozco, V. and Réquillart, V. (2008), "Private Labels, National Brands and Food Prices", *Review of Industry Organization*, 33, 1-22.

Boyd, H. W. and Frank, R. E. (1966), "The Importance of Private Labels in Food Retailing", *Business Horizons*, Summer, 81-90.

Burt, S. L. and Sparks, L. (2002), "Corporate Branding, Retailing and Retail Internationalization", *Corporate Reputation Review*, 5(2/3), 194-212.

Choo, H., Chung, J. E. and Pysarchik, D. T. (2004), "Antecedents to New Food Product Purchasing Behaviour among Innovator Groups in India", *European Journal of Marketing*, 38(5/6), 608-625.

Collins, A. (2002), "The Determinants of Retailers' Margin Related Bargaining Power: Evidence From the Irish Food Manufacturing Industry", *International Review of Retail, Distribution & Consumer Research*, 12(2), 165-189

- Cotterill, R. W. and Putsis, W. P. (2000), "Market Share and Price Setting Behaviour for Private Labels and National Brands", *Review of Industrial Organization*, 17, 17-39.
- Cotterill, R. W. and Putsis, W. P. (2001), "Do Models of Vertical Strategic Interaction for National and Store Brands Meet the Market Test?", *Journal of Retailing*, 77, 83-109.
- Deleersnyder, B., Dekimpe, M. G., Steenkamp, J. E. M. and Koll, O. (2007), "Win-win Strategies at Discount Stores", *Journal of Retailing and Consumer Services*, 14, 309-318.
- Dick, A., Jain, A. and Richardson, P. (1996), "How Consumers Evaluate Store Brands", *Journal of Product & Brand Management*, 5 (2), 19-28.
- Dunn, M., Murphy, P. and Skelly, G. (1986), "Research Note: The Influence of Perceived Risk on Brand Preference for Supermarket Products", *Journal of Retailing*, 62(2), 204-216.
- Erdem, T., Zhao, Y. and Valenzuela, A. (2004), "Performance of Store Brands: A Cross-Country Analysis of Consumer Store-Brand Preferences, Perceptions, and Risk", *Journal of Marketing Research*, XLI (February), 86-100.
- Fabian, B. S. and Michael, W. (2005), "Private Label Products as Experience Goods", *Journal of Agricultural & Food Industrial Organization*, 3(9), 1-17.
- Fugate, D. L. (1979), *An Exploratory Investigation of the Effects of Manufacturer Disclosure on Consumer Perception of Private Brand Grocery Product Attributes*, Unpublished doctoral dissertation, University of Missouri-Columbia.
- Fugate, D. L. (1986), "The Effects of Manufacturer Disclosure on Consumer Perceptions of Private Brand Grocery Product Attributes", *Journal of Consumer Affairs*, 20 (1), 118-132.
- Gamliel, E. and Herstein, R. (2007), "The Effect of Framing on Willingness to Buy Private Brands", *Journal of Consumer Marketing*, 24(6), 334-339.
- Gilbert, D. (2003), *Retail Marketing Management*, Pearson, London.
- Gomez-Arias, F. T. and Bello-Acebron, L. (2008), "Why Do Leading Brand Manufacturers Supply Private Labels?", *Journal of Business & Industrial Marketing*, 23(4), 273-278.

Gonza'lez, C., Diaz, A. M. and Trespalacios, J. A. (2006), "Antecedents of the Difference in Perceived Risk between Store Brands and National Brands", *European Journal of Marketing*, 40(1/2), 61-82.

Halstead, D. and Ward, C. B. (1995), "Assessing the Vulnerability of Private Label Brands", *Journal of Product & Brand Management*, 4(3), 38-48.

Harrison, M. C., Cooper, M. B. and Reidenbach, R. E. (1983), "Generic Products: Low Price and Low Quality and What this Means to The Consumer", *Akron Business and Economic Review*, 14, 27-30.

Hofstede, G. (1980), *Culture's Consequences: International Differences in Work Related Values*, Sage, Beverly Hills.

Hsu, H. C. and Lai, C. S. (2008), "Examination of Factors Moderating the Success of Private Label Brands: A Study of the Packaged Food Market in China", *Journal of Food Products Marketing*, 14(4), 1-20.

Johansson, U. and Burt, S. (2004), "The Buying of Private Brands and Manufacturer Brands in Grocery Retailing: A Comparative Study of Buying Processes in the UK, Sweden and Italy", *Journal of Marketing Management*, 20(7/8), 799-824.

Johansson, U. and Burt, S. (2004), "The Buying of Private Brands and Manufacturer Brands in Grocery Retailing: A Comparative Study of Buying Processes in the UK, Sweden and Italy", *Journal of Marketing Management*, 20, 799-824.

Juhl, H. J., Esbjerg, L., Grunert, K.G., Bech-Larsen, T. and Brunso, K. (2006), "The Fight between Store Brands and National Brands—What's the Score?", *Journal of Retailing and Consumer Services*, 13, 331-338.

Karray, S. and Guiomar, M. H. (2009), "A Dynamic Model for Advertising and Pricing Competition between National and Store Brands", *European Journal of Operational Research*, 193, 451-467.

Karray, S. and Zaccour, G. (2006), "Could Co-op Advertising be a Manufacturer's Counterstrategy to Store Brands?", *Journal of Business Research*, 59, 1008-1015.

Keaveney, S. M. (1995), "Consumer Switching Behaviour in Service Industries: An Exploratory Study", *Journal of Marketing*, 59(2), 71-82.

Kim, N. and Parker, P. M. (1999), "Collusive Conduct in Private Label Markets", *International Journal of Research in Marketing*, 16, 143-155.

- King, N. (1998), *Template Analysis*, in Symon, G, Cassell, C. (Eds), *Qualitative Methods and Analysis in Organizational Research*, Sage, London.
- Kwon, K. N., Lee, M. H. and Kwon, Y. F. (2008), "The Effect of Perceived Product Characteristics on Private Brand Purchases", *Journal of Consumer Marketing*, 25(2), 105-114.
- Lichtenstein, D. R. and Burton S. (1989), "The Relationship between Perceived and Objective Price-Quality", *Journal of Marketing Research*, 26, 429-443.
- Mano, H. and Elliott, M. T. (1997), "Smart Shopping: The Origins and Consequences of Price Savings. In M. Brucks & D. J. MacInnis (eds.)," *Advances in Consumer Research*, 24 Provo, UT: Association for Consumer Research, 504-510.
- McGoldrick, P. J. (1990), "Grocery Generics – An Extension of the Private Label Concept", *European Journal of Marketing*, 18(1), 5-24.
- McMaster, D. (1985), "Own Brands and the Cook-ware Market", *European Journal of Marketing*, 12(1), 83-94.
- Mieres, C. G., Mart'in, A. M. D. and Gutie'rrez, J. A. T. (2006), "Influence of Perceived Risk on Store Brand Proneness", *International Journal of Retail & Distribution Management*, 34(10), 761-772.
- Miquel, S., Caplliure, E. M. and Aldas-Manzano, J. (2002), "The Effect of Personal Involvement on the Decision to Buy Store Brands", *Journal of Product & Brand Management*, 11(1), 6-18.
- Mitchell, V. W. and Kiral, H. R. (1999), "Risk Positioning of UK Grocery Multiple Retailers", *International Review of Retail, Distribution & Consumer Research*, 9(1), 17-39.
- Mittal, B. (1994), "An Integrated Framework for Relating Diverse Consumer Characteristics to Supermarket Coupon Redemption", *Journal of Marketing Research*, 31(4), 533-544.
- Morton, F. S. and Zettelmeyer, F. (2004), "The Strategic Positioning of Store Brands in Retailer–Manufacturer Negotiations", *Review of Industrial Organization*, 24, 161-194.
- Narasimhan, C. (1984), "A Price Discrimination Theory of Coupons", *Marketing Science*, 3, 128-147.

- Oubina, J., Rubio, N. and Yague, M. J. (2006), "Strategic Management of Store Brands: An Analysis from the Manufacturer's Perspective", *International Journal of Retail & Distribution Management*, 34(10), 742-760.
- Palmer, M. (2004), "International Retail Restructuring and Divestment: The Experience of Tesco", *Journal of Marketing Management*, 20(9/10), 1075-1105.
- Pauwels, K. and Srinivasan, S. (2004), "Who Benefits from Store Brand Entry?", *Marketing Science*, 23(3), 364-390.
- Peterson, R. A. and William, R. W. (1985), "Perceived Risk and Price Reliance Schema as Price-perceived Quality Mediators, In Perceived Quality: How Consumers View Stores and Merchandise", Eds. *Jacob Jacoby and Jerry C. Olson. Lexington, MA: D.C. Heath*, 247-268.
- Price, L. L. and Arnould, E. J. (1999), "Commercial Friendships: Service Provider-client Relationships in Context", *Journal of Marketing*, 63(4), 38-56.
- Schindler, R. M. (1988), "The Role of Ego-expressive Factors in the Consumer's Satisfaction with Price", *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behaviour*, 1(1), 34-39.
- Sheinin, D. A. and Wagner, J. (2003), "Pricing Store Brands Across Categories and Retailers", *Journal of Product & Brand Management*, 12(4), 201-219.
- Shiu, C. C. and Dawson, J. A. (2002), "Cross-national Consumer Segmentation of Internet Shopping for Britain and Taiwan", *The Service Industries Journal*, 22(1), 147-166.
- Simmons, M. and Meredith, B. (1984), "Own Label Profile and Purpose", *Journal of the Marketing Research Society*, 26(1), 3-27.
- Steenkamp, J. B. and Baumgartner, H. (1998), "Assessing Measurement Invariance in Cross-national Research", *Journal of Consumer Research*, 25, 78-90.
- Steiner, R. L. (2004), "The Nature and Benefits of National Brand/Private Label Competition", *Review of Industrial Organization*, 24, 105-127.
- Sternquist, B. and Chen, Z. (2006), "Food Retail Buyer Behaviour in the People's Republic of China: A Grounded Theory Model", *International*

Journal of Qualitative Market Research, 9(3), 243-265.

Sudhir, K. and Talukdar, D. (2004), "Does Store Brand Patronage Improve Store Patronage?", *Review of Industrial Organization*, 24,143-160.

Suyama, K., Umemoto, H. and Suzuki Y. (2004), "National Brands and Private Brands Communication in Japan - An Explanation of the Low Private Brands Market Share", *The Japanese Economy*, 32(3), 105-124.

Toh, R. and Heeren, S. (1982), "Perceived Risks of Generic Grocery Products and Risk Reduction Strategies of Consumers", *Akron Business and Economic Review*, 13, 43-48.

Uncles, M. and Ellis, K. (1989), "The Buying of Own Labels", *European Journal of Marketing*, 23(3), 57-65.

Vaidyanathan, R. and Aggarwal, P. (2000), "Strategic Brand Alliances: Implications of Ingredient Branding for National and Private Label Brands", *Journal of Product & Brand Management*, 9(4), 214-228.

Wang, H., Kalwani, M. U. and Akc-ura, T. (2007), "A Bayesian Multivariate Poisson Regression Model of Cross-category Store Brand Purchasing Behavior", *Journal of Retailing and Consumer Services*, 14, 369-382

Zaichkowsky, J. L. and Simpson, R. N. (1996), "The Effect of Experience with a Brand Imitator on the Original Brand", *Marketing Letters*, 7(1), 31-39.

Zeithaml, V. A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence", *Journal of Marketing*, 52, 2-22.

Appendix A: Focus Group Interview Progress

A. Research purpose and meeting process overview

Announce that :

- ⇒ This is an academic research project with the University of Edinburgh.
- ⇒ This research project will attempt to understand the Taiwanese consumer food selection behaviours, and the result will be used only for academic purposes.
- ⇒ The conversation will be recorded with a type recorder.
- ⇒ If you still want to express your own opinion after the meeting, an e-mail address and phone number of interviewer will be given.
- ⇒ The meeting will be conducted in no more than two hours, and dessert and refreshers will be offered.
- ⇒ There will be some examples of Carrefour brand and other manufacture brands products.

B. Understanding the shopping experience of the participator

Opening	1. Tell us your name and tell us how often you go to Carrefour?
Introductory	2. How do you see Carrefour Value and Carrefour brand products?
Transition	3. Think back to last time you went to Carrefour, what Carrefour brand products have you bought?
Key Questions	4. What were particularly reasons for you to buy those products?
	5. How did you make judgment for the quality of those products?
	6. What's your feeling when you select Carrefour brand products?
	7. Do you see differences in Carrefour brand products across different products in the store?
Ending Questions	8. Usually, what kind of category will you avoid selecting Carrefour brand products?
	9. Can you tell us more about your concern for not purchasing Carrefour brand products in those categories?

Note: Understanding about the background of participator (get from previous paper work)

1. How old are you?
2. How many family members are in your house?
3. What is your occupation?
4. What's your monthly household income?
5. What is your education level?
6. How often are you shopping food at store per month?

Appendix B: Questionnaire

Dear Interviewee:

Sincerely thanks for your completing this academic questionnaire. This is a part of academic research of doctoral student Chen-yu Lin's thesis of the University of Edinburgh about Taiwanese consumers' food consumption behaviour. Because of your help, this research can realize how the personality of Taiwanese consumers' factors affect private brand selection behaviours. The questionnaire was conducted with anonymity and the result will be used only for academic purposes.

Through your experience sharing, we can understand more about the Taiwanese consumer behaviours. **Please fill out the questionnaire and returned it to the interviewer or as an attachment to an e-mail to: chengyu0701@yahoo.com.tw or Fax to: 047990842**

Best Wishes,



**Business School of
The University of Edinburgh
PhD student: Chen-Yu Lin
Supervisors: Professor
David Marshall
& Professor John Dawson**

Part 1: About your personalities


A. Some personalities such as thriftiness and innovation sometimes determine what kind of brand. According to your personal experience of purchasing food (e.g. Biscuits, brand and beverage) , please answer the questions below:
1. I am not willing to go to extra effort to find lower prices products.
2. I will shop at different stores to find lower prices products.
3. It is important to me to get the best price for the product I buy.
4. I am very concerned about low prices, but I am equally concerned about product quality.
5. When I buy products, I like to be sure that I am getting my money's worth.
6. When I shop, I usually compare the 'price per kilogram' information.
7. Generally speaking, the higher the price of a product, the higher the quality.
8. The old saying 'you get what you pay for' is generally true.
9. The price of a product is a good indicator of its quality.
10. I will not give up high quality for a lower price.
11. I always buy the best.
12. It is important to me to buy high-quality products.
13. When I see a product somewhat different from the usual, I check it out.
14. I like to try new and different things.
15. I often seek out information about new products and brands
16. Compared to other people, I don't like to take risks.
17. Compared to most people I know, I like to gamble on things.
18. I prefer to always shop at the same store.
19. I am willing to make an effort to shop at the same store.
20. Usually, I care a lot about which particular store I shop at.
21. Usually, the more famous the store, the better the product quality it sell.
22. Store reputation is a good indicator of product quality.
23. I believe that a well-known retailer must sell no inferior products.

Part 2: Carrefour brand purchasing behaviours

Have you shopped at Carrefour and knew the existence of Carrefour brand?

NO (Please return to page 4 and skip the questions of Part 2)

YES (Please continue)

Both Carrefour's private brand and manufacture can be bought in Carrefour. Different from manufacture's brands such as President, or Wei-Chuan, Carrefour brand is brand sold by Carrefour and you can see an obvious logotype  on the package. This research focuses only on the purchase behaviour of **food**, such as biscuits, bread and beverages. According to your personal experience of purchasing food, please answer the questions below:

1. I like to buy Carrefour brand foods.
2. I look for Carrefour brand foods when I shop in Carrefour.
3. I will continuously buy Carrefour brand foods.
4. When I buy Carrefour brand foods, I always feel that I am getting a good deal.
5. When I buy Carrefour brand foods, I always think that Carrefour brand is a good brand.
6. I have much usage experience with Carrefour brand food items.
7. I am very familiar with the various Carrefour brand food items available in the marketplace.
8. Carrefour brand offers good quality food items.
9. Carrefour brand offers various selections of food items.
10. Carrefour brand offers good taste of food items.
11. Purchasing food in Carrefour saves me more money than other stores.
12. Purchasing Carrefour brand food costs me more money because I can't get use to it.
13. The purchase of Carrefour brand food items is risky because the quality of store brand is inferior.
14. The purchase of Carrefour brand food items is risky because the taste of Carrefour brands food is awful.
15. Since Carrefour brand is of poor quality, buying them is a waste of money.
16. People who buy Carrefour brand items are cheap.

Part 3: 7-11 brand purchasing behaviours

Have you shopped at 7-11 and knew the existence of 7-11 brand?

NO (Please return to next page and skip the questions of Part 2)

YES (Please continue)

Please note that this part of questions focuses only on the purchase behaviour of 7-11 brand **food**, such as biscuits, bread and beverages. 7-11 brand is brand sold by 7-11 and you can see an obvious logotype 7-ELEVEN



or  on the package. Please answer the questions below:

1. I like to buy 7-11brand foods.
2. I look for 7-11brand food when I shop in Carrefour.
3. I will continuously buy 7-11brand foods.
4. When I buy 7-11brand foods, I always feel that I am getting a good deal.
5. When I buy 7-11brand foods, I always think that 7-11brand is a good brand.
6. I have much usage experience with 7-11brand food items.
7. I am very familiar with the various 7-11brand food items available in the marketplace.
8. 7-11brand offers good quality food items.
9. 7-11brand offers various selections of food items.
10. 7-11brand offer good taste of food items.
11. Purchasing food in 7-11 saves me more money than other stores.
12. Purchasing 7-11brand food costs me more money because I can't get use to it.
13. The purchase of 7-11brand food items is risky because the quality of store brands is inferior.
14. The purchase of 7-11brand food items is risky because the taste of 7-11brand foods is awful.
15. Since 7-11brand is of poor quality, buying them is a waste of money.
16. People who buy 7-11brand items are cheap.

Part 4. Questions about respondent:

(This part was conducted with anonymity and the result will be used only for academic purposes.)

1. What's your gender? Man Woman
2. How old are you? 18-24 25-34 35-44 45-59
 over 60
3. How many family members are in your house? _____
4. What is your occupation? homemaker
fulltime/self-employed
 part time-other retired student
 waiting for work
5. Your monthly income? <20,000
20,000-39,999 40,000-99,999 >100,000 NT
6. What is your education level? Junior high school/less
Senior High school College University
Advanced degree
7. How often do you shop at Carrefour per week? _____
8. How often do you shop at 7-11 per week? _____

**Please make sure that you have clicked all items and return
this questionnaire to the interviewer or E-mail to
chengyu0701@yahoo.com.tw or fax to 047990842.**

Thanks for your kind support!

Appendix C: Questionnaire (Chinese Edition)

親愛的受訪者：

首先感謝您在百忙之中抽空完成這張問卷。這份問卷是關於台灣消費者購買食品行為的研究，也是英國愛丁堡大學管理學院研究生林呈昱博士論文研究的一部分。因為您的幫助，這研究得以瞭解到台灣消費者的人格特質，如何影響購買零售商自有品牌的行為。問卷是採用匿名的方式進行，填答內容絕不會對外公佈，結果也將只用於學術用途，請放心填答。

我們希望藉由您的經驗分享，使我們對於台灣消費者的行為有更深入的認識。請依照實際的情況及個人的感受填寫詢問表，在填答完成後，請將問卷交還給訪談人員或 E-mail 到 chengyu0701@yahoo.com.tw 或者傳真到 047990842。



感謝您的協助與合作

英國愛丁堡大學管理學院

博士班學生：林呈昱 敬上

指導教授：David Marshall 教授

John Dawson 教授

第一部份：關於你的個人人格特質的問題

A. **個人人格特質**某些人格特質例如節儉或創新有時會決定選擇你會選擇何種品牌的食品。請根據你平時購買食品（例如餅乾、麵包、飲料）的個人習慣回答下面的問題：


1. 我不願意付出額外的努力去尋找更低價格的產品。
2. 我會到不同的商店尋找更低價的食品。
3. 對我來說，買到最低價的產品是很重要的。
4. 我很在意價格，但是我同時也很在意東西好不好吃。
5. 當我買產品時，我會去確認我所花的錢是否值得。
6. 當我採買時，我通常會注意比較“每公斤多少錢”的產品訊息。
7. 一般來說，產品的價格越高，品質也會越好。
8. 俗話說“一分錢一分貨”通常是對的。
9. 產品的價格高低是它的品質好壞的指標。

<p>B. 關於你購物習慣的問題：</p> <p>個人的購物習慣有時會決定品牌選擇。請根據你購買食品的個人經驗回答下面的問題：</p>
10. 我通常都會買我習慣買的品牌。
11. 我總是買最好品質的東西。
12. 買優質的產品對我而言是很重要的。
13. 當我看見與眾不同的產品時，我會想要買來試試。
14. 我喜歡嘗試新鮮和不同事物。
15. 我經常會去尋找新產品或新品牌的資訊。
16. 與其他人相比，我不喜歡冒險。
17. 與我認識的大多數人相比，我喜歡在做事情時下點賭注。
18. 我總是喜歡在同一家商店採買。
19. 我願意多花些精力到我熟悉的商店購物。
20. 通常，我很在乎我是否在特定的商店買東西。
21. 通常商店越有名，它所賣的產品品質也會越好。
22. 商店名聲好壞是商品品質良莠的指標。
23. 我相信知名的零售商所賣的東西，通常不會是黑心食品。

第二部份：家樂福品牌的購物行為

你是否曾經到過家樂福購物且知道有家樂福品牌的產品？

否請翻到第四頁，並跳過第二部份的問題) 是 請繼續填答)


家樂福所販售的品牌種類可以粗略的分為家樂福自有品牌以及製造商品牌兩類。不同於製造商品牌如統一或味全，家樂福牌商品是由家樂福所獨家販售的商品品牌，通常在包裝上會有明顯的標誌 。請針對您買家樂福牌食品(例如餅乾、麵包、飲料等等)的經驗來填答。

1. 我喜歡買家樂福牌的食品。
2. 當我在家樂福採買時，我會尋找家樂福牌的食品。
3. 我未來將會持續購買家樂福牌的食品。
4. 當我買家樂福牌食品時，我總是感到我正得到一筆好交易。
5. 當我買家樂福牌食品時，我總是認為家樂福牌是一個好品牌。
6. 我有許多購買家樂福牌食品的經驗。
7. 我很熟悉哪些產品架上有家樂福牌的食品。
8. 家樂福牌提供品質優良的食品。
9. 家樂福牌提供了各種不同種類的食品選擇。
10. 家樂福牌的食品口味通常不錯。
11. 與其它商店相比，在家樂福購買食品能節省更多的錢。
12. 由於不習慣家樂福牌食物，買家樂福牌的食品反而花更多錢。
13. 由於家樂福牌的食品經常是劣質品，因此買它們很危險。
14. 購買家樂福牌的食品是很危險的，因為它們嘗起來都很糟糕。
15. 因為家樂福牌食品的品質很低劣，因此買它們簡直是浪費金錢。
16. 通常會買家樂福牌食品東西的人，都是貪小便宜的人。

第三部份：關於 7-11 品牌的購物行為

你是否曾經到過 7-11 購物且知道有 7-11 品牌的產品產品？

否(請翻到下一頁，並跳過第三部份) 是 (請繼續填答)

請注意，這個部份的研究只針對您購買 7-11 牌食品 (例如餅乾、麵包、飲料等等) 的經驗來填答。7-11 商品是由 7-11 所獨家販售的商品品牌，通常在包裝上會有明顯的 7-ELEVEN 或  的標誌。

1. 我喜歡買 7-11 牌的食品。
2. 當我在 7-11 採買時，我會尋找 7-11 牌的食品。
3. 我未來將會持續購買 7-11 牌的食品。
4. 當我買 7-11 牌食品時，我總是感到我正得到一筆好交易。
5. 當我買 7-11 牌食品時，我總是認為 7-11 牌是一個好品牌。
6. 我有許多購買 7-11 牌食品的經驗。
7. 我很熟悉哪些產品架上有 7-11 牌的食品。
8. 7-11 牌提供品質優良的食品。
9. 7-11 牌提供了各種不同種類的食品選擇。
10. 7-11 牌的食品口味通常不錯。
11. 與其它商店相比，在 7-11 購買食品能節省更多的錢。
12. 由於不習慣 7-11 牌食物，買 7-11 牌的食品反而花更多錢。
13. 由於 7-11 牌的食品經常是劣質品，因此買它們很危險。
14. 購買 7-11 牌的食品是很危險的，因為它們嘗起來都很糟糕。
15. 因為 7-11 牌食品品質很低劣，因此買它們簡直是浪費金錢。
16. 通常會買 7-11 牌食品東西的人，都是貪小便宜的人。

第四部分：個人基本資料（此部分是為了統計分析之用途，採匿名方式，請依照實際狀況填答）

1. 您的性別？	<input type="checkbox"/>	男	<input type="checkbox"/>	女								
2. 你的年齡？	<input type="checkbox"/>	18-24	<input type="checkbox"/>	25-34	<input type="checkbox"/>	35-44	<input type="checkbox"/>	45-59	<input type="checkbox"/>	超過 60		
2. 目前經常與你同住的家庭成員有多少？(包括自己)	_____											
3. 你的工作情況是？	<input type="checkbox"/>	家庭主婦	<input type="checkbox"/>	全職工作	<input type="checkbox"/>	兼 職工作（自由業）	<input type="checkbox"/>	退休	<input type="checkbox"/>	全職學生	<input type="checkbox"/>	待業 （正在找工作中）
4. 你的每月收入大約？	<input type="checkbox"/>	< 2 萬	<input type="checkbox"/>	2 萬-4 萬	<input type="checkbox"/>	4 萬-10 萬	<input type="checkbox"/>	>10 萬台幣				
5. 你的教育程度是？	<input type="checkbox"/>	中學以下	<input type="checkbox"/>	高中/職	<input type="checkbox"/>	專科	<input type="checkbox"/>	大學	<input type="checkbox"/>	研究所含以上		
6. 你一個禮拜平均逛家樂福幾次（大約）？	_____次（兩 週去一次為 0.5）											
7. 你一個禮拜平均逛 7-11 幾次（大約）？	_____次											

問卷到此結束。

請確認您以勾選所有項目，請將問卷交還給訪談人員或

E-mail 到 chengyu0701@yahoo.com.tw 或者傳真到

047990842。再次感謝您的協助！