

The Effect of Culture on Private Label Purchasing Behaviour

**(A Comparative Study of Supermarket Shoppers in
the UK and China)**

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ABSTRACT

In the light of both increasing competition and internationalization in retailing, consumer behavior has become an important determinant of the performance and development of international retailing. The use of private labels has increased significantly during the last decade and particularly during the most recent global economic recession. However, while the role and impact of private labels has been studied in a considerable depth in Western countries, particularly in the United Kingdom, it remains largely unexplored in other parts of the world, including China, a major economic and political force, culturally distinct from the rest of the world and where supermarkets are still in the early stages of development, in number, location, what they sell and how they sell.

The aim of this thesis is to investigate the impact of culture on the propensity of supermarket shoppers to purchase private label products, using a perceived risk framework from a cross-cultural perspective. A comparative study is undertaken of shoppers in Tesco, the world's third largest grocery retailer, in the UK and China.

Structural equation modelling is used to test a conceptual model based on the theory of perceived risk and the core elements of Hofstede's cultural dimensions.

The results show both similarities and differences in the two countries in the propensity of shoppers to purchase private label products, with cultural factors having a significant impact on their perceived risk.

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CHAPTER ONE

INTRODUCTION

1.0 An Overview

The globalization of markets and international competition is forcing firms to operate in a multicultural environment (Luna and Gupta 2001). Over the last decade the major supermarket chains have pursued a strategy of international expansion, to maintain growth, with mixed results. The use of private label strategies, so successful in certain countries and for certain supermarket chains, in the process of internationalization, has attracted considerable interest (Corstjens and Lal 2000; Wulf, Odekerken-Schroder et al. 2005), little research has been undertaken to establish the transferability of private labels from one country/culture to another and consumer acceptance thereof. This thesis aims to contribute towards filling this gap in our understanding of the role and acceptability of private label products in different cultural contexts.

The thesis comprises eight chapters. Chapter two provides a broad overview of the international grocery industry, the development of private label strategies and the growing share of private label products within the supermarket sector.

Chapter three comprises a review of the literature associated with private label strategies, in the context of grocery retailing which includes food and other household essentials, and perceived risk, in the context of consumer behavior.

Private label (also referred to as own brands, store brands or house brands), has been viewed as playing a significant role in market expansion for international retailers during the last decade and it is predicted that private labels will continue to play an important role in international retailing as retailers become more sophisticated as marketers and continue to expand into new markets (Baltas and Argouslidis, 2007).

However, some researchers argue that the private label concept is culture-bound, and is still a Western, individualistic phenomenon, because

brands generally are positioned as unique personalities (De Mooij 2004). Moreover, while several researchers have noted that the propensity to purchase private label products is more category specific than consumer specific (Sethuraman 1992; Sayman and Raju 2004), other researchers argue perceived quality and perceived risk are the most important drivers of private label sales (Hoch and Banerji. 1993; Mieres, Martin et al. 2006).

A report by AC Nielsen (2001) establishes a correlation between the market share (in value) of private labels in 21 countries and two of Hofstede's cultural dimensions - individualism and a short-term orientation. The report concludes that collectivistic cultures prefer national or global brands to private labels because national brands have added value that helps demonstrate one's social status.

Thus, the literature review presented in Chapter Three incorporates the literature on culture and consumer behavior, recognising that cultural values are central to understanding consumer behaviors (Carman 1978; Munson and McIntyre 1979).

A conceptual framework of the propensity to purchase private label products, combining cultural values with perceived risk is derived from the literature review and presented in Chapter Four.

The cross-cultural research methodology adopted for the comparative analysis between China and the UK is described and justified in Chapter Five.

For the purpose of comparison between markets with different cultural identities and at different stages of market development primary data was collected from supermarket shoppers in the UK and China. The UK has a well established supermarket sector in which private labels account for a substantial market share and the development of private label strategies is highly sophisticated. In contrast, the growth of supermarkets in China remains embryonic and the role of private label remains unclear. So, these

two culturally diverse countries provide a rich and highly relevant basis for comparison.

The results of the exploratory factor analysis, to validate the measurement scales, are presented in Chapter Six. The results of the structural equation modelling (confirmatory factor analysis), to test the applicability of the conceptual framework in the two different countries, are presented in chapter seven.

The thesis concludes with a summary of the key findings and limitations, implications for practitioners and recommendations for further research.

1.1 Research Objectives

The aim of this research is to establish a valid model for the cross-cultural analysis of the propensity of supermarket shoppers to purchase private label products and the interaction between cultural dimensions and other factors (perceived risks) that influence supermarket shoppers' purchasing behavior.

The thesis builds on previous research, adapting Hofstede's five cultural dimensions to the context of supermarket purchasing behavior and exploring their relationship with the five dimensions of perceived risk developed by (Jacoby and Kaplan 1972; Peter and Ryan 1976).

It is important to emphasise that this research is concerned exclusively with supermarket purchasing behavior and not purchasing behavior in general. The supermarket context is critical, as the behavior of shoppers in a supermarket environment is likely to be very different from that in other retail environments.

CHAPTER TWO

INTERNATIONAL RETAILING

AND

THE DEVELOPMENT OF PRIVATE LABEL

2.0 Introduction

Like many industrial sectors the retail industry is becoming increasingly internationalized and exposed to global competition. In the context of grocery retailing, the domination of supermarkets is no longer a western phenomenon, as most of the major supermarkets have been pursuing expansive market development strategies in emerging markets the world over (O'Connor, 1997). The expansion of supermarket chains has been accompanied by a rapid growth in the market share of private label products and an associated development of private label strategies, beyond the basic discount lines to include premium and exclusive lines (AC Nielson, 2005)

However, supermarkets are not immune to the pressure emanating from the global financial crisis and the use of private label is seen as a key element in the battle for market share (Berg & Queck, 2010). Thus, the interest in the private label strategies of the world's major supermarkets is growing, yet research into the impact of private label growth on retail sales and profitability is lacking (Grewal and Levy 2007).

In this chapter a brief overview of global retailing is followed by a description of Tesco – the world's third largest grocery retailer and the focus for the comparative analysis undertaken in this study – their growth and the development of their own label strategy. The chapter concludes with a summary of consumer perspectives on the development of private label and its impact on food purchasing behavior.

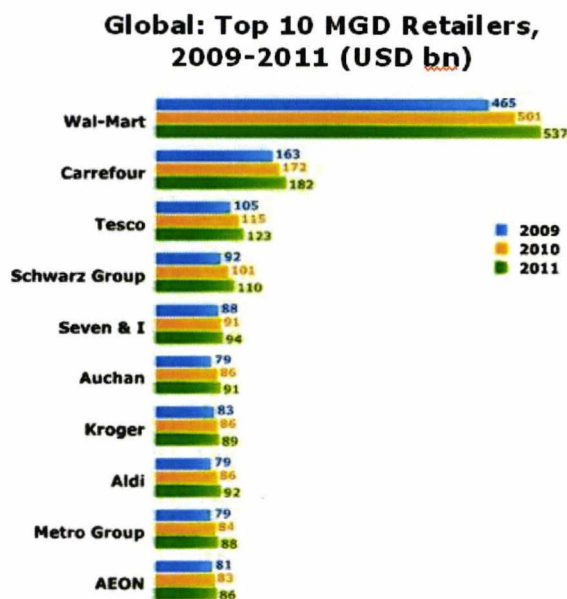
2.1 An Overview of International Grocery Retailing

International retailing consists of the management of merchandising and operating activities across national boundaries in order to satisfy the particular needs of various foreign and/or domestic markets (Lewison 1982). In recent years, interest in international retailing has grown considerably as retailers' activities have become increasingly international.

The US has been viewed as a source of retail innovation throughout the twentieth century and the origin of international retailing as a concept (Alexander 1997). However, in the last decade, European retailers have invested heavily in international market development initiatives, to maintain business growth against a background of domestic market saturation. As part of this process China has emerged as a major market for development, with strong population growth, rising incomes and an immature supermarket sector dominated by domestic players.

Wal-Mart remains the world's largest grocery retailer, followed by two European giants – Carrefour and Tesco (Figure 2.1). Apart from their home markets, each of these retailers is dominating the different regional markets across the world. Wal-Mart's main foreign markets are the UK, Canada and other Northern American countries such as Mexico. Carrefour is concentrating on Western Europe while Tesco's international expansion is focusing on Ireland, Korea and Eastern Europe. However, one target market that is common to them all is China – home to 20 percent of the world's population and ripe for retail development.

Figure 2 1 Global Top 10 Modern Grocery Distribution (MGD) Retailers 2009-2011 forecast (USD bn)



Source. www.planetretail.net (retrieved on June 2010)

2.3 Grocery Retailing in the UK

Retailing in the UK is regarded as sophisticated and well-developed in comparison with China. Moreover, the UK grocery market is highly concentrated (the top five supermarket chains account for over 60% of retail sales) resulting in fierce competition for market share and an increasing reliance on aggressive price competition supported by elaborate private label strategies (AC Nielson, 2005).

2.3.1 Retail Sales

In comparison to China, British grocery sale counts for less than 50% of total retail sales. Especially during the economic down-turn, grocery sales only counts for one third of whole retail sales. As one of the most developed countries, consumers spend more on non-grocery product rather than grocery product. Both total retail sales and grocery sales grew more than 12% from 2006 to 2007. However, they have been constrained by the global economic downturn since 2008. In 2010, all four indicators – retail sales, retail sales per capita, grocery retail sales and grocery retail sale per capital have reached the lowest points of the last five years. Economic recovery is still likely to be fragile in the near future (Table 2.1).

Table 2 1 Britain's Retail Market Sizes

	2006	2007	2008	2009	2010
Retail Sales, net (USD mn)	469,864	529,559	503,198	426,172	426,001
Retail Sales, net/capita (USD)	7,755	8,685	8,199	6,896	6,846
Grocery Retail Sales, net (USD mn)	210,172	236,371	223,828	189,632	188,904
Grocery Retail Sales, net/capita (USD)	3,469	3,877	3,647	3,069	3,036

Source. www.planetretail.net (retrieved date: June 2010)

2.2.2 Market Share of Grocery Retailers

In contrast with the Chinese market, the UK grocery market is dominated by a few main players. The top five retailers own over half of the market share (Table 2.2), with, Tesco accounting for over 20%.The second

largest chain, Sainsbury, positions itself between Tesco with respect to price competitiveness and Waitrose in terms of quality. Although, the British retail grocery industry has a relatively long history of internationalization (O'Connor 1997; Crawford 1998), Sainsbury's strategic focus remains largely domestic, after having failed with its entry into the US market in the 1990s (Wrigley, 2000).

Table 2.2 Top 5 Retailers in the UK (June 2010, US Dollar)

Company	No of outlets	Sales area (sq.m.)	Average sales area (sq.m.)	Banner sales 2010 (USD mm)	Market share (%)
Tesco	2,753	3,448,357	1,253	70,913	20.7
Sainsbury	961	1,900,183	1,977	34,252	10.0
Walmart	383	1,567,646	4,093	32,227	9.4
Morrisons	437	1,182,707	2,706	26,362	7.7
Co-operative Group	5,428	1,507,531	278	25,241	7.4
Sub Total	10,753	9,606,424		44,140	55.2
Other				1,065,051	44.8
Total				1,109,191	100.0

Source: www.planetretail.net (retrieved date: June 2010)

2.2.3 Consumer Spending

The total value of consumer expenditure grew by 27.7 percent through the 1990s in the UK (McGoldrick 2002). The growth continued until 2008 and declined due to the global economic recession (Table 2.3). Even before the recession, consumers' spending on basic products has not kept pace with the increase in gross domestic product and overall spending (McGoldrick 2002).

Table 2.3 Britain's Economic Indicators (Local Currency: British Pound)

	2006	2007	2008	2009	2010
Inhabitants (mn)	60.587	60.975	61.373	61.798	62.222
GDP (USD mn)	2,439,186	2,798,492	2,658,037	2,177,138	2,185,742
GDP / capita (USD)	40,259	45,896	43,310	35,230	35,128
GDP (% nominal growth)	5.7	5.5	3.5	-3.6	4
GDP (% real growth)	2.9	2.6	0.5	-4.9	1.3
Consumer price inflation (%)	2.3	2.3	3.6	2.2	2.7
Consumer spending (USD mn)	1,562,866	1,786,444	1,704,043	1,442,636	1,447,567
Consumer spending / capita (USD)	25,795	29,298	27,765	23,344	23,265

Source: www.planetretail.net (retrieved date: June 2010)

2.3 Grocery Retailing in China

China has the largest population in the world and it is also the largest grocery market in terms of grocery sales and consumer spending, with the fastest rate of growth in recent years (Berg & Queck, 2010). Thus, for the majority of grocery retailers, China represents a unique opportunity but also one in which there is increasing competition from both international and domestic retailers.

2.2.1 Retail Sales

From 2006 to 2010, retail sales have advanced strongly as the economy of China has prospered and disposable income has increased. Even in the period of recession, the growth in Chinese retail sales has remained steady although the proportion of grocery products has declined as consumer spending has shifted to non-grocery products such as luxury products. Both retail sales and retail sales per capita have doubled in the last five years. Grocery retail sales which includes both food and non-food product counts for more than half of retail sales in total (Table 2.4).

Table 2 4 China's Retail Market Sizes

	2006	2007	2008	2009	2010
Retail Sales, net (USD mn)	805,893	985,143	1,223,379	1,406,945	1,604,967
Retail Sales, net/capita (USD)	613	746	921	1,054	1,196
Grocery Retail Sales, net (USD mn)	509,606	614,059	753,483	856,573	965,139
Grocery Retail Sales, net/capita (USD)	388	465	567	642	719

Source. www.planetretail.net (retrieved date: June 2010)

2.3.2 Market Shares of Grocery Retailers

Although the competition from international grocery retailers has been intensive and the market share of China's domestic retailers' has been threatened, the Chinese grocery market is still dominated by the three largest domestic grocery retailers – China Resources Enterprise, Lianhua and Auchan. Wal-Mart is the fourth largest retailer in China with 0.6 percent

market share of Chinese retailing in 2010 (Table 2.5). It is also the largest international grocery retailer in China.

The second largest international grocery retailer in China is Carrefour, with a market share of 0.4 percent. Both of these two international retailers have been operating in China for more than a decade. Thus, effective relationships have been established with local government, and local suppliers, which has provided essential support for their market expansion. Tesco, the world third largest grocery retailer entered China over ten years after its main competitors and is ranked as the 18th largest grocery retailer in China

Overall, international grocery retailers control less than 2 percent of the Chinese retail market (Samiee, Yip et al. 2004). Thus, foreign competition in the retail sector in China is considered quite small, with the domestic market still dominated by domestic chains and independent stores.

Table 2 5 Top 5 Retailers in China (June 2010, US Dollar)

Company	No of outlets	Sales area (sq.m.)	Average sales area (sq.m.)	Banner sales 2010 (USD mm)	Market share (%)
China Resources Enterprise	4,440	5,097,050	1,148	11,764	1.1
Lianhua	5,398	3,730,000	691	9,648	0.9
Auchan	197	1,856,000	9,421	8,900	0.8
Walmart	317	4,606,408	14,531	6,943	0.6
Dalian Dashang	401	4,355,000	10,860	6,885	0.6
Sub Total	10,753	19,664,458		44,140	4.0
Other				1,065,051	96.0
Total				1,109,191	100.0

Source: www.planetretail.net (retrieved date: June 2010)

2.3.3 Consumer Spending

Economic growth has led to rising levels of consumer spending - per capita spending has more than doubled over the last decade (Table 2.3).

Spending growth has been rapid particularly in the major cities in the South and East. However, in these major cities (e.g. Beijing, Shanghai and Shenzhen) and second tier cities (e.g. Dalian, Shenyang and Qingdao), the growth in consumer wealth has been accompanied by a declining proportion of household expenditure on grocery products as the share of expenditure on education and housing has grown substantially.

Table 2 6 China's Economic Indicators

	2006	2007	2008	2009	2010
Inhabitants (mn)	1,314.48	1,321.29	1,328.02	1,334.74	1,341.414
GDP (USD mn)	2,655,053	3,377,955	4,287,694	4,712,438	5,463,720
GDP / capita (USD)	2,020	2,557	3,229	3,531	4,073
GDP (% nominal growth)	15.7	21.4	16	8	15.9
GDP (% real growth)	11.6	13	9.6	8.7	10
Consumer price inflation (%)	1.5	4.8	5.9	-0.7	3.1
Consumer spending (USD mn)	1,008,245	1,213,806	1,527,267	1,795,290	2,075,900
Consumer spending / capita (USD)	767	919	1,150	1,345	1,548

Source. www.planetretail.net (retrieved on June 2010)

2.4 An Overview of Private Label Strategy

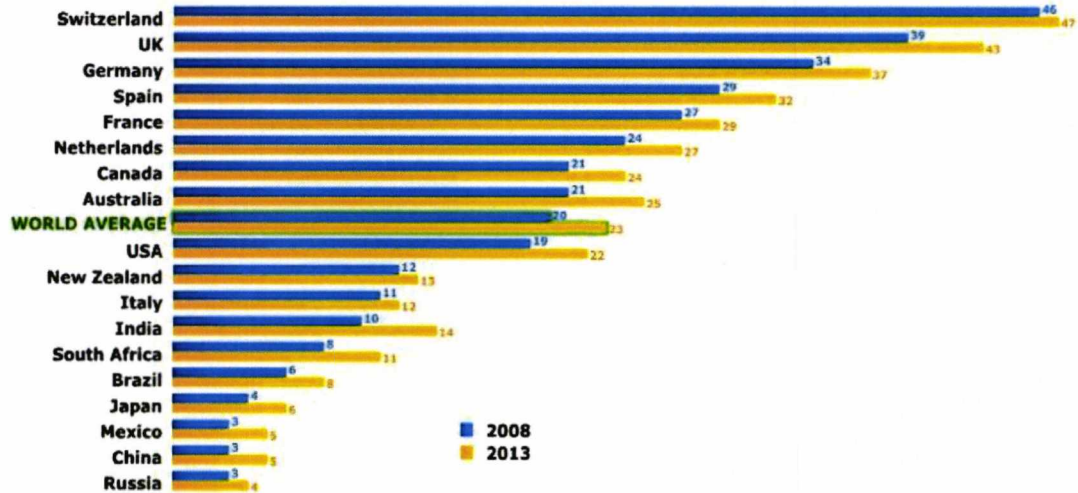
The current economic recession experience has drawn consumers' attention back to the role and value of private label products as perceived thirty years ago, as described by Rothe and Lamont (1973):

'.....private label has little competitive impact. It was not until the depression years that price appears to have lent enough competitive advantage for private labels to make a more substantial impact on the market' (Rothe and Lamont, 1973, pp.19).

According to Planet Retail (2010), private label benefited from a boost in 2008/2009 as consumers sought greater value and the growth of private label is expected to increase in all countries, with even stronger growth in emerging markets (Figure 2.2). In 2009, three top grocers – Wal-Mart, Carrefour and Tesco all launched new private label economy lines in order to combat the discounters – stores which sell products at price lower than other traditional retailers. The figure has also provided a forecast of private

label penetration in 2013. The growth of private label penetration will remain strong, significant in some countries (e.g. UK, India and South America) and steady in the others (e.g. Switzerland, France and China).

Figure 2.2 Global: Private Label Penetration, 2008 – 2013 forecast (% of MGD Sales)



Source: www.planetretail.net (retrieved date: June 2010)

Switzerland, UK and Germany are the top three markets with the highest penetration of private label products. In contrast, although Mexico and China have been viewed as new markets with great potential, private label penetration is still small and relatively under-developed.

Many managers have let operational effectiveness supplant strategy. This can be viewed particularly in grocery retailing where constraint improvement including own-label introductions, has often been seen as the route to superior profitability (Mitchell and Harris 2005)

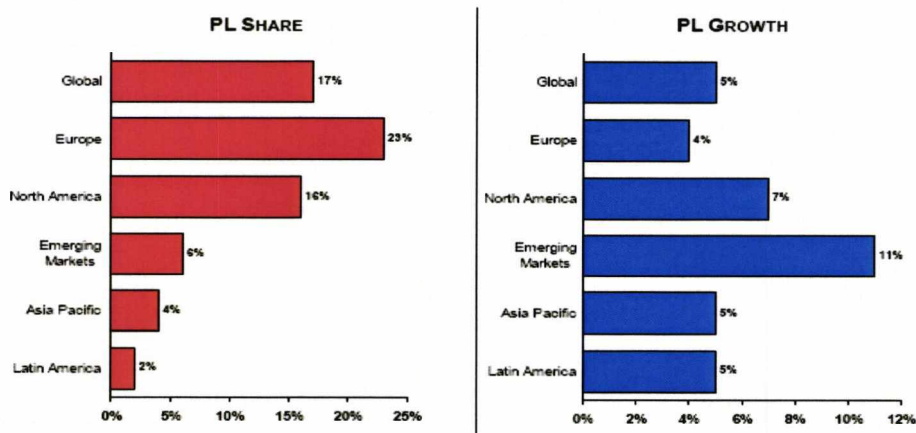
Thus, private label has become an important and growing component of supermarkets' strategy, to maintain and grow domestic market shares and support entry into new and emerging markets. Private label not only helps supermarkets to broaden the depth of products on offer and create differentiation from other retailers, it also allows them to fill strategic price gaps and increase profit margins.

Private Label in New Markets

AC Nielsen (2005) reports that private label sales across 38 countries and 80 categories accounted for 17 per cent of the value of sales over the 12 months ending the first quarter of 2005. In comparison to the previous year, private label sales grew by 5 per cent. Europe was still the most developed private label region with an aggregated private label share of sales value of 23% for the 17 European countries in the study.

The report shows that private label had larger marketing share in Europe and North America than the rest of the world. But the growth of private label appeared to be slower than the emerging markets such as East Europe. Although the share of private label in the emerging markets was still much lower than global average, it had the fastest growth from 2004 to 2005, up 11 per cent year on year (Figure 2.3).

Figure 2 3 Share and Growth Rates of Private Label by Region (Based on Value Sales)

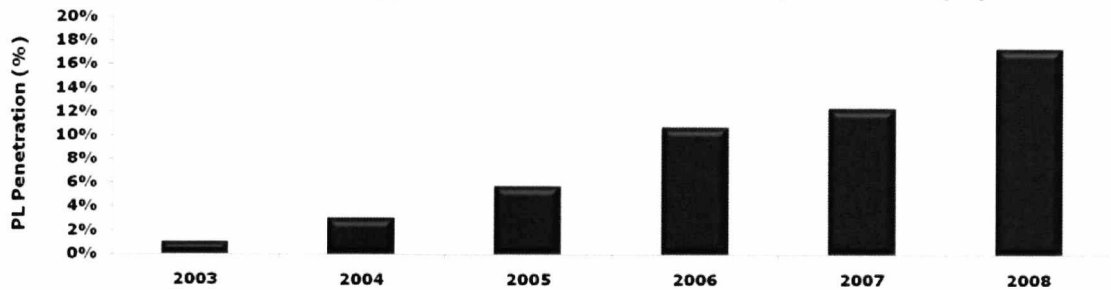


Source: AC Nieslen (2005)

In addition to emerging markets, private label share in new markets such as Asia and Latin America appeared to be lower than global average. Although, it has been viewed as a limitation of private label strategy, further growth rate is expected by the retailers as the growth of private label in these markets remained strong. South Korea is a great example of how

quickly private label can gain traction in a new market, with significant private label investment by local retailers (e.g. Lotte Shopping) spurred on by the presence of Tesco (Figure 2.4). South Korea has also become one of the few markets to offer all three tiers of Tesco's private label – Value, Standard and Finest (Berg and Queck 2010).

Figure 2 4 South Korea: Lotte Mart Private Label Penetration, 2003 – 2008 (%)

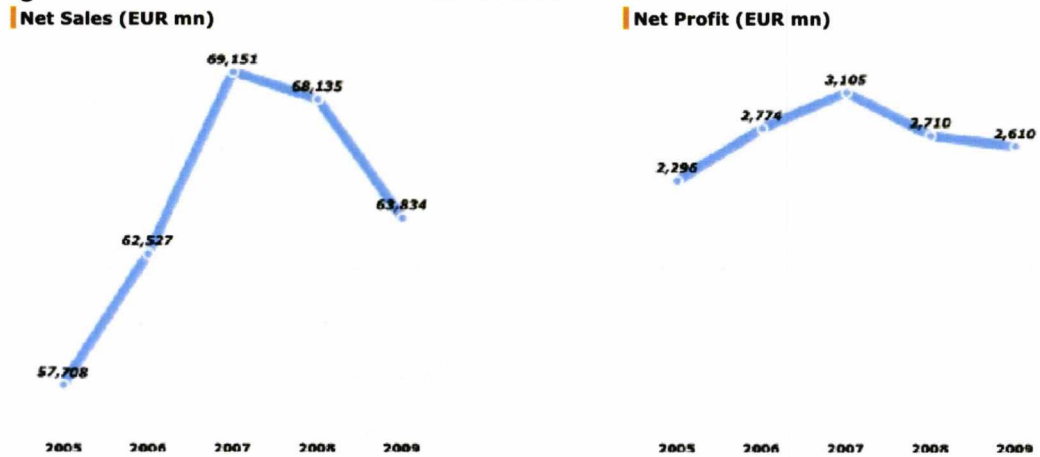


Source: Planet Retail Ltd (2010)

2.5 Tesco and Its Private Label Strategy

Tesco plc is a British international grocery and general merchandising retail chain which was founded by Jack Cohen in 1919. In 1924, Jack launched the first private label product – Tesco Tea. From 1995, Tesco started its international strategy and became the market-leading food retailer in Europe (e.g. UK and Ireland), East Europe (e.g. Poland and Czech Republic), and South East Asia (e.g. Thailand and South Korea). In 2004, Tesco entered China and continued its private label strategy (Tesco 2010). Although, the net sales of Tesco dropped significantly in 2008, net profits have remained stable (Figure 2.5).

Figure 2 5 Audited Accounts of Tesco 2005 - 2009



Source: Planet Retail Ltd (2010)

Tesco Private Labels

Tesco has been viewed as having the most sophisticated private label strategy in the world (Berg and Queck 2010). Three types of private labels have been launched across the world - standard, premium and economy covering both food and non-food categories.

One of the most popular Tesco's private label brands is 'Tesco Value' which was launched in 1993. The strategy is to match the lowest price products in the marketplace. Nowadays, Tesco value can be found in all the Tesco stores across the world and in most categories. In 1997, Tesco developed a premium priced offer – branded 'Finest' for food categories in the UK to compete with niche retailers, such as Marks & Spencer and Waitrose. It is being selectively introduced across international operations and can be found in the stores of Czech Republic, Ireland and South Korea. In addition, 'Standard' Tesco own label products are designed to be equal in quality and packaging to national brands but priced 10% lower (PlanetRetail 2010).

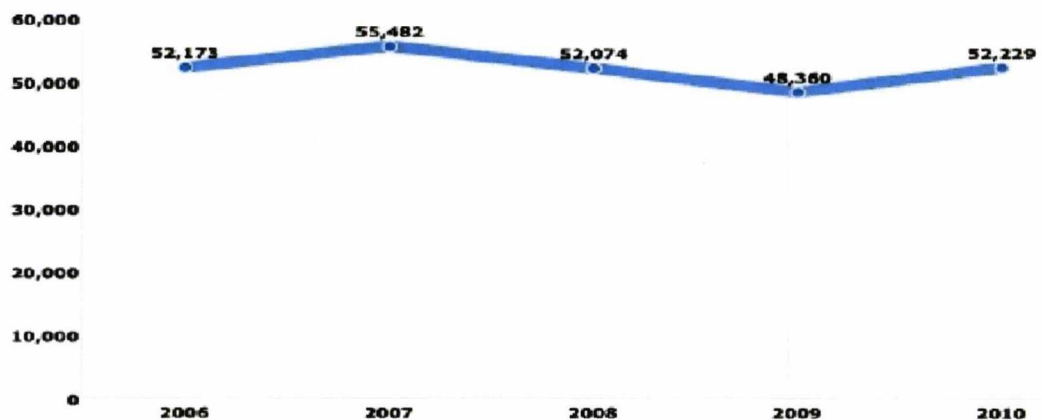
Tesco's international strategy of private labels is to first obtain the right product at the right price from local suppliers and then, once a good relationship has been established with suppliers, to develop own label lines

to fill strategic price gaps and build brand recognition in store. Today, private label accounts for about 50% of sales in the UK but a much smaller proportion in its overseas market (PlanetRetail 2010).

2.6 Tesco in the UK

Tesco is the UK's leading grocery retailer with a 20% market share of whole retail sale. 449 new stores opened during the global recession from 2008 to 2010. After experiencing a banner sale downturn from 2007 to 2009, a 7% sale growth has re-established market confidence (Figure 2.6).

Figure 2.6 Banner Sales in the UK, 2006-2010 (EUR mn)



Source: Planet Retail Ltd (2010)

Tesco's Private Label in the UK

Tesco's global private label strategy is generated from its domestic market, then modified and extended into its international markets. The modern private label strategy gives Tesco flexibility to develop different markets and build competitive strength under different (and often difficult) economic conditions. The range of private labels covers over 12,000 product lines from economy 'Tesco Value' lines, to the standard 'Tesco' range and premium-priced 'Tesco Finest' options. Together private labels accounts for around 50% of Tesco's UK sales.

In the second half of 2008, Tesco's private label strategy in UK became more aggressive, launching a new range of discount products

under Tesco's own 'Discount Brand'. The new Discount Brand is designed to offer better quality than Tesco Value and cheaper prices than other national brands (Tesco 2010). This strategy was a direct response to the growing concerns of shoppers during the economic recession and has contributed largely to the increase in sales in 2009. So far, over 70 types of Tesco's private labels have been launched in the UK across all the categories and stores.

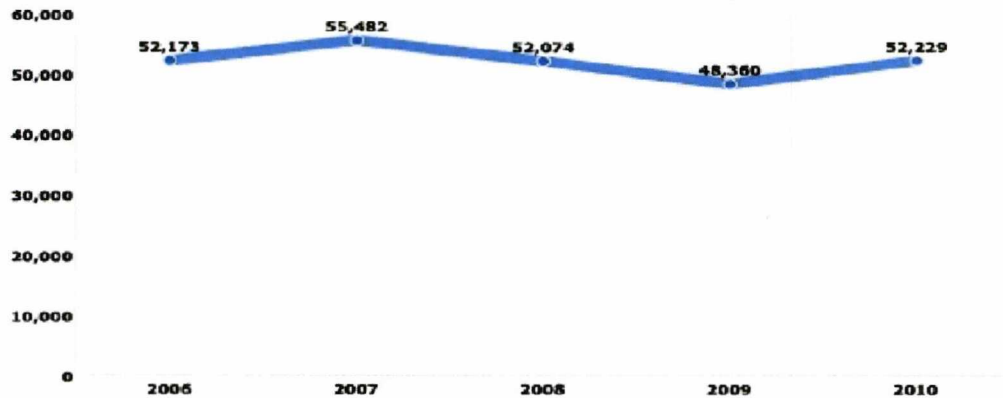
2.7 Tesco in China

Although modern formats of retailing such as hypermarkets are growing, especially in major urban areas, China's retail sector is still highly fragmented with a large number of small, family-owned distributors. However, a number of major players have emerged since the 1990s, both international (e.g. Carrefour) and domestic (e.g. Lianhua).

Tesco operates in China in a format of joint venture with Ting Hsin which owns the Hymall chain of stores in China. In December 2006, Tesco increased its stake in Ting Hsin from 50% to 90% (Tesco 2010). As one of the fastest growing and biggest retail markets in the world, China is viewed as having the potential to become Tesco's largest retail market.

Tesco entered the Chinese retail market nearly ten years later than its strongest competitors – Carrefour and Wal-Mart. However, within five years it has become the third largest international retailer in China. The number of stores has doubled from 2006 to 2010, but the growth of banner Sales has declined during the global recession (Figure 2.7).

Figure 2 7 Banner Sales in China, 2006 – 2010 (EUR mn)



Source: Planet Retail Ltd (2010)

Tesco's Private Label in China

Although some other major retailers (both domestic and international) have launched their private label product line in China, none of them has taken it forward as a major marketing strategy, to the same extent as Tesco. Since introducing its economy own label – ‘Tesco Value’ - in September 2006, Tesco has launched ten private label brands (positioned as ‘standard’ and ‘economy’) and across eight product categories.

In addition to popular ‘Tesco Value’ and standardized ‘Tesco’, nutritional labels were introduced by Tesco in March 2008 (Tesco 2010), which could be viewed as the first step of introducing Tesco’s premium product line to China’s market. It has been viewed as an opportunity for Tesco to build its own worldwide supply chain which will increase efficiency and support greater private label development in the future.

2.8 Summary

A major cornerstone of retail marketing has been the development of the retailer’s name as a brand, rather than simply a name over the shop (McGoldrick 2002). The global recession brought the concept of ‘private label’ to the forefront of retail managers’ and retail researchers’ attention as a mechanism for maintaining market share and profit growth in an

extremely difficult trading environment.

However, whilst private labels are well established and have been widely studied in the context of developed markets, where supermarkets are fighting for market share rather than stimulating market growth, they are less well-known and have received much less attention by researchers in developing countries, where the penetration of private label products remain low but their potential for growth is substantial (Berg & Queck, 2010).

Researchers point out that as the retail sector is internationalised, retailers transcend geographical borders and new markets attract a great deal of attention (Rugman and Girod 2003). Furthermore, according to Martenson (2007), cross-sectional, cross-cultural studies are necessary to establish the role of private label products in the development of emerging markets where the concept remains untried and untested. Thus, the study of private label and its role in developed and developing markets with distinct cultural differences is timely and justified, given the lack of cross-cultural research in this area hitherto.

CHAPTER THREE

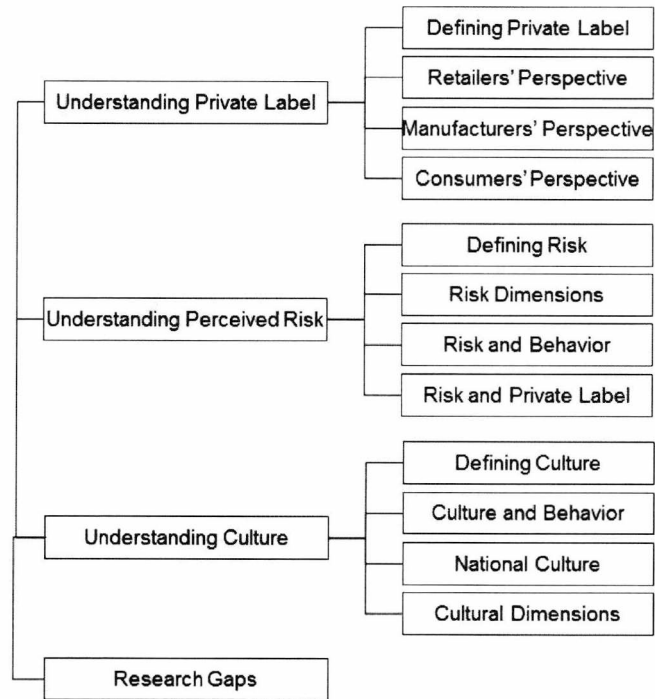
**A REVIEW OF THE LITERATURE ON
PRIVATE LABEL, PERCEIVED RISK AND
DIMENSIONS OF CULTURE**

3.0 Introduction

Previous chapters have studied the background of international grocery retailing and recent development of private labels across nations. The objective of this chapter is to review the existing literature relating to private labels of grocery retailing, perceived risk and cultural dimensions. The aim of the review is to identify research gaps, in order to justify the research undertaken and generate research hypotheses that will be formally tested through primary data analysis.

The first part of the review focuses on the role of private labels from three perspectives – retailers, manufacturers and consumers. The second section focuses on the role of perceived risk in consumer behavior research and the segmentation of perceived risk in previous studies. The third section presents a contextual definition of culture, explores cross-national cultural differences, examines how cultural factors have been examined in previous international marketing studies and summarises the development of cultural theory. In the final section, research gaps are highlighted as a justification for the conceptual framework presented in chapter four. The outline of this chapter is given in Figure 3.1.

Figure 3 1 Outline of Literature Review



3.1 Understanding Private Label

The rise of Private Label products (those owned, sold and distributed by retailers) is one of the most striking retail success stories of the last decade. Private Label has been growing at twice the rate of famous brands over the last ten years and the Private Label industry is worth an estimated US\$1 trillion (Lincoln and Thomassen 2008, pp.i)

3.1.1 Defining Private Label

The concept of the 'private label' first appeared in the 1920s with little competitive impact initially in the retail sector. The relevance of private labels increased during the 'great depression' of the 1930s when price became of paramount importance, but its market penetration declined due to the reduction of production capacity during World War II. When the war came to the end, private label again achieved increased market penetration and grew at a rapid rate because of the strong demand for

various brands other than national brands (Rothe and Lamont 1973). Academic research into private labels did not begin until the 1960s (Myers 1967; Rao 1969).

Schutte (1969) defined private label as “products owned and branded by organizations whose primary economic commitment is distribution rather than production.” In other words, private labels are ‘owned and branded by retailers, generate higher margins, increase control over shelf space, and give retailers greater bargaining power in the channel of distribution’ (Jin and Suh 2005). They are also called store brands or house brands in the United States, own label brand or own brands in the UK, and home brands in Australia (Binninger 2008). Table 3.1 summarizes the names of supermarket own brands and the names of manufacturing brands in comparison.

Table 3 1 Commonly Used Names of Manufacturing Brand and Supermarket Brand (Bailey 1999)

Manufacturing Brand	Supermarket Brand
national brand	store brand
premium brand	house brand
well-known brand	private brand
advertised brand	ghost brand
name brand	own label
popular brand	controlled brand

(* The names sometimes can be mismatched in the literature, also brand and label are interchangeable.)

Private labels are produced by retailers themselves, or according to their instructions, and are sold under their name or label in their own shops (Baltas 1997). There are three different types of private labels according to their different strategic orientation:

- The classic private label is positioned similarly or slightly below smaller manufacturer brands on price. On average, they are between 10 and 30 percent cheaper than leading national brands (Baltas 1997).

- The generic private label emphasizes the basic use of a product. A plain packaging design, limited advertising activities and cuts in quality yield; a positioning which is still based on the lowest price tier (Harris and Strang 1985; Yelkur 2000).
- Premium private labels are positioned like leading national brands and priced accordingly (Richardson, Dick et al. 1994; Hoch 1996; Davies 1998).

Moreover, Rothe and Lamont (1973, pp. 19) have given a paired definition of 'private label' and 'national brand' – private label is generally defined as 'one sponsored or owned by a company whose primary business is distribution and/or selling the given product line'; in contrast, 'national brand is generally defined as one sponsored or owned by a company whose primary business is production of the given product line'

However, Yang (2008) indicates that the 'national brand' can only be viewed as one type of manufacturing brand which is distributed nationally. Apart from national brands, manufacturing brands also include 'regional brand' and 'unknown brand'. Regional brand is also distributed by manufacturers, but only in one or some areas of the nation. Unknown brands are those least well-known brands which have very little impact in retail markets. In this research, the manufacturing brand which is compared to private labels will be the national brands.

In addition, in some of the previous research, the differences between generic brand and private label were not well clarified (Belizzi, Kruckeberg et al. 1981; Cunningham, Hardy et al. 1982; Dunn, Murphy et al. 1986; Yang 2008). Some studies separate generic brands from private label while other studies view generic brands as a type of private label.

The concept of generic brand originated in France. In 1976, Carrefour launched fifty grocery products under a generic brand name. Generic brands reduce or eliminate traditional marketing frills, such as packaging and advertising, and offer the product at a substantially lower price without

affecting the functional/nutritional qualities of the product (Cunningham, Hardy et al. 1982).

More recent studies view private labels as a whole (rather than separating generic brand from private labels) and compare its characteristics to national brands only (Mieres, Martin et al. 2005; Choi and Coughlan 2006; Cheng, Chen et al. 2007).

3.1.2 Private Labels – a Retailers' Perspective

Lincoln and Thomassen (2008) identified three major participants in the private label arena, on a global basis: 1) the retailer who develops and sells private labels; 2) the manufacturer who often manufactures competing brands, 3) the shopper who ultimately buys the products and thus determines their viability. Here, we will first look at the role of private label from a retailer's perspective.

Private labels require the retailers to take full responsibility for product introduction, product sourcing, warehousing, advertising and promotions in product development (Dhar and Hoch 1997). The entry of private labels changes the retailer-national brand manufacturer interaction from one of co-operation to one of competition for consumer dollars (Pauwels and Srinivasan 2004). This new competitive environment may induce new strategies such as price promotion and store performance (Walters and Rinne 1986). The literature associated with private label strategy from a retailer's perspective mainly focuses on three aspects listed below:

Private Label Enhances Store Loyalty

Some of the earliest research into private label studied consumer loyalty towards private label in general, but not private label of one particular retailer (Richardson 1997). Retailers expect increased store loyalty (Corstjens and Lal 2000) and to become less dependent on the national brand manufacturers by using private labels (Mills 1995;

Narasimhan and Wilcox 1998). Most of the studies toward private labels believe that private labels can help retailers enhance their store loyalty.

At the very beginning of private label research, Cunningham (1961) discovered that private label loyalty is positively related to store loyalty in thirteen out of sixteen product categories. Richardson et al (1996) emphasized that private labels can help retailers increase store traffic and customer loyalty by offering exclusive own brand lines which cannot be found in other stores.

The Private Label Manufacturers Association (PLMA) (2010) states that retailers can use private labels to increase their business as well as to win consumer loyalty by differentiating themselves from the competition. It can enhance the image of retailers and help them build a strong relationship with consumers. This statement has also been supported by other studies (Corstjens and Lal 2000; Ailawadi, Neslin et al. 2001; Sudhir and Talukdar 2004; Kumar and Steenkamp 2007). Moreover, one recent study discovered that the share of private label significantly affects all three measures of behavior loyalty – share of wallet, share of item purchased and share of shopping trips (Ailawadi, Pauwels et al. 2008).

However, some studies argue that private label entry does not have a significant effect on store traffic and store revenue for any category (Walters and MacKenzie 1988; Pauwels and Srinivasan 2004). In other words, these category benefits are insufficient to significantly increase traffic building or revenues at the store level.

Private Label Maximizes Retailers' Profitability

Whereas national brand manufacturers position their product to maximize profits from their own products, the retailer focuses on maximizing profit from the entire product category (Sayman and Raju 2004). Kumar and Steenkamp (2007) categorized four sources from which retailers can generate higher profits: better profit margin, greater leverage,

building store loyalty and higher customer profitability.

Except for high-end luxury products, private labels tend to be more profitable for retailers because they cut out the middleman (Field 2006). This usually leads to higher unit margins and allows the retailer to cover the “low-price” tier within the range of goods (Pauwels and Srinivasan. 2004). Also, retailers may introduce a private label to exploit untapped segments or steal value-conscious consumers away from the national brands (Connor and Peterson 1992).

On the other hand, Ailawadi and Harlam (2004) suggest retailers retain a balance between private labels and national brands to attract and retain the most profitable customers. The reason is that in some cases the profit margin per unit from private labels is actually smaller than that from national brands, because private labels command a much lower retail price (Ailawadi and Harlam 2004).

Private Label Can Strengthen Their Bargaining Position

In comparison to national brands, private brands offer retailers a competitive edge to negotiate better deals from manufacturers in the form of lower wholesale prices (Hoch and Banerji. 1993; Mills 1995; Narasimhan and Wilcox 1998). Generally speaking, the channel power of the retailer is believed to increase as a result of private label entry, which changes the nature of the manufacturer retailer interaction (Hoch and Banerji. 1993; Raju, Sethuraman et al. 1995; Hoch 1996).

Retailers can also strategically position private labels in certain spaces while organizing store layout to strengthen their bargaining position when negotiating supply terms with manufacturers of national brands (Pauwels and Srinivasan 2004).

Studies associated with private labels from a retailer’s perspective also include; understanding category differences of private label market share

(Raju and Dhar 1995; Sayman and Raju 2004; Rubio and Yague 2009), price effects on private label development (Ward, Shimshack et al. 2002; Bontemps, Orozco et al. 2005); private label strategy (positioning) and performance (Raju, Sethuraman et al. 1995; Sayman, Hoch et al. 2002; Davies and Brito 2004; Choi and Coughlan 2006), and private label promotion (Blattberg and Wisniewski 1989; Sethuraman and Mittelstaedt 1992; Narasimhan, Neslin et al. 1996; Kim and Parker 1999). These studies will not be discussed in detail as the purpose of this study is to understand private label product from a consumer's perspective.

3.1.3 Private Labels – a Manufacturers' Perspective

Kumar and Steenkamp (2007) have provided a few suggestions towards private label strategy to help both retailers and manufacturers meet the private label challenge. The term 'manufacturer' in their book includes manufacturer of private labels and manufacturer of national brands.

Private label manufacturing has been seen as a marginally costed activity undertaken mainly by suppliers of national brands or by small companies who lack the power to establish a brand franchise (Davies and Brito 2004). There are two types of strategy which they can adopt to compete with national brands: (1) the 'dual strategy' model, where the manufacturer produces both its own brands and private labels for retailers, and (2) the 'dedicated private label manufacturer' strategy, where the manufacturer concentrates exclusively on producing private label for retailers (Kumar and Steenkamp 2007).

In addition, some brands retailers can also improve their competitive strength by new product development strategy – once a successful brand is launched, it can be adopted as big retailers' own brand in order to save marketing cost and survive in intensive marketing competition from other national manufacturers.

For the manufacturers of national brands, the competition from private labels has always been a challenge. On the one hand, the national brands have significant advantages over private labels such as product variety and advertising (Hoch and Banerji. 1993). Private label manufacturers find it hard to mimic propriety technology in a timely manner while the national brands manufacturers adopt sophisticated new product developmental procedures to stay ahead. Advertising may also raise entry barriers for private label manufacturers (Farris and Albion 1980). As with product innovation, retailers find it difficult to match the advertising levels of manufacturers. Moreover, promotion of national brands can impact on the willingness of consumers to buy private labels.

On the other hand, the entry of private labels can also reduce a manufacturer's market share and profit. Consumers are typically willing to pay more for national brands than for private labels based on perceived quality difference (Mills 1995; Raju, Sethuraman et al. 1995; Narasimhan and Wilcox 1998). In terms of the price, private label entry can result in a price war at the lower end of the market which may prevent national brands from attracting price conscious consumers (Pauwels and Srinivasan 2004).

Therefore, according to the review above, manufacturers must pay serious attention to private labels and establish efficient marketing strategies to compete. There must be a compelling value position for consumers to buy the manufacturer brand instead of the private label (Kumar and Steenkamp 2007).

3.1.4 Private Labels – Consumer's Perspective

Since the late 1960s, research on private labels has been of substantial interest to both marketing academics and marketing managers. Baltas and Argouslidis (2007) summarized four well-defined areas of private label research:

- The strategic role of private labels for retailers and manufacturers (Makoto 1995; Dhar and Hoch 1997; Burt 2000; Horowitz 2000);
- Market performance of private labels (Ailawadi, Neslin et al. 2001; Erdem, Zhao et al. 2004);
- Differences and competition between national and store brands (Richardson, Dick et al. 1994; Baltas 1997; Aggarwal and Cha 1998);
- Factors influencing the propensity to buy private labels (which will be explored in this study)

Propensity to Purchase Private Label

Rao (1969) first proposed the question – ‘are some consumers more prone to purchasing private brands?’ His study towards private label propensity was based on the loyalty of housewives in food purchasing towards stores and brands. The level of price consciousness has been identified as the main factor which influences propensity to buy private labels.

Since the 1990s, researchers have introduced more psychological and behavioral factors to evaluate the propensity to buy private label in addition to socio-demographical segmentations (Dick, Jain et al. 1995; Baltas 1997), such as extrinsic and intrinsic cue effects (Richardson, Dick et al. 1994; Yang 2008), perceived value for money, intolerance of ambiguity, (Richardson, Jain et al. 1996), innovativeness (Jin and Suh 2005) and enjoyment (Shannon and Mandhachitara 2005). Also, category differences (e.g. category involvement) have been recognized while evaluating private label propensity (Baltas 1997; Batra and Sinha 2000; Pauwels and Srinivasan 2004; Gamliel and Herstein 2007; Kwon, Lee et al. 2008).

Yang (2008) and Richardson et al (1994) found that extrinsic cues explain a greater share of the variance in perceived quality of private labels than intrinsic cues - the less the reliance on extrinsic cues for perceived quality, the greater the propensity to purchase private labels.

Richardson et al (1996) concluded that high perceived risk results in poor value for money perception and ultimately decreases the propensity to buy private labels. Also, greater intolerance of ambiguity results in less favourable perceived value of money, therefore these consumers will be less willing to purchase private labels.

Jin and Suh (2005) studied private label purchase intention in Korean discount stores and discovered that consumer innovativeness¹ impacts positively on both attitude and purchase intention towards private labels. A cross-cultural study by Shannon and Mandhachitara (2005) found that shopping enjoyment does not have significant influence on the propensity to purchase private labels across several countries.

In the last decade, whilst the specific category remains an important moderator of private label propensity, the emphasis has shifted towards the impact of culture and perceived risk (Shannon and Mandhachitara 2005; Mieres, Martin et al. 2006).

Defining Private Label Buyers

There have been extensive efforts to identify market segments who are more or less likely to purchase private label products. Thus, for example, Burger & Scott (1972) identified specific market segments such as the deal prone consumer, the heavy user, new brand buyer, and the private brand buyers who represent large areas of economic and marketing effort in the real world.

Since the 1960s, when marketing researchers first entered the field of private labels, they have been trying to define private label buyers based on different criteria. Many studies have tried to explore the influence of demographic factors (e.g. age, gender, and education) on private label purchasing behavior.

¹ Diffusion of Innovation Theory (Rogers, 1962): a theory of how, why, and at what rate new ideas and technology spread through cultures.

Some early studies discovered that there is no segmentation of the consumer market in their analysis of national and private label buyers (Frank and Boyd 1965; Myers 1967; Burger and Scott 1972). Baltas (1997) found that demographic factors do not have significant influence on private label propensity because of the diversification of private labels over time. A case study of consumer preference of private labels in Shanghai drew the same conclusion (Yunlian and Qingyun 2007). However, neither of these studies was conclusive as the samples upon which the empirical research was based were not fully representative.

More specifically, some studies have argued that private labels are more widely used by young consumers (Granzin and Schjelderup 1980; Cunningham, Hardy et al. 1982; Dick, Jain et al. 1995; Omar 1996) while others find no significant relationship between age and private label propensity (Richardson, Jain et al. 1996; Burton, Lichtenstein et al. 1998).

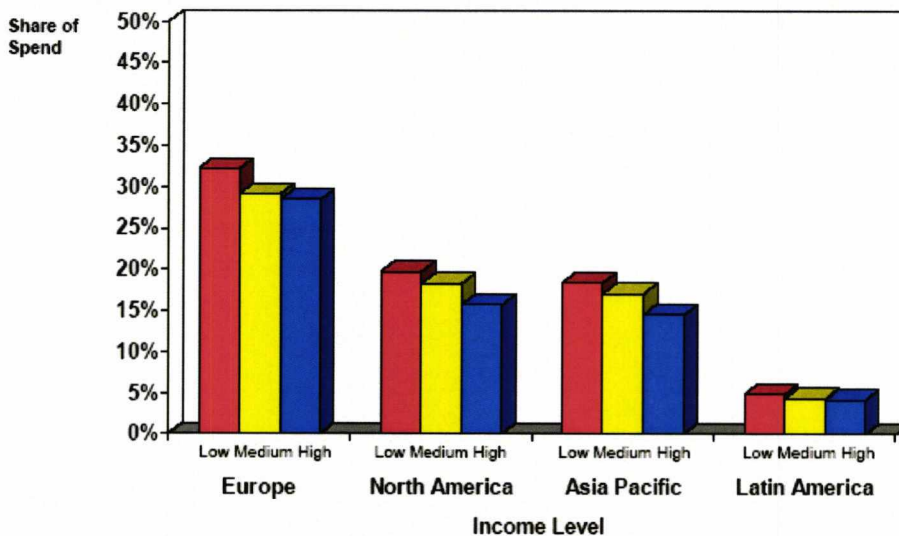
Also, although the influence of income on private label purchase behavior has been confirmed by many researchers (Belizzi, Kruckeberg et al. 1981; Burton, Lichtenstein et al. 1998; Batra and Sinha 2000), the results are contradictory. Some researchers have observed that higher income shoppers are more willing to purchase private labels (Coe 1971; Murphy 1978) while other researchers have reported that lower income is associated with greater interest in private labels (Strange, Harris et al. 1979; Richardson, Jain et al. 1996; Batra and Sinha 2000). It may be because private labels have achieved substantial levels of penetration in various income segments (Strange, Harris et al. 1979). In addition, some other studies have reported that the influence of income on private label propensity is not significant (Cunningham, Hardy et al. 1982).

The same contradiction occurs with education. Richardson et al (1996) observed the relationship between education and private label propensity as not being significant, whereas other studies reported private label buyers to be less educated than national brand buyers (Ailawadi, Neslin et

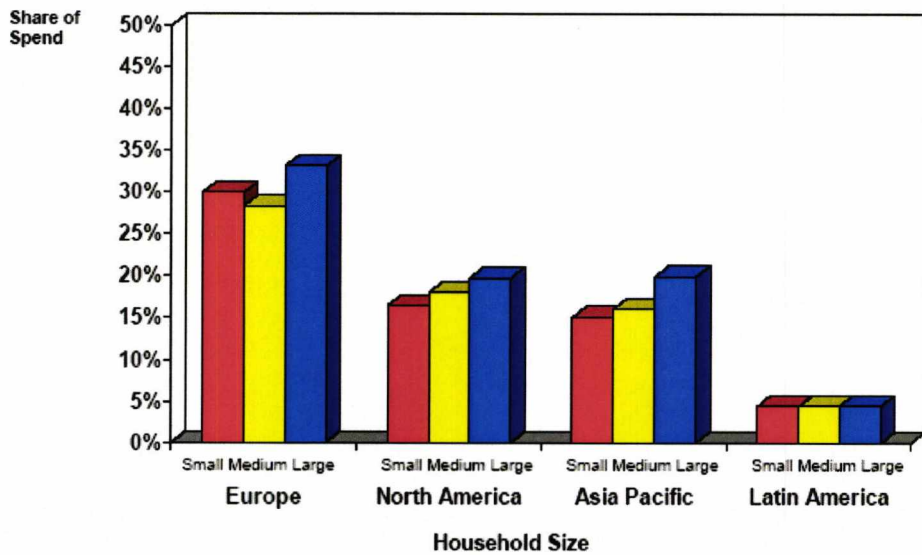
al. 2001) or sometimes better educated (Cunningham, Hardy et al. 1982). The influence of gender on private label propensity has been reported as insignificant as well (Burton, Lichtenstein et al. 1998). The only variable with consistent results in all the studies is household size – households with more people buy private labels more frequently (Dick, Jain et al. 1995; Omar 1996; Richardson, Jain et al. 1996).

Moreover, the report of ACNielsen (2005a) studied the relationship between private label share of spend and consumer segmentations (income level, household size and age of household) across continents. Although the private label market share is significantly different on each continent, the difference of private label share is not obvious across segmentations (see Figure 3.2, Figure 3.3 and Figure 3.4).

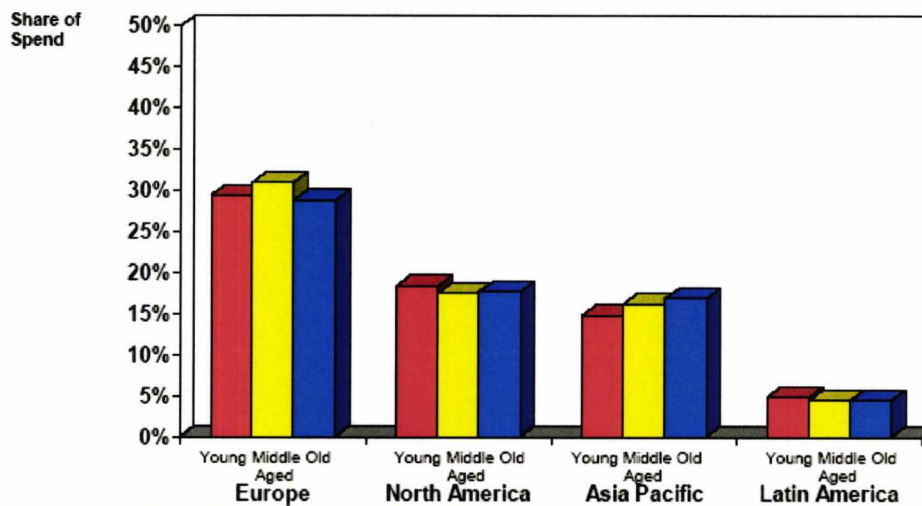
Figure 3 2 Private Label Share of Spend Segmented by Income Level



Source: ACNielsen (2005a)

Figure 3 3 Private Label Share of Spend Segmented By Household Size

Source: ACNielsen (2005a)

Figure 3 4 Private Label Share of Spend Segmented By Age of Household

Source: ACNielsen (2005a)

Although, the poor performance of individual demographic factors related to the role of consumer perception towards quality and price has been addressed by many studies (Szymanski and Busch 1987), some other researchers still believe the impact from these demographical factors does exist. For example, Baltas (2001) believes social status is an important characteristic of private label buyers. Consumers with higher social status who shop more frequently are more likely to be loyal private label consumers. Some other researchers have also found older, male and

middle and low income consumers are more inclined to purchase private label products (Baltas and Argouslidis 2007).

Since the results of previous studies appear to be inconsistent, researchers have also indicated that psychological factors can explain private label propensity better than socio demographic characteristics (Martinez and Montaner 2007).

Price Consciousness

Price has been viewed as the indicator of quality and cost which has significant influence on consumers' preference of brand and product (Hansen, Singh et al. 2006). Both high price and low price can enhance consumers' willingness to purchase (Shiv, Ziv Carmon et al. 2005; Yang 2008). Price consciousness is defined as the 'degree to which the consumer focuses exclusively on paying low prices' (Lischtenstein, Ridgway et al. 1993).

Early studies of private label consumer behavior indicated that private label buyers are price-sensitive (Burger and Scott 1972; Rothe and Lamont 1973). The price of private labels has been viewed as the most important factor of competitive advantage compared with national brand (Veloutsou, Gioulistanis et al. 2004). Private brand sales increase as the price advantage compared to national brands grows (Hoch 1996). Retailers with higher price difference between national brands and private labels generally have higher market shares for private labels (Sanjay and Hoch 1997).

A special report on branding and private labels by Pollack Associates (2002) noted that retailers were increasing the number of private label offerings because of the economic conditions. With private labels being usually cheaper than national brands, the report indicated that consumers are looking to save some money at the grocery store to offset a tepid economy and soaring gas prices in recent years (PollackAssociates 2002).

However, as the development of private branding becomes more sophisticated, the importance of price is reduced. The relationship between price and willingness to buy is not inevitably monotonous and is influenced by contextual effects (Sheinin and Wagner 2003). Recently, retailers have begun to enhance the quality of their private labels in order to attract consumer segments other than price sensitive consumers.

For example, Veloutosou et al (2004) found that private labels have evolved from low-price/low-quality products to more competitively priced and better quality products, but price is still the core competitive advantage for private labels. Moreover, economists have argued that the private label market is, in essence, a price discrimination scheme. In particular, frequent buyers who could get more information about the composition of the market are less willing to pay higher prices for manufacturer brands (Wolinsky 1987; Soberman and Parker 2004).

Perceived Quality Difference

Consumers of private labels have been generally profiled as financially constrained, highly price conscious and not very quality conscious (Baltas 1997; Ailawadi, Neslin et al. 2001). Some researchers have stated that if the quality difference is perceived as small or within an acceptable range, these consumers may consider purchasing a lower quality brand for a price discount (Bronnenberg and Wathieu 1996; Sethuraman and Cole 1999).

However, neither the depth of the price discount nor promotion intensity is a significant factor in explaining market share. Instead, quality consciousness has deterred consumers from purchasing private brands because of the perceived quality difference in comparison with national brands (Myers 1967; Cunningham, Hardy et al. 1982). Therefore, it has been argued that for private label propensity, quality is more important than price (Sethuraman 1992; Hoch and Banerji. 1993; Burton, Lichtenstein et al. 1998).

Early studies reported that consumers perceived differences between national and private labels (Applebaum and Goldberg 1967). Some studies stated that the perceived quality of national brands is higher than that of private labels (Sanjoy and Oded 2001; Steiner 2004). Consumers opt to pay more for national brands because of higher perceived quality (Steenkamp and Dekimpe 1997). With regards to the quality positioning (type of private labels), researchers believe that the quality of national or manufacturer brands is always perceived as better compared to classic private labels (Beldona and Wysong 2007).

Interestingly, previous research reveals that around 70 percent of people who reported trying private labels rate the quality as comparable and over 44 percent rated savings as worth the trade-off (Burk 1979). Moreover, the result of Hoch and Banerji's (1993) study indicated that private labels do better in categories where product quality is high and variability is low. The use of private labels has often been shown to increase when the degree of quality variation is perceived as low (Batra and Sinha 2000).

Kumar and Steenkamp (2007, pp163) mention that *'while low-quality private label products still exist, there is no denying that private labels have made great strides in quality.'* They also found out that the hard private labels discounter rivalled or exceeded the quality of manufacturer brands. Over the last decades, consumer perception of private label quality has been improving and is now close to some national brands; the quality stigma attached to private labels disappearing (Fitzell 1992; Quelch and Harding 1996). More specifically, private labels have evolved from a low price low quality product alternative for in the 1970s and 1980s to a true quality brand alternative (Burt 2000). Thus, some private labels have become associated with high-quality products and the perceived risk to consumers lessened (Kumar and Steenkamp 2007).

As the role of price in the propensity to purchase private label becomes less important, so a number of other drivers have been explored, including the degree of familiarity with private labels, differential responses to marketing activities, differences in needs, perceived risk and different product importance among consumers (Livesey and Lennon 1978).

Familiarity

Product familiarity denotes the understanding of a product and its features, and the skill in judging the criteria needed to evaluate product quality (Dick, Jain et al. 1995). As consumers become more familiar with a brand, the structure of their knowledge of it changes due to a reduction in the uncertainty and risk that the consumers perceive from their purchasing activities (Alba and Hutchinson 1987). Lack of familiarity contributes to the elimination of brands from the consideration set for purchase decisions.

The literature associated with private label propensity has identified both direct and indirect relationships between familiarity and perceived risks. On the one hand, national brands lose out as the experience of private labels increases, as long as the experience is perceived to be positive (Monroe 1976). There has been substantial empirical evidence on direct and negative effect of familiarity towards private labels on the perceived risk associated with their purchase (Richardson, Jain et al. 1996; Bailey 1999).

On the other hand, familiarity also has an indirect influence on the perceived risk associated with private label propensity. Perceived quality difference between private labels and national brands can be viewed as a mediating factor here. The greater the knowledge of this type of brand the smaller the difference in terms of perceived quality with respect to national brands, and the more the consumers are willing to buy private labels (Richardson, Jain et al. 1996; Mieres, Martin et al. 2006)

The other two factors which have significant influence on consumer behavior and private label propensity according to the academic literature are perceived risk and culture. These factors are reviewed in detail in the following sections.

In addition to the review above, researchers have also reported other interests in private label studies such as market share of private label across categories (Sethuraman 1992; Hoch and Banerji. 1993); price changes in terms of private label entry (Bonfrer and Chintagunta 2004); price premiums towards national brands and private labels (Sethuraman and Cole 1999); business cycles' influence on private label success (Lamey, Deleersnyder et al. 2007); strategic positioning of private label (Sayman and Raju 2004; Choi and Coughlan 2006); buying processes of private labels (Johanson and Burt 2004); private labels image (Vahie and Paswan 2006) and so on. These studies will not be reviewed here due to the different research focus.

3.2 Understanding Perceived Risk

Risk Perception can be defined as the individual judgement of the likelihood that a consequent loss could occur and the seriousness of its likely consequences (Yeung and Morris 2006, pp295).

3.3.1 Defining Perceived Risk

The concept of 'risk' has been used in various fields such as economics, finance and decision sciences since the 1920s (Dowling and Staelin 1994). Risk, therefore, has been defined from different perspectives. For example, decision theorists define 'risk' as the situation where a decision maker has a prior knowledge of both the consequences of alternatives and their probabilities of occurrence (Dowling 1986).

Perceived Risk Theory was first introduced to the marketing literature by Bauer (1960) to understand the effect on consumer behavior of making decisions under such conditions of imperfect information (Bauer 1967). In

consumer research, risk means a situation where a consumer knows neither the consequences of the alternatives nor the probability of occurrence for the outcome (Dowling 1986). Consumers' perceptions of risk are considered to be central to their evaluations, choices and behavior (Dowling 1999).

Early work on perceived risk in marketing also included risk taking in cognition and personality (Kogan and Wallach 1964); risk taking and information handling in consumer behavior (Cox 1967); conceptual models of perceived risk and handling in consumer behavior (Markin 1974; Taylor 1974; Stem, Lamb et al. 1977).

More recently, the theorists recognized perceived risk as an important factor that not only influences consumer behavior (Grewal, Gotlieb et al. 1994; Conchar, Zinkhan et al. 2004) but also marketing strategies in the retailing industry (Sweeney, Soutar et al. 1999; Hornibrook, Fearné et al. 2005). More specifically, Peter and Ryan (1976) defined perceived risk at the brand level as the expectation of losses associated with purchase and, as such, acts as an inhibitor to purchase.

3.2.2 Dimensions of Perceived Risk

Bauer's (1960, p.24) initial proposition about perceived risk in consumer behavior was: 'consumer behavior involves risk in the sense that any action of a consumer will produce consequences which he/she cannot anticipate with anything approximating certainty, and some of which at least are likely to be unpleasant.'

Since then, many researchers have used the construct of perceived risk to investigate different aspect of consumer behavior. However, this construct has not been given a standard definition (Kaplan, Szybillo et al. 1974). Under this statement, Cunningham (1967) defined the concept of perceived risk into two basic components – uncertainty and consequences, which later were subdivided into two categories – performance and

psychological consequences. Perceived risk increases with higher levels of uncertainty and/or the chance of greater associated negative consequences (Oglethorpe and Monroe 1987). In other words, consumers form perceptions regarding intangible 'psychic costs' (e.g. anxiety and frustration) along with tangible financial and performance losses. Thus, the perceived risk can be in either psychological/social terms or economic/functional terms, or both (Taylor 1974).

While most subsequent research has applied these two dimensions, others have used a different construct such as uncertainty and importance (importance of loss if it occurs) (Schiffman 1972; Bloch and Richins 1983), inherent risk and handled risk (Bettman 1973), personal risk (social and psychological risks) and non-personal risk (financial and performance risks) (Peter and Sr. 1975; Keh and Sun 2008). Here, inherent risk is defined as the latent risk that a product class holds for a consumer. Handled risk is defined as the amount of conflict a product class causes when the purchaser chooses a brand in a usual buying situation. The latter includes the effects of information, the processes of risk reduction and the degree of risk reduction via familiar buying situations (Stem, Lamb et al. 1977).

Some studies have only adopted one dimension - uncertainty (Arndt 1968; Schiffman 1972; Shimp and Bearden 1982). However, the difference between 'perceived uncertainty' and 'perceived risk' has been considered (Cunningham 1969). The distinction between these two concepts is blurred. Some researchers propose that in purchasing behavior it is more likely that the situation confronted by a buyer be that of 'uncertainty' rather than that of 'risk' (Stone and Gronhung 1993).

Bauer (1960) did not give a clear definition of the consequences dimension of perceived risk. It has been later interpreted as the 'importance of loss' (Taylor 1974) or 'the amount at stake in a buying situation is determined by the costs involved in attempting to achieve a particular set of buying goals' (Cox and Rich 1964).

In addition to the dimensions of perceived risk mentioned above, researchers have proposed that the concept relates to various types of loss such as financial, performance, social, physical, financial, psychological, and time (Roselius 1971; Jacoby and Kaplan 1972; Peter and Ryan 1976; Dowling 1986; Stone and Gronhung 1993). These dimensions of perceived risks have been combined in different forms in the consumer research (Table 3.2).

Table 3 2 Key Literatures of Perceived Risk Dimensions on Consumer Behavior (in General)

Key Literatures	Functional Risk	Financial Risk	Social Risk	Psychological Risk	Physical Risk	Performance Risk	Time Risk
The Effect of Knowledge Types on Consumer Perceived Risk and Adoption of Genetically Modified Foods (Klerck and Sweeney 2007)	No	No	No	Yes	Yes	yes	No
Consumers' Perceived Risk: The Case of Beef Purchases in Irish Supermarkets (Hornibrook, Fearn et al (2005)	No	yes	No	Yes	Yes	Yes	Yes
The Importance of Consumer's Perceived Risk in Retail Strategy (Mitchell and Harris 2005)	No	Yes	No	Yes	Yes	No	Yes
Cross-national Applicability of a Perceived risk-value Model (Agarwal and Teas 2004)	No	Yes	No	No	No	Yes	No
Consumers' Perceived Risk: Sources versus Consequences (Lim 2003)	No	Yes	Yes	Yes	Yes	Yes	Yes
Research Note: the influence of perceived risk on brand preference for supermarket products (Skelly 1986)	No	Yes	Yes	No	No	Yes	No
An Investigation of Perceived Risk at the Brand Level (Peter and Ryan 1976)	No	Yes	Yes	Yes	Yes	Yes	Yes
Components of Perceived Risk in Product Purchase: a Cross-Validation (Kaplan, Szybillo et al. 1974)	No	Yes	Yes	Yes	Yes	Yes	No
The Components of Perceived Risk (Jacoby and Kaplan 1972)	Yes	Yes	Yes	Yes	Yes	No	Yes

Functional Risk

Jacoby and Kaplan (1972) stated that functional risk is associated with the performance of the product. It has been defined as 'the potential loss resulting from an inadequate product quality'. These risks are relevant when the function of a product is important (Zielke and Dobbeistein 2007). In addition, it is also related to a consumer's perception of the difficulties to produce a certain category such as required technology and ingredients (Semeijn, Riel et al. 2004). It is also inversely related to the expected quality (DeIVecchio 2001).

Financial Risk

Financial decision is an important area in consumer research (Mandel 2003; Zhou and Pham 2004). Financial risk is defined as a 'net financial loss to a customer' (Jacoby and Kaplan 1972; Hornibrook, Fearne et al. 2005). It has been viewed as the main risk that the consumers tend to focus on because the price/cost composition is easier to evaluate. Consumers compare how much a shopping trip will cost with their shopping budget. Paying more than necessary is considered a financial risk (Mitchell and Harris 2005). The greater the financial gamble the less likely someone is to purchase, other things being equal (*ceteris paribus*).

Social Risk

Social risk reflects the disappointment and embarrassment before family or friends as a result of the poor choice made (Jacoby and Kaplan 1972). In other words, it is related to the way in which purchasing decisions can impact negatively or positively on the way the purchaser is perceived by others (e.g. peer group, family, social network). This category of perceived risk is likely to impact as much (if not more) on the choice of supermarket (e.g. niche versus discount) as it is on the choice among brands.

Psychological Risk

Psychological risk is the harm to the consumer ego that a poor choice produces (Jacoby and Kaplan 1972). It is related to (but distinct from) perceived social risk. Psychological risk is the perceived risk associated with self-esteem (as opposed to the perceptions of others) as a result of the purchase decision an individual makes. It has also been viewed as a combination of social and psychological risk – combining possible loss of self-image or social embarrassment resulting from a purchase (Mitchell 1998; Mitchell and Harris 2005). Together, these two components of perceived risk (social and psychological) capture some of the individual and group level influences that determine brand preferences.

Physical Risk

Physical risk relates to the possible harm or danger to an individual or others (Jacoby and Kaplan 1972). More specifically, it refers to threats to the health or appearance of the consumer, which can be brought about by unsafe products or unsafe shopping experiences. The physical energy expended on shopping can also be seen as part of physical risk (Mitchell and Harris 2005).

Performance Risk

Performance risks are those consequences associated with a product that does not perform as expected (Jacoby and Kaplan 1972; Hornibrook, Fearne et al. 2005) and does not deliver the benefits expected. It integrates the future quality of the service/product at the point of purchase (Keh and Sun 2008). Once the product fails to perform at a desired level, consumers face the other types of risks (Mitchell and Harris 2005).

Time Risk

Time pressure being felt by great numbers of people is having a major impact on consumer behavior (Berry 1979), especially from an Anglo perception (Granham 1981). According to Jacoby and Kaplan (1972), time risk is associated with loss of time and effort associated with achieving satisfaction with a purchase. It has also been defined as convenience risk by Mitchell and Harris (2005) referring to the amount of time required to purchase a product or the time needed to rectify a product. When perceived time risk is high, shoppers are more likely to stay with trusted brands and less likely to try new ones, other things being equal. Moreover, in the context of supermarket shopping, time is often limited and shoppers may seek to navigate the supermarket as quickly as possible. In these circumstances, tried and trusted brands become habitual purchases, with limited time (involvement) made in brand choice.

To summarize, Hornibrook et al (2005) combined these two types of perceived risk classifications above into one model in order to explain the relationship between perceived risk and consumer behavior (see Figure 3.5)

Figure 3.5 Perceived Risk and Consumer Behavior (Hornibrook, Fearn et al. 2005)



3.2.3 Perceived Risk in Consumer Behavior Research of Private Label Products

Since Bauer's initial conceptualization in 1960, perceived risk has been defined as one of the very few research areas in consumer behavior which can be properly said to have a research tradition (Horton 1976). It has been found that uncertainty regarding quality and perception of danger associated with private label purchase are key variables that discriminate private label buyers from national brand buyers (Bettman 1974). The first study of the role of perceived risk towards own label brands investigated the relationship between perceived risk and the preference for generic drug prescriptions and concluded that an individual's concern for performance risk, safety (physical risk) and financial risk have a significant influence (Bearden and Mason 1978). The same year, Liversey and Lennon (1978) stated that social risk inhibits the selection of particular kinds of private label grocery items according to the usage situation. Later, the risk associated with generic and national brands has been tested and insignificant results were produced (Granzin 1981).

Research in the 1980s has concluded that consumers perceived greater risk in private labels than national brands (Toh and Heeren 1982; Harrison, Cooper et al. 1983; Wu, Holmes et al. 1984). One study specified that consumers who manifest a higher aversion to risk will show a lower preference for private labels and they will buy national brands as a way of reducing the risk associated with purchase (Peterson, Jain et al. 1985).

The risk dimensions were first introduced to private label literature by Dunn et al (1986). Three types of risks were employed to examine brand preference among national brand, generic brand and private brand. The study confirmed that the risk profiles consumers formulate for various brand types are associated with their brand preferences. In other words, consumers do perceive different risks associated with these three brand types. More specifically, performance and financial risk dimensions appear

to have more influence than social risk when buying supermarket products. Generic brands were viewed to have the highest performance risk and the lowest financial risk. National brands were perceived to be the least risky in performance and the most risky in financial loss (Dunn, Murphy et al. 1986).

Dick and Jain et al (1995) discovered a significant difference between store brand and non-store brand propensity with respect to the perceived risk. Low store brand prone shoppers perceived more financial, social and psychological risk than high store brand prone shoppers. In their eyes, the cheap priced store brand infer inferior quality which may also result in the perception that the individual is 'cheap' (Dick, Jain et al. 1995).

Richardson and Jain et al (1996) developed a framework to view private brand propensity. Perceived risk here has been defined as a general item rather than divided into dimensions which played a mediating role in testing private label propensity. The result revealed that: firstly, higher perceived risk resulted in poorer perceived value for money and ultimately decreased private brand propensity; secondly, the greater perceived quality difference, the greater risk the shoppers would associate with private label propensity; thirdly, households that are inclined to rely on extrinsic cues in quality assessment perceive more risk while purchasing private labels; finally, if the shoppers are more familiar with private labels, they would perceive less risk and be more willing to make the purchase (Richardson, Jain et al. 1996).

Narasimhan and Wilcox (1998) has also defined perceived risk as a general item and argued that consumers will prefer national brands to private labels if the level of perceived risk in buying the private labels in certain category is high. The degree of perceived risk will increase the degree of quality difference across brands in the category.

Relative to previous literature, Batra and Sinha (2000) offered a fresh insight into the different dimensions of perceived risk that affect the choice

of private labels. Four risk dimensions have been defined: 'Consequences of Purchase Mistake (CPM)', 'Degree of Quality Variability in Category (QV)', 'Search versus Experience Nature of Category (SE)' and 'Price Conscious (PC)'. The findings show that the perceived consequences of making a purchase mistake are higher when the different brands in the category are seen as differing appreciably in quality. Moreover, if a category's benefits requires actual trial/experience instead of searching through package label information, consumers will buy fewer private labels (Batra and Sinha 2000).

Semeijin et al (2004) investigated how store image and various perceived risks associated with product attributes affect consumer evaluations of private label. Results shows that perceived psychological risk, perceived functional risk and perceived financial risk play a mediating role between store image and evaluation of private label. A negative effect of the perceived risks of consumer evaluations of private labels was predicted. Retailers are able to neutralize functional risk and psychological risk by means of their store images. Results also concluded that when quality variance within a product category is high, it is likely that consumers will choose national brands over private labels to reduce financial risk.

3.2.4 Dimensions of Perceived Risk and Private Label Propensity

More recently, Jacoby and Kalpan's (1972) risk dimensions have been used to evaluate consumers' propensity to purchase private labels by comparing them with national brands.

Mieres et al (2005) analyzed the antecedents of the difference in perceived risk (in general) between national brands and private labels. The measurement scales of five perceived risk dimensions (functional risk, financial risk, social risk, physical risk and time risk) were adopted. The scales corresponding to each of the risk dimensions were jointly used, which allowed for a more complete and precise measurement of the concept (Mieres, Martin et al. 2005). The result indicated that perceived

quality difference has a negative effect on the difference in perceived risk. Also, familiarity has both indirect and direct negative effect on the difference in perceived risk towards purchase behavior of private label.

In another study by Mieres et al (2006), perceived psychological risk has been added to the framework together with the other five risk dimensions to test the influence of perceived risk on private label propensity. The result confirmed that the differences perceived by consumers with regard to functional, financial, social psychological and time risk dimensions have a significant negative influence on consumption intensity of private labels. Interestingly, in spite of the higher prices of national brands, financial risk is lower than in the case of private labels. In addition, the physical risk is the only one that does not have a significant effect on private label propensity. It may be due to the different physical characteristics of the product categories (Mieres, Martin et al. 2006).

Financial risk, social risk and functional risk have been adopted by Zielke and Dobbeilstein (2007) to test customers' willingness to purchase new private labels in different product categories. The results indicate that butter, characterized by the lowest financial, functional and social risk, exhibited by the highest purchase willingness. In contrast, buying private labels in potato chips and sparkling wine is accompanied by a social risk, hence a smaller willingness to buy. Moreover, consumers prefer premium private labels than the other types of private labels in high social risk categories (e.g. sparkling wine).

Table 3.3 summarizes the literature of perceived risks on purchase behavior of private labels since the 1980s.

Table 3 3 Key Literature of Perceived Risks on Purchase Behavior of Private Label

Author	Year	Title of Publication	Risk Dimensions
Bearden and Mason	1978	Consumer-Perceived Risk and Attitudes toward Generically Prescribed Drugs	Performance Risk Physical Risk Financial Risk
Liversey and Lennon	1978	Factors Affecting Consumers' Choice Between Manufacturer Brands and Retailer Own Brands	Social Risk
Granzin	1981	An Investigation of the Market for Generic Products	Risk in General
Toh and Herren	1982	Perceived Risks of Generic Grocery Products and Risk Reduction Strategies of Consumer	Risk in General
Harrison et al	1983	Generic Products: low price and low quality and what this means to consumer	Risk in General
Wu et al	1984	Risk Taking its effect on selection of branded and generic grocery items	Risk in General
Peterson et al	1985	Perceived Risk and Price Reliance Schema as Price-Quality Mediators	Risk in General
Dunn et al	1986	Research Note: The Influence of Perceived Risk on Brand Preference for Supermarket Products	Performance Risk Financial Risk Social Risk
Dick et al	1995	An Investigation of the Market for Generic Products	Financial Risk Social Risk Psychological Risk
Richardson et al	1996	Household Store Brand Proneness: A Framework	Risk in General
Narasimhan and Wilcox	1998	Private Labels and the channel relationship: a cross-category analysis	Risk in General
Batra and Sinha	2000	Consumer-level factors moderating the success of private label brands	Consequences of Purchase Mistake; Degree of Quality Variability; Search versus Experience Nature; Price Conscious
Semeijn et al	2004	Consumer evaluations of store brands: effects of store image and product attributes	Psychological Risk Functional Risk Financial Risk
Miere et al	2005	Antecedents of the difference in perceived risk between store brands and national brands	Functional Risk; Financial Risk Social Risk Physical Risk Time Risk
Mieres et al	2006	Influence of perceived risk on store brand proneness	Functional Risk Financial Risk Social Risk Psychological Risk Physical Risk Time Risk
Zielke and Dobbelsstein	2007	Customers' willingness to purchase new store brands	Financial Risk, Social Risk Functional Risk

3.3 Understanding Culture

Culture provides a sort of shared understanding among people in a society that allows them to predict and coordinate social activities, and cultural values refer to the core of the entire culture's mindset shared by a society. Shared cultural values help to shape the contingencies to which members of a society should adopt in the institutions in which they spend their time (Park and Rabolt 2009, pp.295)

3.3.1 Defining Culture

To understand how culture affects consumers' purchasing behavior towards private labels, we first need a clear definition of culture.

Culture has different definitions depending on the context and period of study. Two anthropologists, Kroeber and Kluckhohn (1952), identified more than 160 different definitions of the term 'culture' and classified them into six groups: descriptive, historical, psychological, structural, genetic and normative. For example, a historical culture has been defined as: '... the configuration of learned behavior and results of behavior whose component elements are shared and transmitted by the members of a particular society' (Linton 1945). Clyde Kluckhohn (1961) presented a widely accepted definition of the term culture:

Culture consists of patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievement of human groups, including their embodiment in artefacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values (Kluckhohn 1961, pp.90)

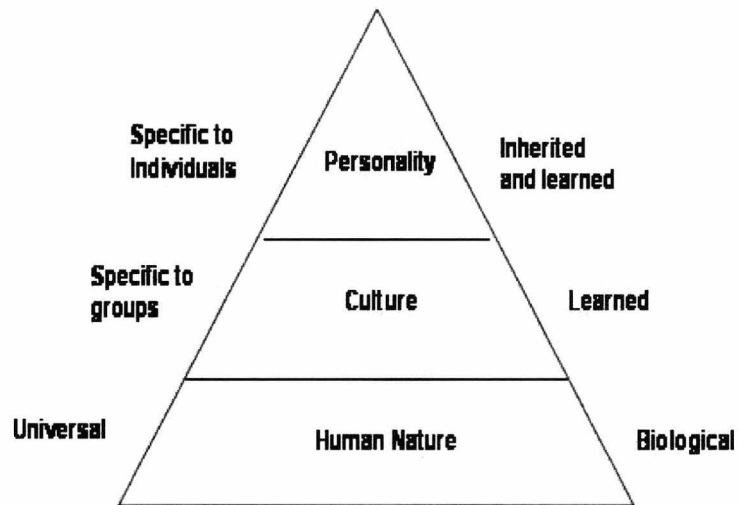
Previous researchers have studied culture from two perspectives – the 'post-modern' perspective and the 'modernist' perspective. The 'post-modern' culture is defined as a human community, its individuals, and social organisations, along with other economic and political systems (Costa and Bammosy 1995). In contrast, in Karl Marx' early writings, first

published in 1939, the 'modernist' perspective regards culture and economy as two separate spheres of activity, where culture is viewed as part of a superstructure that is moulded by the conditions and relationships in the infrastructure (Marx 1939; Parson 1968).

These orientations, taken together, provide solutions to problems that all societies will have to solve if they are remain viable. More specifically, culture has been given different definitions in various fields. For example, a business orientated culture has been defined as a set of symbols that can be learned, shared, compelling and interrelated. Their meanings provide a set of orientations for members of society (Terpstra and David 1991). In marketing psychology, culture is defined as a combination of learned beliefs, values, and customs that serve to influence and direct the consumer behavior of members of a particular society (Schiffman and Kanuk 1994).

3.3.2 Culture and Consumer Behavior

Consumer behavior has generally been viewed as a socio-cultural phenomena (Costa and Bammosy 1995). Culture has been viewed as an environmental characteristic that influences consumer behavior (Roth 1995). Also, cultural values are central to understanding consumer behaviors (Carman 1978; Munson and McIntyre 1979). Consumer culture theory (CCT) explores how consumers actively rework and transform symbolic meaning encoded in advertisements, brands, retail settings, or material goods to manifest their particular personal and social circumstances and further their identity and lifestyles goals (Arnould and Thompson 2005). The most famous definition of culture which has been generally applied in marketing research was developed by Hofstede (2001a): The collective mental programming that lies between human nature and personality (Figure 3.6).

Figure 3 6 Three Levels of Mental Programming

(Hofstede 2001a)

To understand the scope and complexity of culture more fully, it is useful to examine a number of its underlying characteristics in consumer behavior. Previous researchers summarized three features of culture: 1) culture is shared; 2) culture is learned and 3) culture is systematic (Schiffman and Kanuk 1994; Thomas 2008).

First of all, culture is not a characteristic of an individual. It encompasses a number of people who are conditioned by the same education and life experience. Moreover, culture is a learned behavior. It is learned unconsciously. That unconscious process is called socialization - the process whereby the young of a society learn the values, ideas, practices, and roles of that society (Lawson and Garrod 2000). Furthermore, cultures are integrated coherent logical systems, the parts of which are interrelated. This means culture is not only a random assortment of customs, it is also an organized system of values, attitudes, beliefs, and behavioral meanings related to each other and to the environmental context (Thomas 2008).

Schiffman and Kanuk (1994) demonstrated that while studying the influence of culture on consumer behavior, culture can be defined more precisely – as cultural values which serve as a guide for culturally

appropriate behavior. They are not tied to specific objects or situations and also widely accepted by the members of a society. Such cultural values are believed to serve as directing principles that exert considerable influence on consumers' attitudes and shopping behavior (Zhang and Gelb 1996). Usunier (2000) has also stated that culture-based value has significant influence on purchasing behavior and buying decisions (especially individualistic and collectivist orientations). Shopping is viewed as an individual activity in some societies where are dominated by an individualistic culture value. In contrast, in collectivist society, shopping is more likely to be defined as a group activity which can be influenced by other society members.

People have different personalities within each cultural group, but the distribution of personality characteristics such as values and character traits follows the normal distribution. Although there are many different individual personalities in any society, the most frequent is used to approximate national culture. On the one hand, cultural elements are held by individuals and influence both individuals and society. In comparative research across nations, the average value priorities of individual members of one society are compared with another. The average value priorities of a group are what the members of that group or nation have in common. On the other hand, value types found within countries may be different from value types found across countries. This is because factor loadings can be very different, as individuals and groups may differ substantially in the importance they attribute to the values that constitute a value type (De Mooij 2004).

3.3.3 National Culture

The word *nation* is often used as a synonym for culture without any further conceptual grounding (Bhagat and McQuaid 1982). On the one hand, multiple cultures can exist within national borders; on the other hand, the same cultural group can span many nations. For example, China is home to 55 minorities (e.g. Mongolian, Muslim, Korean etc), each having

distinctive cultures. However, the 20th century saw the emergence of nation-states that, at least initially in many cases, were a political expression of cultural similarity (e.g Japan and Taiwan).

Because nations are political entities, they vary in different aspects such as forms of government, legal systems, languages which may be in addition to the one an inhabitant learned from birth (Smith, Bond et al. 2006). Therefore, a powerful argument in favour of national culture has been given by Hofstede (1983) – nationality has a symbolic value to citizens that influences how we perceive ourselves. Thus, we all derive our self-identity in part from our nationality.

National culture becomes critical because social interaction referrals that create marketing opportunities in a given country would be expected to be different from those of another country because of cultural differences (Yalcinkaya 2008). Therefore, from an international business perspective, national culture is probably the most logical level of analysis from which to begin to understand the cultural environment.

More specific, from a marketing point of view: within nations that have existed for some time there have been strong forces toward further integration: usually one dominant language, common mass media, a national education system, and national markets for products and services. Therefore, a country can be viewed as a desired unit to study cross-cultural behavior.

3.3.4 Dimensions of Culture

According to social adaptation theory, values are a type of social cognition that function to facilitate adaptation to one's environment through continuous assimilation, accommodation, organization, and integration of environmental information (Piner and Kahle 1984). Models that distinguish value categories or dimensions of culture can help to analyze differences at a cultural level. They allow statistical analysis that can discover

relationships between country's scores on cultural dimensions and panel data and consumer behavior.

Cultural characteristics distinguishing countries, described by international management consultants Harris and Moran (1987), are sense of self and space, communication and languages, food and feeding habits, time consciousness, values and norms, beliefs and attitudes, and work habits and practices. Several well-known scholars have spent their entire careers developing comprehensive models of cultural values concluding that values do vary in a systematic way from one culture to another (Kluckhohn 1952; Hall 1976; Schwartz 1994; Hofstede 2001a). The following sections will summarize these models and find the one which has the best fit with consumer behaviour research.

Kluckhohn and Strodtbeck's (1952) Five Value Orientation

Kluckhohn and Strodtbeck (1952) propose five value orientations on the basis of their investigations of small communities in the south west of the United States: perception of human nature (good/evil); (2) relationship of man to his environment (subjugation-mastery); (3) time orientation (past-present); (4) orientation toward the environment (being and doing); (5) orientation toward human relationships (hierarchical-individualistic) (Kluckhohn 1952).

Trompenaars (1993) applied Kluckhohn's five orientations to countries and presented seven categories of work-related values: universalism - individualistic; achievement - ascription, individualism - collectivism, emotional - neutral, specific - diffuse, time orientation, and orientation to nature. However, Trompenaars' dimensions are not statistically independent and he produced no country scores, so his findings are not useful for analysis of consumption data. Also, on the basis of these dimensions, Inkelees and Levinson (1997) summarized a few issues that qualify as common basic problems worldwide: (1) relation to authority; (2) the conception of self, including ego identity; and (3) primary dilemmas of

conflict and dealing with them.

Edward Hall's (1976) High-context and Low-context Model

Edward Hall (1976) distinguishes between patterns of culture according to context, space, time, and information flow. In particular, the context concept is useful for understanding consumer behavior across cultures and also relates to individualism-collectivism which is also one of Hofstede's dimensions.

High-context communication involves transmitting implicit, indirect messages that minimize the content of the verbal message, information is in the visuals, the symbols, and the associations attached to them. Therefore, in high-context (collectivistic) cultures much of the information derived from a message is present in the context. People of high-context cultures are used to symbols, signs, and indirect communication. Low-context communication involves being direct, precise and open. In low-context communication, information is in the words. Thus, in low-context (individualistic) cultures meaning often relies on explicit information; pictures speak for themselves. People in low-context cultures are used to explanations, persuasive copy, and rhetoric (De Mooij 2004).

High-context communication occurs when most of the information in a message is either in the physical context or internalized in the person; very little is in the coded, explicit part of the message. In high-context communication the meaning of the message is difficult to assess by outsiders, such communication is viewed to be inaccessible. For the verbal styles, high-context cultures of moderate to strong uncertainty avoidance tend to use the elaborate style – information is implied in the context rather than coded during communication (De Mooij 2004); low-context communication occurs when the greatest amount of information is vested in the explicit communication code.

In interpersonal communication, individualists (low-context) emphasize content, collectivists (high context) expect to read the other's mind (Triandis 1995). Communication in individualistic cultures places the emphasis on speaking skills and speaker strategies for effective communication, whereas collectivistic cultures emphasize listening and interpretation (Singelis and Brown 1995). Low-context cultures of weak uncertainty avoidance (e.g., U.S. and U.K.) tend to use the exacting style.

Shalom Schwartz's (1994) Seven Value Types

The Israeli psychologist Shalom Schwartz (1994) presents a conceptual and operational approach for deriving cultural dimensions of work-related values. This study looks at the value of priorities in 87 samples of teachers and students from 41 cultural groups in 38 nations. The seven value types (or motivational domains) distinguished by Schwartz are summarized as:

- Conservatism: a society that emphasizes close-knit harmonious relations, the maintenance of status-quo and avoids actions that disturb traditional order;
- Intellectual autonomy: a society that recognizes individuals as autonomous entities who are entitled to pursue their own intellectual interests and desires;
- Affective autonomy: a society that recognizes individuals as autonomous entities who are entitled to pursue their stimulation and hedonism interests and desires;
- Hierarchy: a society that emphasizes the legitimacy of hierarchical roles and resource allocation;
- Mastery: a society that emphasizes active mastery of the social environment and individual's rights to get ahead of other people;
- Egalitarian commitment: a society that emphasizes the transcendence of selfless interests;
- Harmony: a society that emphasizes harmony with nature.

According to De Mooij (2001), the model by Schwartz is less used in quantitative cross-cultural studies, but is attractive to the advertising world because it describes value types in terms that are appealing to people in advertising who like to describe imaginary consumers in terms of abstract preferences, such as pleasure, sensuous gratification, excitement, novelty, challenge or hedonism. It can also present both individual-level and culture-level value types. Culture-level types should be used for understanding differences between cultures in their institutions, symbol systems and styles of behavior.

In addition to the key cultural dimensions above, there are a few other cultural dimensions which have been used in business research including the following:

- (1) Affective versus affective neutrality, self versus collectivity orientation, universalism versus particularism, ascription versus achievement and specificity versus diffuseness (Parsons and Shils 1951);
- (2) The cultural dimensions identified by GLOBE projects of uncertainty avoidance, power distance, societal collectivism, in-group collectivism, gender egalitarian, assertiveness, future orientation, performance orientation and humane orientation (House, Hanges et al. 2004);
- (3) Paternalism dimension which refer to the extent to which it is appropriate for managers to take a personal involvement in the private lives of workers (Dorfman and Howell 1988).

Although these cultural dimensions are not as well-known as the others and have not been used in many business studies, they still need to be taken into account while studying the effect of cultural differences in marketing or other fields.

Geert Hofstede's (1980) Five Cultural Dimensions

In 1980, Geert Hofstede published his first ground breaking book on cross-cultural research – '*Culture's Consequences: International Differences in Work-Related Values*'. Later in 2001, the original book and the subsequent updated edition, entitled '*Culture's Consequences: Comparing Value, Behaviors, Institutions, and Organizations across Nations*'.

His study was based on a large data base of employee by IBM between 1967 and 1973 covering more than 70 countries (Hofstede 1980). The initial survey was designed for a consulting project for IBM and later the finding was reinterpreted in terms of how IBM employees in different countries responded to the survey questions from a working related perspective. This value survey consists of 20 content questions and 6 demographic questions. From the initial results till later addition, Hofstede developed a model that identified four primary cultural dimensions: individualism (IDV), Masculinity (MAS), Uncertainty Avoidance (UAI) and Power Distance (PDI). The fifth dimension - Long-term Orientation (LTO) has been added after conducting an additional international study with a survey instrument developed with Chinese employees and managers.

Although, Hofstede's dimensions have become key variables or explanatory features in a wide variety of research (Milner, Fodness and Speece 1993), there are some critical questions remaining in relation to his dimensions. For example, Ailon (2008) finds several theoretical and methodological inconsistencies and cautions against an uncritical reading of Hofstede's cultural dimensions. Also, it has been criticized by researchers, in particular the assumption that within each nation there is a uniform national culture. This suggestion was explicitly denied by Hofstede himself in '*Cultures and Organizations*'. According to Hofstede, the point about culture is precisely its resilience to change in spite of all this flux (McSweeney 2002).

In addition, it is also argued that whether his country scores, which were produced thirty years ago, are still valid to use at present. The recent research of Hofstede considered the changing of national scores over time and shows that scores of each country may differ from time to time, but it will not affect the country's main value orientation.

In terms of sampling, it is a concern that Hofstede's dimensions were derived from answers by IBM employees that may only represent certain group of respondents – Hofstede states that the IBM populations measured were essentially middle-class.

However, these limitations did not stop Hofstede's cultural value classification become one of the most popular models which has been applied in cross-cultural studies. Since the 1980s, Hofstede's study has inspired thousands of empirical studies of comparing culture values across countries. Kirkman, Lowe and Gibson (2006) qualitatively reviewed almost 200 empirical studies that used Hofstede's cultural dimensions and were published in 40 journal and book series between 1980 and 2002. Together with two other recent qualitative reviews of the cross-cultural organization behavior and psychology fields of the last decade by Gelfand, Erez and Aycan (2007) and Tsui, Nifadkar and Ou (2007). It shows that Hofstede-inspired empirical research is increasing exponentially (Tara, Kirkman and Steel, 2010).

Hofstede's five dimensions have been incorporated into several cross-cultural studies and have led to many useful explanations of cross-cultural differences in various fields such as organization behavior, business management and human resource management. It has also been applied to the management of international retailing, but are equally useful for statistically analyzing consumption differences across nations (De Mooij and Hofstede 2002; Steenkamp, Hofstede et al. 1999; Straughan and Albers-Miller 2000; Yoo and Donthu 2005; Erdem, Swait et al. 2006; Paul, Roy et al. 2006; Singh 2006; Lam 2007; Yalcinkaya 2008; Lam, Lee et al. 2009).

Here, each dimension of cultural values will be explained in details and their potential impact on consumer behavior will also be analyzed.

Collectivism versus Individualism (CO)

“the degree to which individuals are integrated into groups. On the individualist side we find societies in which the ties between individuals are loose: everyone is expected to look after him/herself and his/her immediate family. On the collectivist side, we find societies in which people from birth onwards are integrated into strong, cohesive in-groups, often extended families (with uncles, aunts and grandparents) which continue protecting them in exchange for unquestioning loyalty. The word 'collectivism' in this sense has no political meaning: it refers to the group, not to the state. Again, the issue addressed by this dimension is an extremely fundamental one, regarding all societies in the world” (www.geert-hofstede.com, retrieved 3rd January 2008)

Individualism-collectivism has also been defined as the most pronounced difference of self and identity across cultures, where the self should be either independent or interdependent. Individualism-collectivism is the dimension that explains most differences, both in inter-personal and in mass communication. Also it has been applied the most in marketing and consumer behavior studies. It is viewed as the strongest cultural determinant of a reference group (De Mooij 2004).

The independent self of individualistic cultures forms context-independent schemata, whereas the inter-dependent self of collectivistic cultures forms context-dependent schemata (Kühnen 2001). Therefore, in individualistic cultures one's behavior or the result of one's behavior (e.g., success) is explained more by internal attributes than by situational factors, whereas in collectivistic cultures the focus is on external, relational attributes such as social support or situational factors (Gelfand, Spurlock et al. 2000).

For example, Americans have more positive attitudes toward brands with differentiation associations, i.e., brands that set themselves apart as individual. Conversely, the Chinese have more positive attitudes toward brands with group assimilation association, i.e. brands that demonstrate their connection to others (Aaker and Schmitt 2001). In Japan, shopping is viewed as a social activity because the members of collectivistic cultures are controlled more by external influence than members of individualistic cultures (Smith, Trompenaars et al. 1995). It can imply that social acceptance and security are desired values of a collectivistic culture and convenience is attractive to individualistic cultures.

Because of the greater sensitivity to situational demands, such as the expectation of others, in collectivistic cultures the difference is likely larger than in individualistic cultures. Individualists have fewer situational constraints on behavior, which as a result better reflects personal attitudes or values; in contrast, in collectivistic contexts the greater embeddedness of persons in groups weakens the connection (Kagitçibasi 1997).

In addition, McCrae (2002) mentions that research surveys should also be culturally context-related because even extraversion score levels are higher in individualistic cultures than in collectivistic cultures. respondents of individualistic culture would be more likely to have extreme answers, whereas respondents of collectivistic culture tend to give more neutral answers.

In retailing, the dimensions of individualism and collectivism have significant impact on branding, consumer buying behavior and marketing communication. It is also the dimension which has been used the most in retailing studies. The dimension of individualism dimension has been used to study cultural influence on brand personality, brand image, and brand loyalty.

In individualistic cultures, brands have to be unique, distinct, and contain consistent characteristics; whereas in collectivistic cultures the

brand personality should be viewed as being part of a larger whole, being a person in the world of other brands. In Asia, which is viewed as a collectivistic culture, a brand should be better defined as being part of brand world instead of being a unique personality. Moreover, in individualistic cultures, a brand is supposed to have a consistent personality, whereas in collectivistic cultures one brand can have different personality attributes in different contexts (De Mooij 2004).

Although, the product's image should contribute to the consumer's self-concept (Barone, Shimp et al. 1999), this process is likely to vary with the different self-concepts according to cultural differences. Whereas product ownership in individualistic cultures can express personality, uniqueness and independence, in collectivistic cultures the extended self is the group, and product ownership may have the function of demonstrating life stage and group identity. For example, in Japan brands do not enhance a unique personality but confirm certain elements of social status (Markus and Kitayama 1991). Therefore, seeking status by buying international brands is also a phenomenon of collectivistic cultures.

Straughan and Albers-Miller (2000) argue that cultural individualism is negatively correlated with loyalty to domestic retailers. The reasons include the belief that collectivism is expected to lead to stronger feelings of loyalty to domestic merchants. Collective interdependence, much like a bureaucratic organizational structure, creates a barrier to change. If the foreign retailer is less established than the domestic retailer, there would be an observed resistance to change. In addition, as we have mentioned above, buying store brands is common in individual cultures which is also related to short-term orientation (De Mooij 2004).

Masculinity versus Femininity (MA)

Masculinity (MA) versus its opposite, femininity, refers to the distribution of roles between the genders which is another fundamental issue for any society to which a range of solutions are found. The IBM studies revealed that (a) women's values differ less

among societies than men's values; (b) men's values from one country to another contain a dimension from very assertive and competitive and maximally different from women's values on the one side, to modest and caring and similar to women's values on the other. The assertive pole has been called 'masculine' and the modest, caring pole 'feminine'. The women in feminine countries have the same modest, caring values as the men; in the masculine countries they are somewhat assertive and competitive, but not as much as the men, so that these countries show a gap between men's values and women's values (www.geert-hofstede.com, retrieved 3rd January 2008)

A gender role is a set of culturally defined behavioral norms associated with males and with females in a given social group (Connell 1987). While age, ethnicity, class, and many other factors also have culturally prescribed norms, gender is the most universal and salient social organizing principle (Roopnarine and Mounts 1987). A person's gender role is composed of several elements and can be expressed through clothing, behavior, choice of work, personal relationships and other factors (An and Kim 2006).

According to De Mooij and Hofstede (2002), in masculine cultures the dominant values are achievement and success. The dominant values in feminine cultures are caring for others and quality of life. Which means in masculine cultures, status is important to show success, but not in feminine cultures. Therefore, when luxury articles are used as manifestations of one's material success, they are more attractive to members of masculine cultures than to members of feminine cultures because masculinity is viewed as focussing on ego and money orientation, whereas femininity focuses on relationships and people orientation (lower neuroticism). Also, in masculine cultures with high self-enhancement and self-esteem, people are more likely to categorize themselves in relation to others, whereas it is more unlikely in feminine cultures, where people are less inclined to consider themselves as 'better' or 'worse' than others (De Mooij 2004).

Uncertainty versus Avoidance (UA)

'deals with a society's tolerance for uncertainty and ambiguity; it ultimately refers to man's search for Truth. It indicates to what

extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations. Unstructured situations are novel, unknown, surprising, different from usual. Uncertainty avoiding cultures try to minimize the possibility of such situations by strict laws and rules, safety and security measures, and on the philosophical and religious level by a belief in absolute Truth; 'there can only be one Truth and we have it'. People in uncertainty avoiding countries are also more emotional, and motivated by inner nervous energy. The opposite type, uncertainty accepting cultures, are more tolerant of opinions different from what they are used to; they try to have as few rules as possible, and on the philosophical and religious level they are relativist and allow many currents to flow side by side. People within these cultures are more phlegmatic and contemplative, and not expected by their environment to express emotions' (www.geert-hofstede.com, retrieved 3rd January 2008).

Uncertainty about the future is a basic fact of life with which we try to cope through the domains of technology, law and religion. Different societies have adapted to uncertainty in different ways. The different ways of coping with uncertainty refer to the cultural heritages of societies; they are transferred and reinforced through basic institutions, such as the family, the school and the state. They are reflected in collectively held values of the members of a particular society (Hofstede 2001a).

In marketing, uncertainty avoidance has been used most frequently in the context of innovation and loyalty. According to Rogers (1962, p6), 'uncertainty implies a lack of predictability, of structure, of information'. Thus, the purchase of a new product or brand brings a level of inherent uncertainty.

Because innovators are generally able to cope with higher levels of uncertainty (more agreeable) about an innovation, in cultures of lower uncertainty avoidance the percentage of innovators is larger than in cultures of high uncertainty avoidance. For instance, countries of low uncertainty avoidance in Asia, such as China, adopt innovations faster. This can be contrasted to the Japanese (high uncertainty avoidance) who are cautious until the facts about a novel product are known, whereas the Chinese (low uncertainty avoidance) are the least cautious (Samli 1995).

Moreover, Straughan and Albers-Miller (2000) found that uncertainty avoidance is positively related to loyalty to domestic retailers. Higher levels of uncertainty avoidance are expected to lead to group-level preferences for domestic retailers while foreign retailers are more likely to be perceived as different or unusual. Hofstede (1991) has also noted that high uncertainty avoidance cultures are much more nationalistic and ethnocentric. It is also worth noting that uncertainty avoidance is differentiated from risk aversion in that uncertainty avoidant individuals may engage in a higher risk option in order to reduce their uncertainty. When risks are taken they are generally limited to known risk (Lee, Garbarino et al. 2007).

Power Distance (PO)

'the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally. This represents inequality (more versus less), but defined from below, not from above. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders. Power and inequality, of course, are extremely fundamental facts of any society and anybody with some international experience will be aware that 'all societies are unequal, but some are more unequal than others' (www.geert-hofstede.com, retrieved 3rd January 2008).

Mulder (1977) was the first one who described Power Distance Theory, he defines power distance as 'the degree of inequality in power between a less powerful individual (I) and a more powerful Other (O), in which I and O belong to the same (loosely or tightly knit) social system' (Mulder 1977). When studying consumer's purchasing behavior, the power distance concept has been used frequently in the study of information search and viewed as a factor which could impact on buyers' perceptions.

In high power distance cultures, people tend to seek product information from personal sources rather than impersonal sources because individuals are strongly connected within their social groups. Also, because

they trust in the police, legal and other professional system less than people from low power distance (the unwritten 'rules' are more likely established by powerful people from each social group), an assumption is that the larger the power distance and uncertainty avoidance of a country, the smaller the proportion of consumers who search for product information from impersonal, professional and objective materials, such as consumer reports (Dawar, Parker et al. 1996),

In contrast, low power distance generally stimulates independent exploration (McCrae 2002). For example, in cultures of high power distance, people read more information labels on food products, and even think that labels provide too little information.

Moreover, power distance and related dependency needs cause a more dominant role for elders and superiors in decision making; even middle age starts earlier than in low power distance culture. Social status is relatively important in cultures of large power distance. In contrast, youth and self-confidence is a very important value for low power distance cultures (De Mooij 2004).

Long-term Orientation versus Short-term Orientation (LT)

'Values associated with Long Term Orientation are thrift and perseverance; values associated with Short Term Orientation are respect for tradition, fulfilling social obligations, and protecting one's 'face'. Both the positively and the negatively rated values of this dimension are found in the teachings of Confucius, the most influential Chinese philosopher who lived around 500 B.C.; however, the dimension also applies to countries without a Confucian heritage' (www.geert-hofstede.com, retrieved 3rd January 2008).

This is the only dimension which was found in a study among students instead of IBM employees. Values associated with long term orientation are thrift and perseverance; values associated with short term orientation are respect for tradition, fulfilling social obligations, and protecting one's 'face' (Hofstede 2001a). In other words, long-term orientation is the extent to

which a society exhibits a pragmatic, future-orientated perspective rather than a conventional historic or short-term perspective.

De Mooij and Hofstede (2002) emphasise that in retailing, a preference for discounters is not necessarily related to long-term orientation, although this dimension includes value of thrift. What appeals to long-term orientation cultures are promotional activities that offer discounts or long-term saving opportunities, such as saving stamps that build longer term relationships between consumers and brands. Another consequence of long-term orientation is variation in willingness to pay for convenience which is likely to be related to e-commerce (De Mooij and Hofstede 2002). In conclusion, we could say that long-term orientation is related to price consciousness and convenience.

These five dimensions of culture values have been used by AC Nielsen (2001) to look at their potential impact on private label purchasing decisions. The authors concluded that shoppers in collectivistic and long-term orientated cultures (Asia in general and China in particular) would be more inclined to choose national or global brands over private labels because the former represent added value that in turn help individuals demonstrate their social status (ACNielsen 2001).

In contrast, shoppers in cultures characterised by higher levels of individualism and lower power distance (Western Europe in general and the UK in particular) were more positively receptive to private brands. In lower levels of individualism and higher power distances, such as is generally found in Asia and particularly in China, private brands were perceived as being mainly for price sensitive consumers, although the price differential between private labels and manufacturer brands in these countries is often less than in other countries. One of the main reasons suggested for this by the authors of the AC Nielsen study is the lower levels of knowledge about and familiarity with supermarket brands than is generally the case in countries (e.g. Western Europe and North America) with high levels of individualism and lower power distance (ACNielsen

2005b).

Hofstede's measurement scales of cultural dimensions have been tested in many cultures. This validated instrument has been used successfully in previous studies on consumer behavior (Steenkamp, Ter Hofstede et al. 1999; Yoo and Donthu 2005; Lam 2007) (Table 3.4). It is suitable for exploring the differences in perceived risk and other behavior related variables of private label. Therefore, this research will adopt Hofstede's five dimensions as the academic foundation in the analysis of factors that influence consumer attitudes towards, and purchase of, private labels.

Table 3.4 Key Literatures of Consumer Behavior Using Hofstede's Cultural Dimensions

Author	Year	Title of Publication	Cultural Dimensions
Desmond Lam, Alvin Lee and Richard Mizerski	2009	The Effects of Cultural Values in Word-of-Mouth Communication	Collectivism, Uncertainty Avoidance, Masculinity, Power Distance
Goksel Yalcinkaya	2008	A Culture-based Approach to Understanding the Adoption and Diffusion of New Products Across Countries	Collectivism, Uncertainty Avoidance, Masculinity, Power Distance Long Term Orientation
Desmond Lam	2007	Cultural Influence on Proneness to brand Loyalty	Collectivism, Uncertainty Avoidance, Masculinity, Power Distance
Pallab Paul, Abhijit Roy and Kausiki Mukhopadhyay	2006	The Impact of Cultural Values on Marketing Ethical Norms; A Study in India and the United States	Collectivism, Uncertainty Avoidance, Masculinity, Power Distance Long Term Orientation
Tulin Erdem, Joffre Swait and Ana Valenzuela	2006	Brands as Signals: A Cross-Country Validation Study	Collectivism, Uncertainty Avoidance, Power Distance
Sangeeta Singh	2006	Cultural values in international advertising; an examination of familial norms and roles in Mexico	Collectivism, Uncertainty Avoidance, Masculinity, Power Distance
Boonghee Yoo, Naveen Donthu	2005	The Effect of Personal Cultural Orientation on Consumer Ethnocentrism: Evaluations and Behaviors of U.S. Consumers Toward Japanese Products	Collectivism, Uncertainty Avoidance, Masculinity, Power Distance Long Term Orientation
Robert D. Straugham and Albers- Miller	2001	An International Investigation of Cultural and Demographic Effects on Domestic Retail Loyalty	Collectivism, Uncertainty Avoidance, Masculinity, Power Distance Long Term Orientation
Jan-Benedict E.M. Steenkamp, Frenkel ter Hofstede and Michel Wedel	1999	A Cross-National Investigation into the Individual and National Cultural Antecedents of Consumer Innovativeness	Collectivism, Uncertainty Avoidance, Masculinity,

3.4 Defining Research Gap

The literature review above has summarized the key studies on private label purchase behavior, cultural dimensions and the role of perceived risk in consumer behavior. There has been numerous research studying the relationship between cultural values and consumer behavior from various perspectives. However, very few studies has looked at the impact of cultural values on private label purchase behavior in particular.

Moreover, although perceived risk has been viewed as one of the most important factors when evaluating the propensity to buy private label, previous studies have only tested their influences from a branding perspective. A limited number of studies have looked at the different role of perceived risk towards private label from a cross-cultural perspective. Furthermore, there are a limited number of studies investigating the influence of culture on perceived risk, and even fewer considering the dimensions of cultural value and perceived risk. Therefore, an integrated model is still needed.

In addition, research on private label purchasing behavior has been mainly concentrated in Europe and North America. Two studies have been carried out in Southeast Asia, in Taiwan and Thailand (Shannon and Mandhachitara 2005; Cheng, Chen et al. 2007). There has not been any studies looking at Chinese consumers' willingness to purchase private labels and no comparative studies from a Western – Eastern perspective.

Therefore, the aim of this research is to measure the impact of cultural value on private label propensity through perceived risks and other (moderating) factors. The theoretical framework is presented in the next chapter, along with the formal hypotheses derived from the literature review.

CHAPTER FOUR

**CONCEPTUAL FRAMEWORK
AND RESEARCH HYPOTHESES**

4.0 Introduction

The aim of this research is to measure the impact of culture on the propensity of supermarket shoppers to purchase private labels, recognising that culture is not the only factor that influences purchasing behavior. In this chapter, an attempt is made to conceptualise the relationship between cultural values, perceived risks and other factors in order to study how they might affect the propensity of supermarket shoppers to purchase private label products.

According to Baltas (1997), the factors that determine the development (success/failure) of private labels may be categorised at three levels:

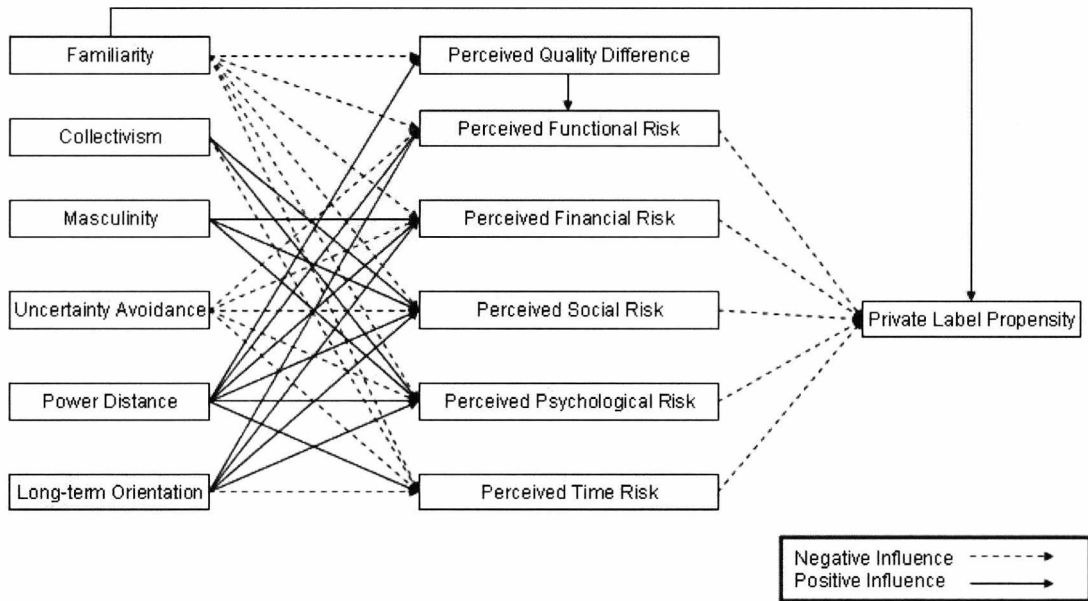
- the macro market (e.g. market structure, maturity of private labels, economic climate)
- the perceptions of private labels (e.g. quality, risks) amongst shoppers; and
- the characteristics of shoppers (e.g. age, gender, income, education)

This categorisation is consistent with the findings from the literature review and provides the rationale for the proposed conceptual framework (Figure 4.1). The dependent variable is the propensity to purchase private labels (measured by the frequency of purchase) in favour of national brands, in the context of a regular supermarket shopping mission.

As Hofstede's scales are well established to measure cultural dimensions and have been used in past research examining cross-cultural differences between countries (see Chapter Three), the five cultural dimensions have been adapted as independent variables in this study, mediated by five dimensions of perceived risk (functional, financial, social, psychological and time) and moderated by factors that are designed to capture the individual's perceptions of

and experience with private label products (familiarity and perceived quality difference).

Figure 4.1 Theoretical Framework of Private Label Propensity



In the following sections the different stages of the proposed conceptual framework are discussed in turn and an attempt is made to justify the hypothesised relationships between the explanatory variables, with reference to the literature, where appropriate, and with the use of examples specific to the context of supermarket purchasing behavior.

4.1 Dependent Variable – Propensity to Purchase Private Label

The objective of consumer research is to discover what factors influence an individual's usage of available resources during the consumption process in order to predict consumer behavior. Broderick (1996) concludes that there are three categories of response which are particularly important for individual consumer behavior:

- purchasing behavior – the purchases the consumer makes and the activities before making them;

- consumption behavior – how the consumer uses the product after purchasing it;
- communication behavior – the communication that the consumer provides to other consumer or marketers.

For the marketers, purchasing behavior is the most immediate significant activity needed to be analysed and understood. Grewal and Levy (2007) also identified private label purchase behavior as a gap in marketing research. Therefore, this study will focus on supermarket shoppers' individual purchasing behavior of private label (private label propensity) only.

Private label propensity is the probability of supermarket own brand purchase (how disposed are people to supermarket private labels at all). It will be measured by the frequency of purchase (to what extent are private label purchases habitual and limited to staple commodities or extend to premium products purchased less frequently, for special occasions). This measure has been used by Dick et al (1995) to measure private label propensity in different product categories.

4.2 Independent Variables - Cultural Values

In marketing psychology, culture is defined as 'the sum total of learned beliefs, values, and customs that serve to direct the consumer behavior of members of a particular society' (Schiffman and Kanuk 1994). Consumer culture theory explores how consumers actively rework and transform symbolic meaning encoded in advertisements, brands, retail settings, or material goods to manifest their particular personal and social circumstances and further their identity and lifestyles goals (Arnould and Thompson 2005). Chapter Three pointed out that culture-based value has a significant influence on purchasing behavior and buying decisions.

More specifically, a recent study that used culture as an explanatory variable to compare private label purchasing behavior in the United States and Thailand (Shannon and Mandhachitara, 2005) revealed that culture (eg. Individualism and collectivism) has a significant effect on six out of the eight private label grocery shopping attitudes and behavior measures employed: familiarity, perceived quality differences, perceived risk, time pressure, shopping group size and price signalling. Also, Steenkamp and Heerde et al (2007) introduced another two cultural dimensions – masculinity and uncertainty avoidance into their study in order to study the drivers of consumers' willingness to pay a price premium for national brands over private labels.

The literature review in Chapter three revealed that, although Hofstede's theory has been criticized by many researchers, it is still the most widely used cultural dimension in marketing research. Thus, Hofstede's (2001a) five cultural dimensions have been adopted in the proposed theoretical framework as independent variables. In seeking to establish the extent to which cultural dimensions are influential in private label purchase behavior, a comparison of supermarket purchasing behavior in two countries (the UK and China) with such diverse cultures and in different stages of growth of supermarket and retailing development of private label strategies is highly relevant.

4.3 Mediating Variables - Perceived Risks

Whilst the main focus of this study is the impact of culture on supermarket purchasing behavior, it is recognised that the relationship between culture and purchase decision is unlikely to be direct or absolute, but rather indirect and relative. Thus, in developing the conceptual framework it was deemed necessary to find a mediating construct, linking culture (Hofstede's dimensions) with behavior (the propensity to purchase supermarket private labels).

According to Baron and Kenny (1986) a mediator variable accounts for the relationship between the predictor and the (specific) criterion. Mediators explain how external physical events take on internal psychological significance. Whereas moderator variables specify when certain effects will hold, mediators speak to how or why such effects occur.

Since the outcome of a choice decision can only be known in the future, the consumer is forced to deal with uncertainty and to the extent that consumers realize they may not attain all of their buying goals, risk is perceived (Mitchell 1998). In his seminal paper, Bauer (1960) identified that all types of consumer behavior involves risk because purchasing decisions produce consequences which cannot be anticipated with certainty and some are likely to be unpleasant.

Chapter Three shows the literature on perceived risk in consumer behavior is vast and well-established (Popielarz 1967; Kaplan, Szybillo et al. 1974; Agarwal and Tea 2004). In particular, it has been used as a mediating variable in previous studies of private label purchasing behavior. For example, Semeijn and Riel et al (2004) found the relationship between store image and consumer attitude towards private labels to be mediated by the perceived psychological, financial and functional risks associated with private label product.

More specifically, Mieres et al (2006) concluded that the level of perceived risk associated with private label is a crucial factor in determining the level of purchase propensity. The differences in perceived risk dimensions between private labels and national brands may affect the propensity of supermarket shoppers to purchase the former. Thus, the model seeks to combine cultural factors with risk dimensions, hypothesising that risk perceptions will be influenced by the cultural disposition of individual shoppers.

As the literature review highlighted, different researchers have categorized perceived risks associated with the purchase of a product/brand in different ways (Roselius 1971; Jacoby and Kaplan 1972; Peter and Ryan 1976). However, there are seven key dimensions of perceived risk that have been identified which appear relevant to this study: functional, financial, social, physical, psychological, time and performance.

According to Semeijin et al (2004), in the case of groceries, functional and physical risks appear to be equivalent: a product that is not compliant with functional (quality) is unlikely to perform as expected. In addition, Lim (2003) argues that performance risk is similar to the usefulness or functionality of products. Therefore, for the purpose of this research, it is proposed that functional, physical and performance risks can be combined into one (physical attribute orientated) dimension – functional risk.

4.4 Other Moderating Variables

'In general terms, a moderator is a qualitative (e.g., sex, race, class) or quantitative (e.g., level of reward) variable that affects the direction and/or strength of the relationship between an independent or predictor variable and a dependent or criterion variable. Specifically in correlation analysis, a moderator is a third variable that affects the zero-order correlation between two other variables. In the more familiar analysis of variance (ANOVA) terms, a basic moderator effect can be represented as an interaction between a focal independent variable and a factor that specifies the appropriate conditions for its operation.' (Baron and Kenny 1986).

Batra and Sinha (2000) proposed four consumer-level factors which they argue moderate the likelihood of success of private labels – consequences of purchase mistake, degree of quality variation in category, 'search' versus

'experience' nature of category and price consciousness. Price, quality, time, familiarity, and product category are the elements which have been mentioned most frequently in previous research of private label purchase behavior (Bettman 1974; Richardson, Jain et al. 1996; Ailawadi, Neslin et al. 2001; Veloutsou, Gioulistanis et al. 2004; Jin and Suh 2005; Shannon and Mandhachitara 2005; Mieres, Martin et al. 2006; Martinez and Montaner 2007). In this research, some of these variables will be adapted and used to moderate the relationship between perceived risk and private label propensity.

4.4.1 Perceived Quality Difference

Recently, retailers have begun to enhance the quality of their private labels in order to attract other consumer segments apart from price sensitive consumers. Variations in perceived product quality and product price perception between national brands and private labels have long been studied. Veloutosou et al (2004) found that private labels have evolved from low price - low quality products to more competitive pricing, yet better quality products. In this study, perceived quality refers to the consumer's judgement about a product's overall excellence or superiority (Cheng, Chen et al. 2007). One previous study found that the perceived quality differential in certain categories is the most important reason consumers are willing to pay more for national brands (Sethuraman and Cole 1997).

Another study empirically suggests a moderating effect of perceived quality variation on propensity to purchase private labels - Batra and Sinha (2000) found that perceived quality variation between private labels and national brands indirectly impacts on private label purchase via consequences of making a mistake in brand choice. Therefore, perception of quality difference between private label and national brands is likely to be an important factor influencing the propensity to purchase the former.

4.4.2 Familiarity

Habits are learned behaviors and supermarket shopping is a regular event that encourages habitual purchasing decisions. However, due to the different stages of development in the supermarket sectors of the UK and China, it is likely that UK supermarket shoppers have learned considerably more about private label products and are more familiar with them and the perceived risks associated with them than are supermarket shoppers in China.

Familiarity denotes brand comprehension, product knowledge, or skill in judging the criteria needed to evaluate products (Howard and Sheth 1969). It reflects perceived risk and the amount of information available to the consumer about private label brands. Especially for inexpensive, frequently bought items, familiarity may be sufficient for choice, even in the absence of a well-formatted attitude (Park and Lessig 1981).

As a moderating independent variable, it has been applied in many studies associated with private label purchase behavior (e.g. (Dick, Jain et al. 1995; Baltas 1997). Consumers familiar with private brands consider these products with a greater level of information and confidence. Therefore, given the stereotype of private label as 'risky' alternatives, familiarity is viewed as having direct or indirect effect (moderating or mediating role) on perceived risks, perceived quality difference and propensity to purchase private labels (Richardson, Jain et al. 1996).

So far, the independent and dependent variables have been identified on the basis of literature review in Chapter Three. The relationships between the variables will be further explained in the following sections in order to propose the hypotheses of this study.

4.5 Research Hypotheses

In this section the relationships between the cultural values and the mediating and moderating variables and how they influence the propensity to purchase supermarket private label products are formally presented through a number of research hypotheses.

4.5.1 Cultural Values and Perceived Risks

To build a theory based on the influence of culture value orientation, one must first link observed cultural value orientation with specific dimensions of culture that are hypothesised to have produced the differences between each observed group (Leung and Bond 1989). The major hypotheses relate to the relationship between the cultural dimensions and the different types of perceived risk associated with the propensity of supermarket shoppers to purchase private labels.

Collectivism and Perceived Risks

The literature shows that the relationship between collectivism/individualism and perceived risk in general has been discussed (Brenot, Bonnefous et al. 1998; Weber and Hsee 1998; Choi and Geistfeld 2004). On the one hand, Tinsley and Pilluta (1998) stated the self-enhancement versus self-transcendence cultural dimension is consistent with the individualism-collectivism construct. High self-transcendence (ie low individualism) implies greater consumer preference for interrelationships with others. Hence, one can expect that the perceived social and psychological risk associated with purchase decisions is high.

On the other hand, the study by of Keh and Sun (2008) showed that in China, self-transcendence is negatively related to personal risk, therefore,

individualism is negatively related to social risk and psychological risk. Thus, the study expects that the level of collectivism has positive impact on perceived social-psychological risk associate with the propensity to purchase private label.

Also, in comparison with shoppers from a collectivist society, shoppers from western individualist societies are more likely to be subjected to time pressure (Shannon and Mandhachitara 2005). In individualist societies, 'Time' is a relatively personal concept. Individuals tend to dominate time according to their own needs. Time pressure is created when individuals feel that time left can not satisfy their needs. In a culture characterised by great time pressure, shopping enjoyment can be diminished and shopping may become a more utilitarian or a chore – supermarket shopping in particular (Ailawadi, Neslin et al. 2001).

But in collective society, time is more likely to be managed according to group needs. For example, in China, shopping has been viewed as an opportunity to spend some quality times with family and friends. Therefore, time pressure in terms of shopping is rare. Thus, in this study we might expect to find a negative relationship between collectivism and perceived time risk. The hypotheses towards the relationship between collectivism and perceived risks are proposed as below:

Hypothesis 1 *The level of collectivism affects perceived risks associated with the propensity to purchase private label.*

Hypothesis 1.1 The level of collectivism has positive impact on the perceived social risk associated with the propensity to purchase private label.

Hypothesis 1.2 The level of collectivism has positive impact on the perceived psychological risk associated with the propensity to purchase

private label.

Hypothesis 1.3 The level of collectivism has negative impact on the perceived time risk associated with the propensity to purchase private label

Masculinity and Perceived Risks

As wealth is the main way to represent one's social status in masculine society rather than quality of life, personal saving has been a tradition (Hofstede 2001a). When making purchasing decisions, in order to avoid unnecessary financial loss, people from a masculine culture are likely to perceive more financial risk than people from a feminine culture. Thus, in the context of this research, supermarket shoppers in a masculine society would purchase less private label product as they would predict higher financial risk than those in a feminine society.

According to De Mooij and Hofstede (2002), in masculine cultures the dominant values are achievement and success. The dominant values in feminine cultures are caring for others and quality of life. It means in masculine cultures, social status is important to show success, but not in feminine cultures. Wayne et al (2001) find that individual masculinity is more strongly related to self-esteem than individual femininity. Also, in masculine cultures with high self-enhancement and self-esteem, people are more likely to categorize themselves in relation to others, whereas it is more unlikely in feminine cultures where people are less inclined to consider themselves as 'better' or 'worse' than others (De Mooij 2001).

Therefore, the research proposes that the traditional private labels with lower brand equity and less brand personality may appeal more to feminine

culture than masculine societies. People from masculine cultures may perceive greater social and psychological risk, as private labels may not represent their social status and personality. The following hypotheses are proposed according to the discussion above:

Hypothesis 2 *The level of masculinity affects perceived risks associated with the propensity to purchase private label.*

Hypothesis 2.1 The level of masculinity has positive impact on the perceived financial risk associated with the propensity to purchase private label.

Hypothesis 2.2 The level of masculinity has positive impact on the perceived social risk associated with the propensity to purchase private label.

Hypothesis 2.3 The level of masculinity has positive impact on the perceived psychological risk associated with the propensity to purchase private label.

Uncertainty Avoidance and Perceived Risks

Uncertainty Avoidance is the extent to which people feel threatened by uncertainty and ambiguity and try to avoid them. A previous study noted a general relationship between the cultural value of uncertainty avoidance and risk perception toward product purchase (Mitchell and Vassons 1997). In a high uncertainty avoidance culture, people perceive more risks, and feel more uncertainty during consumption.

According to the cognitive dissonance theory (Festinger 1957), one expects that risk produces cognitive dissonance particularly when individuals are risk averse. The propensity towards risk aversity is more likely to be high in societies

characterised by higher uncertainty avoidance.

Keh and Sun (2008) conclude that the high level of conservatism amongst Chinese people is related to their desire to reduce exposure to both personal and non-personal risks. A conservative culture implies stronger uncertainty avoidance, and uncertainty avoidance is positively related to perceived social risk, perceived psychological risk, perceived financial risk and perceived performance risk. Thus, in the context of this research, given the relatively immature status of the Chinese supermarket sector, at least compared with that of the UK, it might be expected that Chinese supermarket shoppers are less likely to purchase supermarket own-label products than UK shoppers, for fear of the unknown. In the light of the study, the following hypotheses associated with the relationship between uncertainty avoidance and perceived risks are listed below:

Hypothesis 3 *The level of uncertainty avoidance has negative impact on perceived risks associated with the propensity to purchase private label.*

Hypothesis 3.1 The level of uncertainty avoidance has negative impact on the perceived functional risk associated with the propensity to purchase private label.

Hypothesis 3.2 The level of uncertainty avoidance has negative impact on the perceived financial risk associated with the propensity to purchase private label.

Hypothesis 3.3 The level of uncertainty avoidance has negative impact on the perceived social risk associated with the propensity to purchase private label.

Hypothesis 3.4 The level of uncertainty avoidance has negative impact on the perceived psychological risk associated with the propensity to purchase private label.

Hypothesis 3.5 The level of uncertainty avoidance has negative impact on the perceived time risk associated with the propensity to purchase private label.

Power distance and Perceived Risks/Perceived Quality Difference

De Mooij (2004) found that power distance was significantly related to mineral water consumption in Europe, for two reasons: a) the need for higher quality (water purity in this case) is higher in high power distance cultures and b) in cultures of high power distance, people tend to read more information labels on products than in cultures of low power distance. This means that in higher power distance cultures shoppers are more likely to be concerned that the product they purchased may not perform the way they expected than in lower power distance culture. Thus, in the context of this research, people from cultures of higher power distance are more likely to perceive private labels as having higher functional risks and are therefore less likely to purchase them, other things being equal.

In high power distance societies where people believe inequality in life, wealth, social status and use of time can represent who they are. These factors are relatively important in cultures of large power distance. Individuals and groups exhibiting high power distance particularly care about whether their brand/product choices will bring them closer to or distinguish themselves from others (Hofstede 2001b). Thus, in the context of this research, people from cultures of high power distance are more likely to perceive more financial, social risk, psychological risks and time risks. They are therefore less likely to purchase them, other things being equal.

Similarly, in terms of perceived quality difference between private labels and national brands, as it was mentioned in literature review, if people strongly

believe inequality in life, they will more likely to seek for brands which have strong brand equity so that can represent either their social status or lifestyle (De Mooij 2004). It means people from high power distance society will perceive the quality of private labels is worse than national brands. Thus, the hypotheses generated from the discussion above are listed below:

Hypothesis 4 *The level of power distance affects perceived risks/perceived quality difference associated with the propensity to purchase private label.*

Hypothesis 4.1 The level of power distance has positive impact on the perceived functional risk associated with the propensity to purchase private label.

Hypothesis 4.2 The level of power distance has positive impact on the perceived financial risk associated with the propensity to purchase private label.

Hypothesis 4.3 The level of power distance has positive impact on the perceived social risk associated with the propensity to purchase private label.

Hypothesis 4.4 The level of power distance has positive impact on the perceived psychological risk associated with the propensity to purchase private label.

Hypothesis 4.5 The level of power distance has positive impact on the perceived time risk associated with the propensity to purchase private label.

Hypothesis 4.6 The level of power distance has positive impact on the perceived quality difference associated with the propensity to purchase private label.

Long-term Orientation and Perceived Risks

Keh and Sun's (2008) study found a positive correlation between long-term orientation and non-personal perceived risks in both China and Singaporean samples while studying the complexity of perceived risks in service marketing. However, there was limited discussion of the facts that may account for this relationship.

Values associated with long-term orientation are thrift and perseverance, whilst values associated with short-term orientation are respect for tradition, fulfilling social obligations and protecting one's 'face' (Hofstede 2001a). Individuals from short-term orientation culture expect quick results, have a smaller share of additional income saved and consider status as a less major issue in relationships in comparison to long-term orientation.

Therefore, this research proposes people from a long-term orientation culture may perceive more functional and financial risk because they consider the consequences of making purchase decision (e.g. negative performance may cause health issue; losing money by purchasing the wrong products/brands may reduce next shopping budget) to a greater extent than people from short-term orientation culture.

Although the literature emphasises that a preference for discounters is not necessarily related to long-term orientation in retailing, what appeals to long-term orientation cultures are promotional activities that offer discounts or long-term saving opportunities (De Mooij and Hofstede 2002). Thus, in a culture of long term orientation supermarket shoppers are more likely to be attracted by the price incentives associated with private labels, but are likely to be slower adopters in the presence of well established national brands.

According to Bao, Zhou and Su (2003), face consciousness is defined as people's desire to enhance, maintain, and avoid losing face in relation to other people in social activities. Although, Hofstede (2001a) believed that face consideration is common but is considered a weakness in long-term orientation culture in comparison to short-term orientation culture, other researchers strongly believe it plays a more important role in consumption behavior, especially in Asian countries such as China which is considered as having long-term orientation culture (Mao 1994; Tse 1996; Bao, Zhou et al. 2003).

In long-term orientated cultures, individuals are concerned about their choices being approved by others and will perceive greater social and psychological risks. They purchase certain products/brands sometimes only because: 'my friends do so'; or 'it can bring me a sense of prestige.' Therefore, the research proposes that there is a positive relationship between long term orientation Index and perceived social and psychological risks.

In addition, Svenson's (1984) study shows a correlation between perceived time risk and long-term orientation. Also, De Mooij and Hofstede's (2002) study revealed that long-term orientation was associated with lower willingness to pay for convenience. Moreover, in countries with a culture of long-term orientation, people spend more time on shopping while evaluating the function and financial risks of purchasing.

Therefore, the potential time lost may not be viewed as a critical factor in the purchasing-decision process. In countries with short-term orientation shoppers attach greater significance to convenience and the ability to complete the shopping mission quickly and easily. Thus, in the context of this research, a long term orientation is likely to result in perceiving less time risk and the shoppers purchasing more private label products in staple (commodity) categories, where price is the major determinant. In the light of this study, the following hypotheses

are proposed:

Hypothesis 5 *The level of long-term orientation index affects perceived risks associated with the propensity to purchase private label.*

Hypothesis 5.1 The level of long-term orientation index has positive impact on the perceived functional risk associated with the propensity to purchase private label.

Hypothesis 5.2 The level of long-term orientation index has positive impact on the perceived financial risk associated with the propensity to purchase private label.

Hypothesis 5.3 The level of long-term orientation index has positive impact on the perceived social risk associated with the propensity to purchase private label.

Hypothesis 5.4 The level of long-term orientation index has positive impact on the perceived psychological risk associated with the propensity to purchase private label.

Hypothesis 5.5 The level of long-term orientation index has negative impact on the perceived time risk associated with the propensity to purchase private label.

4.5.2 Perceived Risks and Propensity to Buy Private Label

Consumers perceive risk in purchasing most products. Perceived risk is the expected negative utility associated with the purchase of a particular product or brand (Skelly 1986). The findings of Peter and Ryan (1976) suggest that consumers who are highly risk averse view products and brands more in terms of potential losses than do those who are less risk averse, who focus on the likely benefits (Peter and Ryan 1976).

More specifically, the literature review has revealed that the level of risk associated with store brands is crucial to determine private label propensity (Peterson and Wilson 1985; Montgomery and Wernerfelt 1992; Richardson, Jain et al. 1996; Mitchell 1998; Erdem, Zhao et al. 2004). Mieres et al (2006) confirmed that the existence of significant differences between private labels and national brands with regard to six perceived risk dimensions (functional risk, financial risk, social risk, physical risk, psychological risk and time risk). They concluded that private label brands are perceived as riskier alternatives than national brands, in particular functional risk and time risk.

Functional Risk

When consumers perceive private brands as being of much lower quality than national brands, there may be a higher probability of lost utility as a result of purchasing a product that does not meet expectations, regardless of how low the price is, relative to competing brands. Thus, it is argued that the higher the perceived functional risk associated with a private label the less likely a supermarket shopper will be to purchase it, other things being equal (Dick, Jain et al. 1995). The end of life products are often discounted to compensate for the perceived functional risk associated with products at or near the end of their shelf-life.

Financial Risk

In the case of financial risk, the greater the financial gamble the less likely someone is to purchase (*ceteris paribus*) (Mieres, Martin et al. 2006). Thus, if private labels are perceived to be priced high relative to their branded competitors, supermarket shoppers are less likely to purchase them, other things being equal. Store specific factors, such as availability, merchandising and promotional activity may mitigate against this. Indeed, given the trade-off

between quality (perceived functional risk), and price (perceived financial risk) it is proposed that these two components of the perceived risk construct are combined to capture the notion of 'value for money'. The latter construct is in turn moderated by the degree to which shoppers (individuals and as a whole) are familiar with the relative performance of private labels vis-à-vis national brands.

Social Risk

Social risk relates to the way in which purchasing decisions can impact negatively or positively on the way the purchaser is perceived by others (e.g. peer group, family, social network). Thus, in certain cases, the purchase of private label supermarket products may be regarded as behavior befitting of a certain social class (e.g. lower income) or a group of consumers (price sensitive) who care little for quality or who cannot afford to purchase national brands, typically sold at a premium (Zielke and Dobbeistein 2007). This category of perceived risk is likely to impact as much (if not more) on the choice of supermarket (e.g. niche versus discount) as it is on the choice between national and private label brands.

Psychological Risk

Related to (but distinct from) perceived social risk, is the perceived risk associated with self-esteem (as opposed to the perceptions of others) as a result of the purchase decision an individual makes (Jacoby and Kaplan 1972). Thus, in the case of private labels, in certain instances, the decision to purchase private labels in preference to national brands, may have a detrimental impact on the purchaser's level of self-esteem, should the private label substitute be perceived as substantially inferior to the branded alternatives.

The few studies that have been undertaken in this area suggest that perceived psychological and social risks are negatively related to the willingness to buy private labels (Semeijn, Riel et al. 2004; Mieres, Martin et al. 2006; Martinez and Montaner 2007). When consumers predict that purchasing private label products may cause 'losing face', particularly in collective and high power distance cultures, they are more likely to avoid purchasing them.

Time Risk

The final component of the perceived risk construct is the perceived time risk. This relates to the potential loss of time in the event of product failure as well as the time associated with determining whether or not to purchase one product over another (Jacoby and Kaplan 1972). When perceived time risk is high, shoppers are more likely to stay with trusted brands and less likely to try new ones, other things being equal (Mitchell and Harris 2005). Moreover, in the context of supermarket shopping, time is often limited and shoppers may seek to navigate the supermarket as quickly as possible. Under these circumstances, tried and trusted brands become habitual purchases, with limited time (involvement) made in brand choice.

As already mentioned, the pressure of time has been demonstrated to have an impact on shopping behavior, and to influence the choice of known versus unknown brands, particularly in cultures that emphasise the minimisation of time taken to spend money (Ailawadi, Neslin et al. 2001). People who are constrained by time pressure will perceive more time risk associated with non-habitual product choices. The literature review has mentioned that the concept of private label brand is still new and developing particularly in China. Thus, the pressure of time is more likely to result in shoppers preferring known brands to private label products.

Taking the above mentioned considerations into account, the study proposes that the differences in risk dimensions between private and national brands will affect in negatively the propensity to buy private labels.

Hypothesis 6 *The level of perceived risks has negative impact on the propensity to purchase private label.*

Hypothesis 6.1 The level of perceived functional risk has negative impact on the propensity to purchase private label.

Hypothesis 6.2 The level of perceived financial risk has negative impact on the propensity to purchase private label product.

Hypothesis 6.3 The level of perceived social risk has negative impact on the propensity to purchase private label.

Hypothesis 6.4 The level of perceived psychological risk has negative impact on the propensity to purchase private label.

Hypothesis 6.5 The level of perceived time risk has negative impact on the propensity to purchase private label.

4.5.3 Familiarity, Perceived Quality Difference, Perceived Risks and Propensity to Buy Private Label

Familiarity denotes brand comprehension, product knowledge, or skills judging the criteria needed to evaluate products (Howard and Sheth, 1969). Bettman (1974) posits that private label familiarity serves to increase the propensity to purchase private labels by decreasing the perceived risk and perceived quality variation associated with these brands. When familiarity is high, the perceived danger of selecting private labels decreases and the certainty that private labels offer an acceptable level of quality increases. Which means the more consumers know about private labels, the less they will perceive quality differences between private labels and national brands, because the main

difference between national brands and private labels are their supply chains and brand personalities, not quality.

Moreover, the study by Richardson et al (1996) revealed that the greater the familiarity with private labels the greater the propensity to purchase them, the lower the perceived risk and the lower perceived quality difference between national and private brand offerings. Thus, we propose familiarity has indirect influence on purchasing private label product through perceived risks and perceived quality difference between private labels and national brands. The relationship between familiarity and propensity of private label product is negatively mediated by five perceived risks dimensions. There is also a negative relationship between familiarity and perceived quality difference of private labels and national brands.

In addition, Dick et al (1995) concluded that private label prone consumers exhibit extremely greater familiarity and usage experience with private label brands than those reluctant to buy them. Lack of familiarity contributes to the elimination of brands from the consideration set for purchase decision. Their result has been confirmed by later studies (Richardson, Jain et al. 1996; Baltas 1997).

As previously noted (Chapter Two), familiarity is likely to be much higher in the UK (where private label products have been in existence for decades and compete at all levels, not just price) with national brands, than in China (where the market share of supermarkets is low, but rising, and the range of private label products offered by supermarkets is substantially less than is the case in the UK). Thus, this research also proposes a direct positive relationship between familiarity and propensity of private label product. The hypotheses associated with familiarity and the other variables are listed below:

Hypothesis 7 *The level of familiarity has negative impact on perceived risks/perceived quality difference associated with the propensity to purchase private label.*

Hypothesis 7.1 The level of familiarity has negative impact on the perceived functional associated with the propensity to purchase private label.

Hypothesis 7.2 The level of familiarity has negative impact on the perceived financial risk associated with the propensity to purchase private label.

Hypothesis 7.3 The level of familiarity has negative impact on the perceived social risk associated with the propensity to purchase private label.

Hypothesis 7.4 The level of familiarity has negative impact on the perceived psychological risk associated with the propensity to purchase private label.

Hypothesis 7.5 The level of familiarity has negative impact on the perceived time associated with the propensity to purchase private label.

Hypothesis 7.6 The level of familiarity has negative impact on the perceived quality difference associated with propensity to purchase private label.

Hypothesis 7.7 The level of familiarity has positive impact on the propensity to purchase private label.

4.5.4 Perceived Quality Difference and Perceived Functional Risk

Hypothesis 8 *The level of perceived quality difference affects the perceived functional risk associate with the propensity to purchase private label.*

Richardson *et al.* (1996) discovered that the greater the perceived quality variation between national and private brand grocery items, the greater was the perceived risk associated with private brands. Generally speaking, a product/brand's quality is its performance and function. As highlighted by Dunn *et al.* (1986), consumers perceived significant performance (functional) risk of national, private and generic brands, one of the reasons is the quality difference they perceived on the basis of familiarity towards these brands. Thus, in the context of this research, we propose a positive relationship between perceived quality difference between private label and national brands and perceived functional risk associated with the propensity to buy private labels.

Although a few previous studies found that perceived quality variation between private label and national brand has a significant impact on shoppers' intention to purchase the former (Jin and Suh 2005; Mieres, Martin *et al.* 2005), this direct result did not show in some other key studies (Richardson, Jain *et al.* 1996). Also, because the development of private labels in the UK and China is at different stages, the quality difference between national brands and private labels could also be distinct. Therefore, in order to avoid the inequality measurement, the direct relationship between perceived quality differences will not be tested in this research.

4.6 Summary

Although, private labels are well established in developed markets, where retailing is a mature industry, they are less well-known and have received little attention by researchers in developing countries. Despite the fact that most of the world's top retail companies are from western countries, many of them, such as Carrefour and Tesco, have significant investment and market shares in developing and emerging markets. However, the combination of cultural, competitive and legal differences between international markets makes it

extremely difficult for even those retailers with a strong domestic private label to replicate their offerings abroad (Waldman 1978; Burt 1989).

Therefore, an understanding of how and why consumers respond either positively or negatively to the introduction of private label in different and culturally distinct markets should be of considerable interest to retail managers and marketing researchers alike. Specially, in some developing markets where private label brands are less developed even the phenomenon has existed for decades. The review of the literature failed to identify any discussion of this situation from a cross-cultural perspective. Because of the lack of information and the potential influence, it is important to explore differential behavior with respect to private label products from a cross-cultural perspective.

A theoretical framework has been outlined (Figure 4.1) and the hypotheses derived and justified (Table 4.1), on the basis of the extant literature and personal reflections on the theory and practice of private label in the two countries being explored – China and the UK. The next chapter describes and justifies the research methodology adopted in order to test the validity of the proposed conceptual framework and the individual hypotheses.



Table 4 1 Research Hypotheses

Key Hypotheses	Sub-hypothesis
<p>Hypothesis 1 The level of collectivism affects perceived risks associated with the propensity to purchase private label.</p>	1.1 The level of collectivism has positive impact on the perceived social risk associated with the propensity to purchase private label.
	1.2 The level of collectivism has positive impact on the perceived psychological risk associated with the propensity to purchase private label.
	1.3 The level of collectivism has negative impact on the perceived time risk associated with the propensity to purchase private label.
<p>Hypothesis 2 The level of masculinity affects perceived risks associated with the propensity to purchase private label.</p>	2.1 The level of masculinity has positive impact on the perceived financial risk associated with the propensity to purchase private label.
	2.2 The level of masculinity has positive impact on the perceived social risk associated with the propensity to purchase private label.
	2.3 The level of masculinity has positive impact on the perceived psychological risk associated with the propensity to purchase private label.
<p>Hypothesis 3 The level of uncertainty avoidance has negative impact on perceived risks associated with the propensity to purchase private label.</p>	3.1 The level of uncertainty avoidance has negative impact on the perceived functional risk associated with the propensity to purchase private label.
	3.2 The level of uncertainty avoidance has negative impact on the perceived financial risk associated with the propensity to purchase private label.
	3.3 The level of uncertainty avoidance has negative impact on the perceived social risk associated with the propensity to purchase private label.
	3.4 The level of uncertainty avoidance has negative impact on the perceived psychological risk associated with the propensity to purchase private label.
	3.5 The level of uncertainty avoidance has negative impact on perceived time risk associated with the propensity to purchase private label product.
<p>Hypothesis 4 The level of power distance affects perceived</p>	4.1 The level of power distance has positive impact on perceived functional risk associated

risks/perceived quality difference associated with the propensity to purchase private label. associated	with the propensity to purchase private label product.
	4.2 The level of power distance has positive impact on perceived financial risk associated with the propensity to purchase private label product.
	4.3 The level of power distance has positive impact on perceived social risk associated with the propensity to purchase private label product.
	4.4 The level of power distance has positive impact on perceived psychological risk associated with the propensity to purchase private label product.
	4.5 The level of power distance has positive impact on perceived time risk associated with the propensity to purchase private label product.
	4.6 The level of power distance has positive impact on perceived quality difference associated with the propensity to purchase private label product.
Hypothesis 5 The level of long-term orientation index affects perceived risks associated with the propensity to purchase private label.	5.1 The level of long-term orientation index has positive impact on perceived functional risk associated with the propensity to purchase private label product.
	5.2 The level of long-term orientation index has positive impact on perceived financial risk associated with the propensity to purchase private label product.
	5.3 The level of long-term orientation index has positive impact on perceived social risk associated with the propensity to purchase private label.
	5.4 The level of long-term orientation index has positive impact on the perceived psychological risk associated with the propensity to purchase private label.
	5.5 The level of long-term orientation index has negative impact on the perceived time risk associated with the propensity to purchase

	private label.
Hypothesis 6 The level of perceived risk has negative impact on the propensity to purchase private label.	6.1 The level of perceived functional risk has negative impact on the propensity to purchase private label.
	6.2 The level of perceived financial risk has negative impact on the propensity to purchase private label.
	6.3 The level of perceived social risk has negative impact on the propensity to purchase private label.
	6.4 The level of perceived psychological risk has negative impact on the propensity to purchase private label.
	6.5 The level of perceived functional risk has negative impact on the propensity to purchase private label.
Hypothesis 7 The level of familiarity has negative impact on perceived risks/perceived quality difference associated with the propensity to purchase private label.	7.1 The level of familiarity has negative impact on the perceived functional associated with the propensity to purchase private label.
	7.2 The level of familiarity has negative impact on the perceived financial risk associated with the propensity to purchase private label.
	7.3 The level of familiarity has negative impact on the perceived social risk associated with the propensity to purchase private label.
	7.4 The level of familiarity has negative impact on the perceived psychological risk associated with the propensity to purchase private label.
	7.5 The level of familiarity has negative impact on the perceived time associated with the propensity to purchase private label.
	7.6 The level of familiarity has negative impact on the perceived quality difference associated with propensity to purchase private label.
	7.7 The level of familiarity has positive impact on the propensity to purchase private label.
Hypothesis 8 The level of perceived quality difference has positive impact on the perceived functional risk associated with the propensity to purchase private label.	

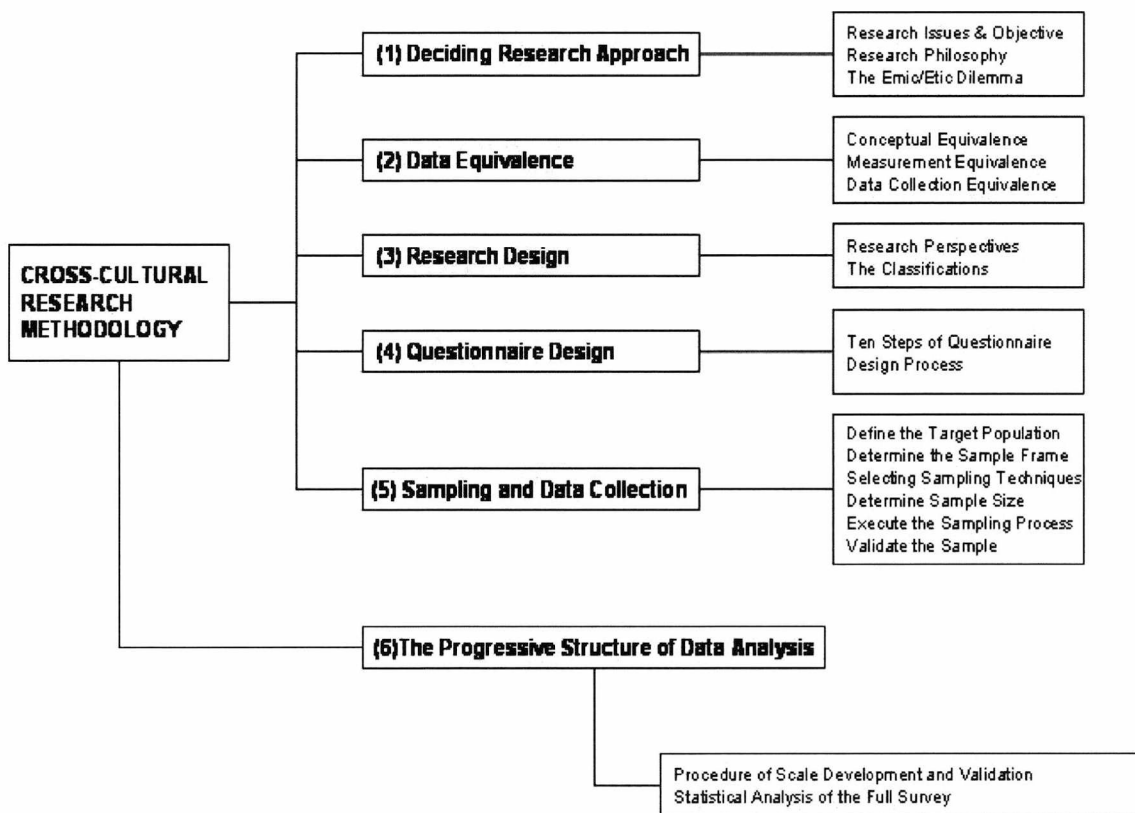
CHAPTER FIVE
RESEARCH METHODOLOGY

5.0 Introduction

The literature review (Chapter Three) and the theoretical framework (Chapter Four) have identified a research gap in cross-cultural perspectives on private label products in the international retail environment. More specifically, perceived risk has been identified as a mediator and cultural value as a moderator of a supermarket shopper’s propensity to purchase private label products. Understanding this construct will be valuable for retail managers and of interest to marketing researchers.

This chapter describes and justifies the research methodology adopted and comprises five sections (Figure 1).

Figure 5.1 Structure of Methodology



In the first section, the main research issues will be outlined with reference to the theoretical framework. The key hypotheses are developed on the basis of the research problems and research philosophy. The second section establishes the comparability for a valid cross-cultural research by demonstrating the equivalence of psychological concepts. The research design in the third section demonstrates a broad point of view on research design classification. The details of questionnaire design and piloting study are presented in section four followed by an explanation of the sampling and data collection techniques in section five. Finally, the outline of the statistical techniques is specified to prepare for the data analyse in Chapters Six and Seven.

5.1 Selecting the Right Research Approach

5.1.1 Research Issues and Objectives

The literature review shows there is a gap in our knowledge of the impact that cultural values have on perceived risks and the propensity for supermarket shoppers to purchase private label products (Grewal and Levy 2007). Specifically, this research seeks to add to existing knowledge in the following areas:

- ◆ the influence of culture on perceived risks;
- ◆ how perceived risks and other factors impact on the propensity to buy private label products;
- ◆ differences in the determinants of private label shopping behavior between two cultures (UK and China) with distinctly different cultural profiles

5.1.2 Research Philosophy

For this research, selecting an overall research philosophy is the choice between two broad paradigms: positivism (also defined as empiricist or objectivist view of knowledge) and social constructionism (referred to as phenomenological, interpretivist or subjectivist view). When studying consumer behavior, the positivist paradigm uses the methods and principles of the natural science model (Ehrenberg 1988; Hunt 1993); the social construction paradigm defines the research towards consumer behavior as a way of interpreting the inter-subjective meaning through how consumers view the world (Buttle 1994). Ehrenberg (1988) summarize eight features of social constructionist research and positivist research (Table 5.1).

Table 5.1 Contrasting Implications of Positivism and Social Construction

	Positivism	Social Constructionism
The observer	must be independent	is part of what is being observed
Human interests	should be irrelevant	are the main drivers of science
Explanations	must demonstrate causality	aim to increase general understanding of the situation
Research progresses through	hypotheses and deductions	gathering rich data from which ideas are induced
Concepts	need to be operationalized so that they can be measured	should incorporate stakeholder perspectives
Units of analysis	should be reduced to simplest terms	may include the complexity of 'whole' situations
Generalization through	statistical probability	theoretical abstraction
Sampling requires	large numbers selected randomly	small numbers of cases chosen for specific reasons

Source: Ehrenberg (1988)

In this study, a positivist philosophy is adopted to empirically test similarities and differences in cultures and perceived risks in the context of supermarket shopping and the choice of private label products. Thus, social construction (a qualitative observation research method) would be less helpful for discovering

general consumer trends for international private label strategies.

The expected research outcome focus on the facts of shopping behavior rather than the meaning of shopping and the hypotheses have been developed in order to test existing theories. Therefore, the current research is a process of theory testing rather than theory building.

Moreover, the choice of research paradigm to for theory testing has to be made between deductive and inductive. Collis and Hussey (2003, pp.346, 349) define deductive research as *'a study in which a conceptual and theoretical structure is developed which is then tested by empirical observation; thus particular instances are deducted from general influence.'* Inductive research is *'developed from the observation of empirical reality; thus general inferences are induced from particular instance, which is reverse of the deductive method since it involves moving from individual observation to statements of general patterns or laws.'*

This study adopts the deductive paradigmas Popper (1935) argues that theories should be tested deductively rather than inductively. Even if the theories fail during the testing, the outcome may still be an alternative theory which can be explained from a certain point.

5.1.3 The Emic/Etic Dilemma

In cross-cultural research, to the extent that each nation or cultural context may express their unique pattern of social values or behavioral phenomena in different ways (Lonner and Adamopoulos 1997), the issues of comparability need to be considered before selecting a specific research design. According to Pike (1966), cross-cultural research can be approached from two broad perspectives: emic or etic.

The etic approach is primarily concerned with universals; it aims at producing cross-cultural generalizations by identifying measurements of reliability and validation in one cultural context, and then translating and administering in another culture. In contrast, the emic approach studies behavior or attitude in a unique way in each culture. Even when concepts and constructs are identified, generalization is limited across cultures and contexts (Table 5.2).

Table 5.2 The Distinction Between Emics and Etics

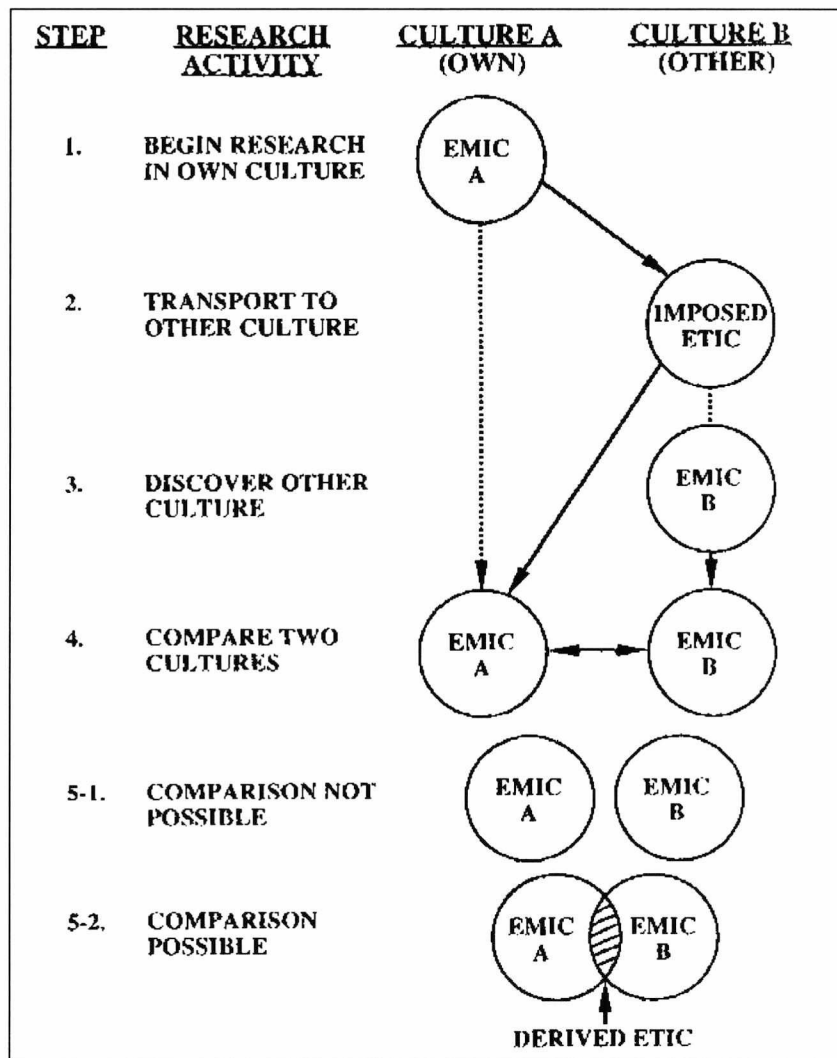
Etic Approach	Emic Approach
Studies behavior from a position outside the system.	Studies behavior from within the system.
Examines many cultures, comparing them.	Examines only one culture.
Structure created by the analyst.	Structure discovered by the analyst
Criteria are considered absolute universal.	Criteria are relative to internal characteristics.

Source: Berry (1969)

Generally speaking, the comparative studies in marketing research are primarily interested in finding similarities between cultures. Thus, an 'etic' philosophy is likely to be preferable. Therefore, the prime emphasis of this research is to identify and develop reliable and valid constructs and measurements that are comparable between two countries.

A schema which is proposed by Berry (1989) has been adopted in order to ensure comparability between the two cultural groups. This process starts in the UK (Step 1), moving to an attempt to use the same instrument to study the behavior in China (Step 2) and understand how the instrument works (Step 3), then to compare emic A and emic B (Step 4), finally reaching the conclusion that comparison between two culture is possible (Step 5-2).

Figure 5 2 Steps in Operationalizing Emics and Etics



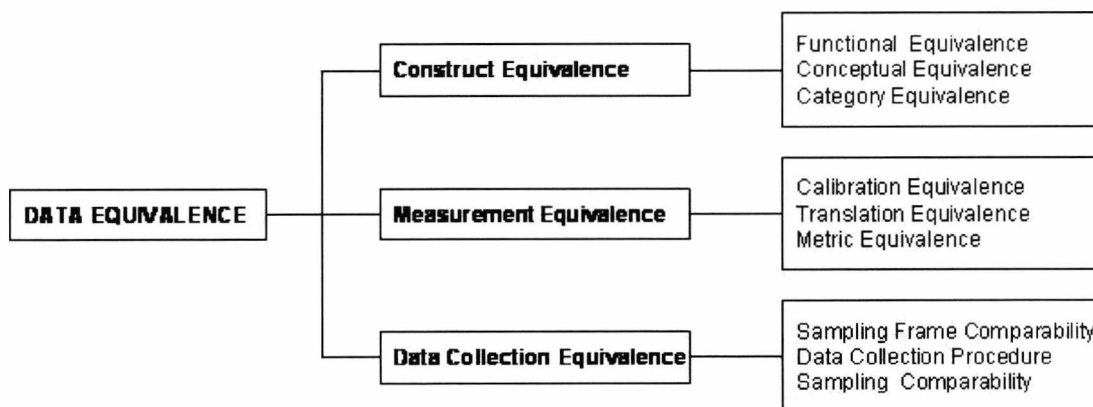
Source: Berry (1989)

5.2 Data Equivalence

'Data equivalence refers to the extent to which the elements of a research design have the same meaning, and can be applied in the same way, in different cultural contexts. Failure to establish data equivalence in cross-cultural studies may bias empirical results and theoretical inferences.' (Hult et al 2008, pp.1027)

It is strongly suggested that data equivalence needs to be carefully monitored through all stages of the research design while generating comparable data from one country to another. Therefore, before describing the research design, the categories of data equivalence will be discussed on the basis of extensive literature in this area (Broderick 1996; Craig and Douglas 2005; Erdem, Swait et al. 2006; Hult, Ketchen et al. 2008). Three main categories have been identified by previous research, namely construct equivalence, measurement equivalence and data collection equivalence. Each of these main categories has three sub categories (Figure 5.3). All the categories must be achieved in order to ensure comparability in cross-cultural consumer research.

Figure 5.3 Categories of Cross-Cultural Equivalence



5.2.1 Construct Equivalence

Construct equivalence is used to examine whether an object, concept, or behavior is the same in all contexts and cultures (Kumar 2000; Craig and Douglas 2005). In cross-cultural research, both etic and emic approach can be used to represent the theoretical domain of the construct fully and equally across cultures (Mintu, Campbell et al. 1995).

Construct equivalence entails examination of three distinct aspects – functional equivalence (i.e. the extent to which the object or behavior take the same role or function across cultures), conceptual equivalence (i.e. the extent to which the domains of the concept/behavior are the same across cultures) and category equivalence (i.e. the extent to which the same classification scheme can be used for the concepts and behavior across cultures) (Craig and Douglas 2005).

When evaluating **functional equivalence**, it does not matter if institutions are the same, what needs to be compared is the solution to these problems (Goldschmidt 1966). For this study research, retail formats and the availability of private labels may differ in UK and China but consumers universally perceive shopping as a utilitarian function.

Conceptual equivalence is concerned with the interpretation that individuals place on objects, stimuli or behavior, and whether these exist or are expressed in similar ways in different countries and cultures (Sears 1961). Conceptual equivalence is determined by testing construct reliability and validity in each culture in cross-cultural research. Chapter Six will detail the procedure of assessing the conceptual equivalence via unidimensionality, reliability and construct validity tests.

Category equivalence refers to the category in which objectives or other stimuli are placed. In terms of this study, the grocery product categories are defined differently in China and the UK. For example, in China, frozen food categories do not include frozen chips and vegetables; the ready meal category is replaced by 'hand-made' food or meals (food which is cooked at the scene); and the dairy product category has barely any cheese or butter products in most Chinese supermarkets. In contrast, these categories are the main components of supermarkets in the UK. Thus, the comparison of consumer behavior across identical product categories has not been pursued in this research.

Moreover, the availability of private labels differs from country to country. Private label ranges are well developed by all the main retailers in UK and across all the categories. However, it has only been launched by a few international retailers and major domestic retailing groups in China, and then only in a limited number of categories. Therefore, in this study, the same (international) retailer - Tesco has been chosen as the 'common' retailer in both countries and Tesco Value and Tesco Regular have been chosen as the categories to compare. The reasons for this are simple: (1) Tesco is a British company which also has stores in China; (2) Tesco Value and Tesco Regular are available in both countries; (3) the marketing strategy of Tesco Value and Tesco Regular are based on identical principles in both countries (see section 5.3).

Hult et al (2008) propose a number of measures to assess construct equivalence post-data collection – unidimensionality (Exploratory Factor Analysis and Confirmatory Factor Analysis), reliability (Cronbach's alpha) and construct validity (convergent and discriminant validity). The details of these measures are presented in Chapter Six.

5.2.2 Measurement Equivalence

Once construct equivalence has been achieved, the next step is to examine the measurement equivalence. Measurement equivalence addresses the comparability of the operationalization of the constructs such as the wording, scaling, and the scoring of the measures across different populations (Mullen 1995). Craig and Douglas (2005) identify three critical components of measurement equivalence: calibration, translation and metric equivalence.

Calibration equivalence ensures that the units of measure are converted correctly between cultures. It reflects equality between physical and perceptual measures (Hult et al, 2008). In this research, calibration equivalence relates to the comparability of product quality standards. In both the UK and China, the definitions of Tesco Value and Tesco Regular, in terms of product quality, are identical: Tesco Value is defined as 'quality guaranteed', and Tesco Regular is defined as 'leading brand quality at lower price'.

It is necessary to establish **translation equivalence** in cross-cultural research so that the instrument can be understood by respondents in different countries and has equivalent meaning in each research context. It is the stage in the research design at which the construct is defined in operational terms. The most widely used method of translation equivalence is back-translation, which controls for vocabulary equivalence, idiomatic equivalence, grammatical equivalence and syntactic equivalence (Campbell and Werner 1970). The back translation procedures provides researchers with a language check and more importantly, the compatibility of concepts between national cultures can be assessed during the translation process (Sekaran 1983). The survey instrument used in this research was developed in English in UK, then translated into Chinese, then back-translated by four separate bilingual speakers in China to ensure translation equivalence. During translation and back-translation, the researchers paid particular attention to the naturalness of the language, because

literal translation can sometimes become stilted.

The final concern of measurement equivalence is ***metric equivalence*** which has two important aspects: consistency of scoring and equality of response (Craig and Douglas 2005). Inconsistency of scoring may be caused by a lack of familiarity with scaling and scoring formats. In general, English speaking countries tend to use five to seven point Likert scales to measure perception, whereas in some other countries, ten or twenty point scales are more common (Douglas and LeMaire 1974; Kumar 2000). The survey instrument used for this research was initially developed in the UK, so a five point Likert scale was chosen, then piloted and finally adopted in China.

In addition, another aspect of metric equivalence concerns the response to a score obtained on a measure or scalar equivalence. It examines whether a score obtained in one research context has the same meaning in another context. A lack of scalar equivalence may cause response bias due to cultural factors and add systematic measurement error. For example, Latin Americans are prone to providing 'extreme' responses whereas Asian cultures tend to give more conservative responses (Steenkamp and Baumgartner 1998). Because metric equivalence can only be examined once the data have been collected, the scalar equivalence will be explained while testing for measurement error in Chapter Six.

5.2.3 Data Collection Equivalence

In addition to considering equivalence in terms of how the constructs are defined and how the measurements are designed in different cultures, it is also important to consider data collection equivalence. Data collection equivalence refers to whether the sources of data, the methods of eliciting data and the samples are comparable in different countries. Hult et al (2008) highlight three elements of data collection equivalence: sampling frame comparability, data collection procedure and sample comparability.

Sampling frame comparability refers to whether the samples drawn from different context are parallel with each other. The inconsistency of sampling frames may lead to unequal sampling errors across countries (Kumar 2000). In international marketing research, the sampling frame generally represents the geographical units such as countries and units within countries.

Data collection procedure equivalence refers to survey administration equivalence which includes the time between data collection in each country, method of interviews, and survey fieldwork details. The establishment of comparable data collection procedure minimizes threats to validity (Hult et al 2008).

Sampling equivalence covers the comparability of samples drawn from different countries. Sekaran (1983) emphasizes that selecting a representative sample is one of the most challenging steps in cross-cultural studies. Although, ideally, the characteristic of samples in different countries should match each other, in sampling households and organizations, the relevant respondent is not necessarily the same across countries (Craig and Douglas 2005).

Data collection equivalence is a pre-data collection procedure and will be discussed in sections 5.4 and 5.5.

5.3 Research Design

The research design details the necessary procedures for obtaining the information needed to structure and solve marketing research problems. The main purpose of a research design is to balance the perspectives of the researchers and target respondents (Malhotra and Birks 2005). Thus, research design involves developing an efficient research technique that elicits reliable and valid information from respondents.

5.3.1 Research Design from Different Perspectives

Firstly, the researchers have to make sure the research instrument is reliable or consistent, and the population chosen is valid within the context. Secondly, the data that the researchers collect has to be as up to date as possible, particularly when studying consumer behavior, due to the potential for changes in dynamic markets for fast moving consumer goods. Moreover, the data that the researchers plan to collect has to be available. In cross-cultural research, some data may be available in one country, but not in another. For example, in this research, when studying consumer behavior towards private labels, data for Tesco Finest is only available in UK because Tesco has not yet launched its Finest branding strategy in the Chinese market.

Another important consideration in the context of designing the survey instrument is to ensure that the questions are spontaneous, reasoned and conventional, so that respondents can answer quickly and express themselves clearly. Generally speaking, highly structured questionnaires are more appropriate for research that requires quick responses and factual answers while open questions are more suitable when the research is exploratory and thus requires less structured and more imaginative and intuitive answers (see Section 5.4).

5.3.2 Research Design Classification

The research design can be classified as exploratory or conclusive. According to Malhotra and Birks (2005), an exploratory research design is a flexible and evolving approach to understand marketing phenomena that are inherently difficult to measure. In contrast, a conclusive research design is used to measure a clearly defined marketing phenomena (Table 5.3).

Table 5.3 Difference Between Exploratory and Conclusive Research

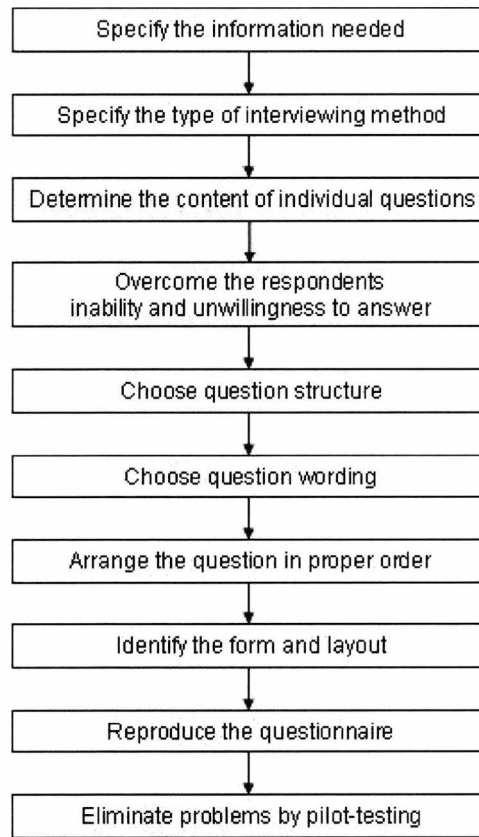
	Exploratory	Conclusive
Objectives	<ul style="list-style-type: none"> · To provide insights and understanding of the nature of marketing phenomena; · To understand 	<ul style="list-style-type: none"> · To test specific hypotheses and examine relationships; · To measure
Characteristics	<ul style="list-style-type: none"> · Information needed may be loosely defined; · Research process is flexible, unstructured and may evolve; · Samples are small · Data analysis can be qualitative or quantitative 	<ul style="list-style-type: none"> · Information need is clearly defined; · Research process is formal and structured; · Sample is large and aims to be representative; · Data analysis is quantitative
Findings/results	<ul style="list-style-type: none"> · Can be used in their own right; · May feed into conclusive research; · May illuminate specific conclusive findings 	<ul style="list-style-type: none"> · Can be used in their own right; · May feed into exploratory research; · May set a context to exploratory findings
Methods	<ul style="list-style-type: none"> · Expert surveys · Pilot surveys · Secondary data · Qualitative interviews · Unstructured observations · Quantitative exploratory multivariate methods 	<ul style="list-style-type: none"> · Surveys · Secondary Data · Database · Panels · Structured observations · Experiments

Source: Malhotra and Birks (2005)

The objective of this research is to test the hypotheses developed in Chapter Four, in order to measure the relationships between cultural values, perceived risks and the propensity to purchase private label products. Therefore, a conclusive research design has been adopted, using a highly structured survey instrument to collect primary data (see section 5.4 and 5.5).

5.4 Questionnaire Design

Once the method of research design has been decided, the next step is to design a reliable and valid survey instrument. The typical instrument in cross-cultural survey research is a questionnaire. Malhotra and Birks (2005) developed a questionnaire design process that was used as a guideline for the development of the survey instrument in this study (Figure 5.4).

Figure 5.4 Questionnaire Design Process (Malhotra and Birks 2005)

5.4.1 Specification of the Information Needed

According to Figure 5.4, the first step in the questionnaire design is to specify the categories of information needed. It can also be referred to as problem formulation in the first step of research design (Craig and Douglas 2005). The information that is required for questionnaire formulation is based on the literature review, the conceptual framework and the hypotheses to be tested, with consideration given to the the target respondents, as the background and demographic characteristics of potential respondents can have a direct influence on questionnaire design.

5.4.2 Specification of the Type of Interviewing Method

Having established that a conclusive research design with a highly structured survey is appropriate for this research (section 5.3). The next step is to decide which survey technique is the most appropriate for this quantitative study. The most common survey techniques are telephone interviews, personal face-to-face interviews and mail interviews. Although all the interview methods have their advantage and disadvantages, the priority when deciding which method to use in cross-cultural research is to maintain equivalence in the data collection procedure.

For telephone and mail interviews, regardless of whether they are administrated in the traditional way or computer-assisted, the availability of these survey techniques in China is distinctly limited. Moreover, neither telephone and mail surveys permit the identification of the respondent as a Tesco private label shopper. Thus, the personal face-to-face interview method was adopted for this research. The respondents were stopped before or after their supermarket shopping mission and asked to complete the questionnaire. This intercept method is generally associated with higher response rates but the cost of data collection is much higher than with telephone or mail surveys.

5.4.3 Determination of the Content of Individual Questions

After specifying the information needed and the type of interview method, the next step is to determine the content of individual questions. The measurement items used in this research are mostly adapted or modified from previous research. The process of item validation (deletion/retention) is discussed in Chapter 6.

5.4.4 Overcoming Respondents' Inability and/or Unwillingness to Answer Questions

However well designed a survey instrument might be researchers should not assume that respondents will provide accurate or consistent answers to all the questions. Especially in face-to-face interviews, respondents may well get annoyed if asked excessively sensitive or highly personal questions.

In order to overcome these difficulties, the most sensitive personal questions, such as those relating to income and education were placed at the end of the questionnaires and ranges were used rather than asking for specific figures. In addition, fieldworkers were encouraged to take extra care when explaining to respondents the purpose of the survey, the simplicity and non-confidential nature of the information sought and the short time required to complete it.

Also, for the Chinese respondents, a souvenir was given to every respondent, whilst in the UK respondents were informed that by completing the questionnaire respondents would be entered into a prize draw worth 50 pounds provided that they gave their personal details.

5.4.5 Choice of Question Structure

Structured questions (or closed questions) were used in the questionnaire. Apart from the four multiple choice questions that were used to define the respondents demographic groups, the rest of the questions use a Likert scale, such as:

I am well aware of the range of Tesco own label products available

strongly disagree disagree neither agree nor disagree agree strongly agree

The likert Scale is a widely used rating scale that requires the respondents to indicate a degree of agreement or disagreement with a series of statements about the object or construct of interest (Albaum 1997; Craig and Douglas 2005). This type of question is easy to construct and administer and the responses can be pre-coded and entered into a computer directly by the researchers for the purpose of data analysis.

5.4.6 Definition of the Wording of Items (Translation)

Question wording involves the translation of the desired question content and structure into words that respondents can clearly and easily understand. Researchers should use ordinary and unambiguous words and avoid leading and biasing questions, implicit assumptions and generalizations so that respondents will not be affected by any linguistic ideocyncracies while answering the questions (Craig and Douglas 2005). To minimize the likelihood of ambiguity or bias, the questionnaire was tested during the piloting study and some questions items were modified on the basis of respondents' feedback.

In cross-cultural research, once the instrument has been decided in one language; it has to be translated into another language. The back translation is the widely used translate method in psychological measurements. This approach can help with identifying translation errors and represents the competency of the translators (Brislin 1980; Hambleton 1993). It is also useful in establishing translation equivalence (Section 5.2).

5.4.7 Arranging the order of the Questions

The order of the questions is important as it can help the questionnaire flow quickly and enable researchers to establish logical connections between questions – as perceived by potential respondents. The questionnaire used for this research has three parts: Part A. Supermarket Shopping; Part B. You and

Your Values and Part C You and Your Household. The first part identifies the respondents' shopping behavior.. Thus, those respondents who claimed to have no experience of Tesco private label were eliminated first. In addition, personal questions relating to income and education were located at the end of the questionnaire to avoid deterring respondents from completing the questionnaire.

5.4.8 Identifying the Form and Layout of the Questionnaire

In self-administrated questionnaires, the form and layout of the questions can have a significant effect on the result, particularly while conducting the questionnaire face-to-face. The number of questions, estimated time of completion and the purpose of the survey were given at the start so that the respondents could decide whether or not to participate. In addition, because the concept of private label is relatively new to Chinese consumers, they may not have understood clearly what was meant by the words 'private label' even if they have had purchased them. Therefore, in the Chinese survey, some pictures of private label products were used to help the respondents understand what was meant by the term 'private label' (Figure 5.5), and ensure consistency in the interpretation of key constructs of the survey.

Figure 5.5 Tesco Logos and Products in China



5.4.9 Reproduce the Questionnaire

A well-printed questionnaire with a professional appearance may have a positive influence on the respondents. The questionnaires for this research were printed on A4 papers with the staples on the top of the papers. Each questionnaire contained eight pages. Both the UK and Chinese questionnaires had an identical format in order to establish data collection equivalence.

5.4.10 Elimination of Problems by Pilot-testing

Once the questionnaires are ready to be produced, a piloting-test should be conducted prior to the full data collection. Pilot-testing refers to testing the questionnaires on a small sample size to identify and eliminate potential problems. Even the best questionnaires can be improved by pilot-testing. Therefore, a questionnaire should not be used without piloting (Martin and Polivka 1995; Mohrle 1997). All the steps in questionnaire design process should be tested such as question content, wording, format and layout, question difficulty etc.

For this research, a pilot study was conducted in both countries. Although the

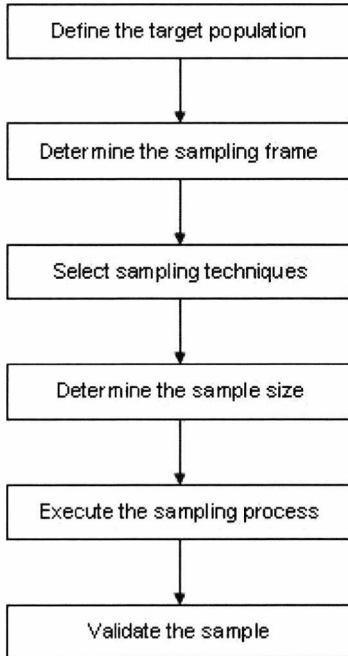
piloting study was based on a convenience sample (40 respondents in each country), the respondents were similar to those to be included in the actual survey – Tesco private label shoppers (see Section 5.5). Personal interviews were used for pilot study so that the researchers could gain feedback from the respondents during the interview. Two pilot studies were conducted in China, one after translating the English version into Chinese and one after addressing the problems of the translation.

The results of the pilot study were coded and analyzed for the purpose of scale development. More details of the pilot-testing and the data analysis of the pilot study will be discussed in Chapter 6.

5.5 Sampling and Data Collection

Once a research instrument has been designed for the collection of the required data, the next step is to develop a sampling and data collection procedure. In cross-cultural research, this procedure requires establishing data collection equivalence based on the targeted population, developing an equivalence sampling frame and selecting appropriate survey administration methods (Section 5.2). As with the questionnaire design procedure, this research followed the sampling design procedure proposed by Malhotra and Birks (2005) (Figure 5.6).

Figure 5.6 The Sampling Design Process



Source: Malhotra and Birks (2005)

5.5.1 Define the Target Population

The first step of sampling design is to specify the target population. In cross-cultural research, the target population has to be the group of respondents from different countries who have characteristics or background in common in relation to the research. For example, Hofstede's research towards cultural dimensions has chosen its target populations - IBM employees across different countries. These respondents are generally well-educated within a similar organization culture. In terms of the characteristics of current research, the respondents are shoppers in Tesco stores. Therefore, the target population of this research can be defined as Tesco shoppers in both UK and China.

5.5.2 Determine the Sample Frame

Once the target population has been identified, the next step is to select a

sampling frame which is used to determine which population group the sample can be drawn from. In international marketing research, sampling may take place in relation to different geographical units such as countries and units within countries (Craig and Douglas 2005). The levels of geographical units chosen for this research are shown in Table 5.4.

Table 5 4 Selected Sample Frame

Levels	Group 1	Group 2
1. Continent	Europe	Asia
2. Country	UK	China
3. Region	Kent	Liaoning
4. Cities	Maidstone, Ashford, Whitstable	Shenyang, Fushun, Dalian

Table 5 5 Geo-demographic Indicators of Selected Regions ²

	Kent	UK	Liaoning	China
Area	3,736km ² (1.5%)	243,610 km ²	145,900 km ² (1.5%)	6,640,821 km ²
Population	1,660,100 (2.7%)	62,041,708	43,060,000 (3.2)	1,338,612,968

The regions chosen within the two countries are near to the respective capital cities (Figure 5.7). The reasons for choosing these locations for the sample frame are as follows:

- both regions have relatively unitary populations – 96.5% of the Population in Kent are British white (92.1% overall in UK) and 93.94% population of Liaoning are Han – Chinese (92% overall in China)^{3,4}. Thus, the sampling frame is more homogenous than the major cities, in which there are large number of tourists, visitors and immigrants;

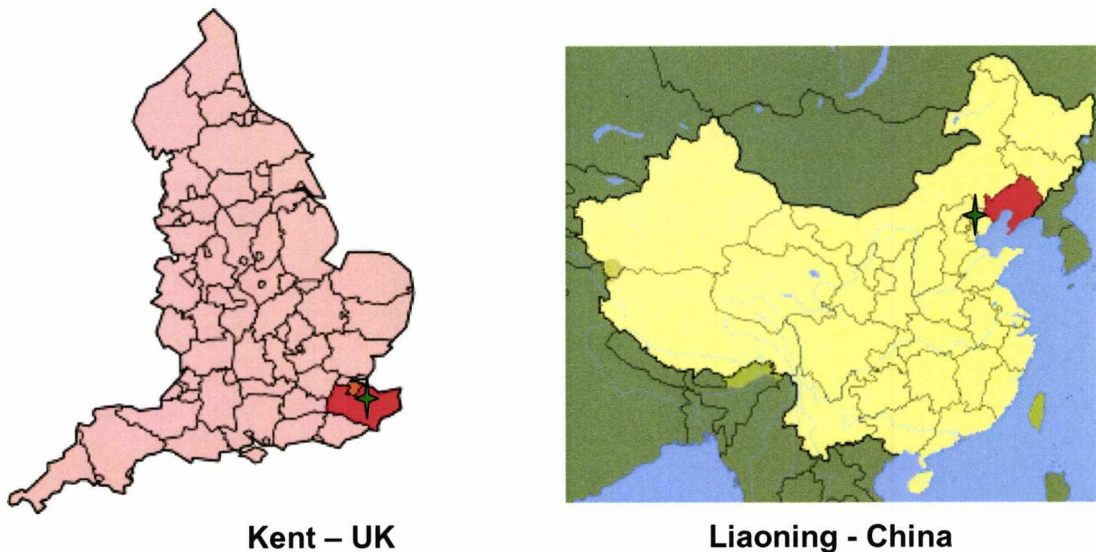
² UK source from Eurostat. Retrieved 09-02-2010; Population Estimates at www.statistics.gov.uk
China source from China Statistical Yearbook 2005 ISBN 7503747382

³ UK source from United Kingdom population by ethnic group. UK Census 2001. Office for National Statistics. 01-04-2004. Retrieved 15-04-2009

⁴ China source from department of population, social, science and technology statistics of national bureau of statistics of China and department of economic development of the state ethnic affairs commission of China, eds. Tabulation on Nationalities of 2000 population Census of China. 2 vols. Beijing: Nationalities Publishing House, 2003

- both regions are of a similar proportion of the country – they both account for 1.5% of the countries' total area and Kent has 2.7% of whole British population while Liaoning population accounts for 3.2% of China's whole population (Table 5.5). Moreover, both of Kent and Liaoning are coastal areas.
- The chosen towns/cities in each area include the administrative HQ – Maidstone in Kent, Shenyang in Liaoning; a coastal city – Whitstable in Kent, Dalian in Liaoning and an inland city – Ashford in Kent, Fushun in Liaoning. From the point of view of geographic coverage, the sample frame chosen for this research is therefore deemed comparable. Last but not the least, Tesco stores and Tesco private labels are available in all these cities.

Figure 5.7 Geographical Sample Frame



However, even if perceived more clearly by nationals than by foreigners, regional differences within countries are not very strong compared to international difference (Broderick 1996). Also, because this is self-funded research, it has been difficult to collect samples from a broader geographical perspective to make the samples more representative due to cost and time constraints. The purpose of choosing relatively comparable regions is to establish data collection equivalence.

5.5.3 Selecting Sampling Techniques

Once the sampling frame has given a direction for identifying the target population, an appropriate sampling technique needs to be decided in order to make sure the chosen elements are valid. This method applied in this study was a traditional sampling approach – sampling without replacement. Because the unit of analysis is the main supermarket shopper for an individual household only one person from the same household was permitted to complete the questionnaire.

A non-probability sampling is used to identify potential respondents. Specifically, two-stage restricted judgmental sampling (Malhotra and Birks 2005) method was used for this research. The first stage consisted of developing control quotas for specific population elements – in this case gender. Usually, the quotas are assigned according to the composition of each sample frame. In the UK, the gender proportion is male 50% - female 50%; in China, the proportion is male 51% - female 49%⁵.

According to Malhotra and Birks (2005), the only requirement in the second stage of quota sampling is that the respondents selected fit the control characteristics. In this study, the survey respondents were selected from every five female/male shoppers coming out of the stores and interviews were only conducted if the respondents had purchased private label products (Table 5.6).

⁵UK source from United Kingdom population. UK Census 2001. Office for National Statistics. 01-04-2004. Retrieved 15-04-2009

China source from department of population, social, science and technology statistics of national bureau of statistics of China and department of economic development of the state ethnic affairs commission of China, eds. Tabulation on Nationalities of 2000 population Census of China. 2 vols. Beijing: Nationalities Publishing House, 2003

Table 5 6 Frequency of Gender

	UK		China	
	<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent</i>
Male	228	42.1	227	43.7
Female	314	57.9	293	56.3
Total	542	100.0	520	100.0

Table 5.6 shows in both the UK and China, the proportion of male respondents is smaller than female respondents. In certain situations, it is desirable to either under- or over-sample elements with certain characteristics (Malhotra and Birks 2005), by considering the features of the research. In the context of this research females are more likely to undertake the food shopping on behalf of the households than males, so interviewers were permitted to interview more women than men and the sample is considered modestly represents gender demographic groups in each country.

5.5.4 Determination of the Sample Size

Determining the sample size is difficult when the precise size and nature of the population (Tesco shoppers who purchase own label products) is unknown. Thus, the sample size for this research was based primarily on criteria related to the proposed data analysis.

The current research is classified as conclusive quantitative research and the survey contains 45 questions relating to 13 variables. Thus relatively large samples are required in the two countries; In addition, Marketing research guidelines recommend that there are at least five to ten times as many respondents as there are variables (Hair, Anderson et al. 1998). This study has 13 variables. Therefore, a minimum sample size of 130 in each of the selected regions would be necessary. The final sample consisted of 1,062 respondents with over 500 respondents in each country and approximately 170 respondents in

each of the selected locations (Table 5.7).

Table 5.7 City Breakdown of Survey

UK			China		
<i>Cities</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Cities</i>	<i>Frequency</i>	<i>Percentage</i>
Ashford	182	91%	Fushun	170	80%
Whitstable	175	87.5%	Dalian	164	82%
Maidstone	185	92.5%	Shenyang	186	93%
UK Total	542	90.3%	CN Total	520	86.67%
No. of Usable Questionnaires				1,062	88.5%

5.5.5 Executing the Sampling Process

Having established the target population, sample frame, sample technique and sample size, the next step in the sampling process is implementation.

In each country, six survey fieldworkers were selected and trained to conduct the survey. One Tesco store was selected in each observed city. Two fieldworkers were located in each store, one in charge of conducting the survey during the day and another one in charge during the evening. All of them were postgraduate students from the local universities. The survey was administered over seven days – five week days and two days at the weekend. Each fieldworker was given one hundred questionnaires (1,200 in total).

The Tesco stores were chosen carefully, considering their size and location. The definition of supermarket differs across countries and the pattern of Tesco stores in UK and China is also different. In China, there are only two formats of Tesco' stores – hypermarket and Tesco Express. Tesco Express is newly introduced into China and is still in an experimental stage. The hypermarket, which contains a supermarket and a department store is still the main format of supermarkets in the main cities of China. In contrast, Tesco's UK stores are

divided into six formats – Tesco Extra, Tesco Superstores (Tesco), Tesco Metro, Tesco Express, One Stop and Tesco Homeplus. They are differentiated by size and the range of products sold in the store. In order to establish the conceptual and data collection equivalence, the formats of Tesco hypermarket in China and Tesco Extra in UK have been chosen for the research. They are both larger hypermarkets that stock nearly all of Tesco's product ranges (Table 5.8). The only difference is that Tesco hypermarkets in China are generally located in city centres whereas Tesco Extra stores in the UK are mainly located out-of-town.

Table 5 8 Store Location

UK		China	
<i>Cities</i>	<i>Stores</i>	<i>Cities</i>	<i>Stores</i>
Ashford	Ashford Park Farm	Dalian	Zhongshan Store
Maidstone	Maidstone Grove Green	Fushun	Wanghua Store
Whitstable	Whitstable Extra	Shenyang	Huanggu Store

The Chinese survey was implemented first in April 2009 and the UK survey was conducted two months later, both under the supervision of the main researcher. The MBA school of Dobei University of Finance and Economic (DUFE) has assisted the research work in China. The duties conducted by DUFE include back translating of both the pilot and final questionnaires, selecting target stores and providing fieldworkers for data collection.

5.5.6 Validate the Sample

At the end of the data collection process, both the survey fieldwork and the sample data collected need to be validated. Sometimes, survey fieldworkers may cheat by faking answers or falsifying data entry. Therefore, 10% of respondents who gave their contact details were contacted, by email or phone to enquire whether the fieldworkers actually conducted the interview. The results confirmed the authenticity of the data.

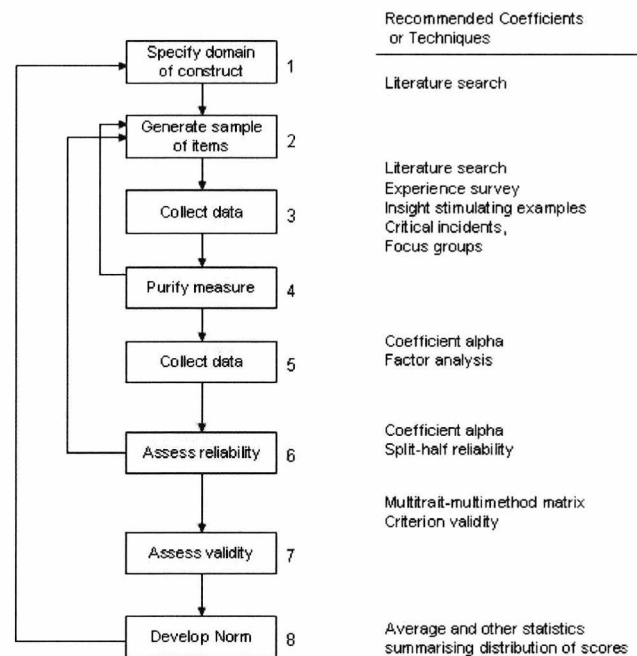
Sample validation aims to account for sampling frame error by screening the respondents in the data collection phase (Malhotra and Birks 2005). While screening the respondents, the inappropriate elements are eliminated. The details of this process as applied to this research will be discussed in Chapter Six.

5.6 The Progressive Structure of Data Analysis and Management

The results of the empirical research are presented in Chapters Six and Seven. The scale development and validation process (Chapter Six) followed the recommendations by Churchill's (1979) for developing and validating multi-item measurement scales and Hult's (2008) guidelines for establishing data equivalence.5.6.1 Churchill's (1979) Procedure for Scale Development and Validation

The procedure for developing and validating multi-item measurement scales is summarized in Figure 5.8.

Once the construct has been identified, an initial measurement scale is generated from the existing literature. A pilot study is then implemented in order to test the reliability of the construct measure in the specific research context. In order to achieve measurement equivalence, exploratory factor analysis is conducted once the full data is collected, as an aid to conceptualization (Gorsuch 1983). The researcher can then identify whether or not the dimensions of factors are similar and valid across cultures. Orthogonal rotation of the factor solution is commonly used which assumes that the factors are independent from each other (Craig and Douglas 2005).

Figure 5 8 Procedure for Developing and Validating Multi-item Measurement Scales

Source: Churchill (1979)

Once the reliability has been tested, the next step is to test the construct validity. This is established by determining the extent to which the measure correlates with other measurements designed to measure the same construct (convergent validity) and the extent to which the measure is distinct and is not simply a reflection of some other variables (discriminate validity) (Broderick 1996). These techniques have also been emphasized in the checklist for establishing data equivalence in cross-cultural studies by Hult et al (2008). While exploratory factor analysis provides a solution of the most meaningful factor structure, confirmatory factor analysis enables the researcher to specify competing factor-analytic models in order to test the hypotheses generated for theoretical framework. In cross-cultural research, confirmatory factor analysis is used to compare the equivalence of factor structures in different cultural contexts. The most widely used software package SPSS (version 16.0) and Lisrel (version 8.8) for exploratory factor analysis and confirmatory analysis were utilized for this research.

5.6.2 Statistical Analysis of the Full Survey

The analysis of the survey data is split into two sections. In the first section, a summary of descriptive statistics are used to identify cultural differences and consumer characteristics in UK and China. Structural equation modeling is then used to analyse the relationships between the variables of cultural value and perceived risk.

Structural equation modeling (SEM) is a very general, comprehensive and powerful multivariate statistical approach for testing hypotheses about relationships between observed and latent variables. The special cases of SEM include factor analysis (both exploratory and confirmatory), path analysis and regression. Broadly speaking, there are two components of SEM: the measurement model and the structural model. The measurement model shows the relationships between latent variables and their indicators. The structural model is that component of the general model that prescribes relationships between latent variables and observed variables that are not the indicators of latent variables. The detailed results of the SEM are presented and discussed in Chapter Seven.

5.7 Summary

This methodology chapter has described and given justification for the research methodology adopted for this study. A quantitative research method has been chosen for data collection and data analysis. The key hypotheses have been defined on the basis of the research literature and philosophical approach. Data equivalence has been ascertained for the purpose of cross-cultural research. The procedure of data equivalence evaluation followed Hult's et al (2008) theory which includes three steps – conceptual equivalence, measurement equivalence and data collection equivalence.

An overview of research design has been studied by looking at the objectives and characteristics of the research, followed by a specific questionnaire design and sampling technique. The sample chosen were aimed at representing Tesco shoppers rather than the country.

In addition, the statistical analysis techniques have been summarized and presented. The following two chapters will present the detailed results of the statistical analysis of the survey results.

CHAPTER SIX

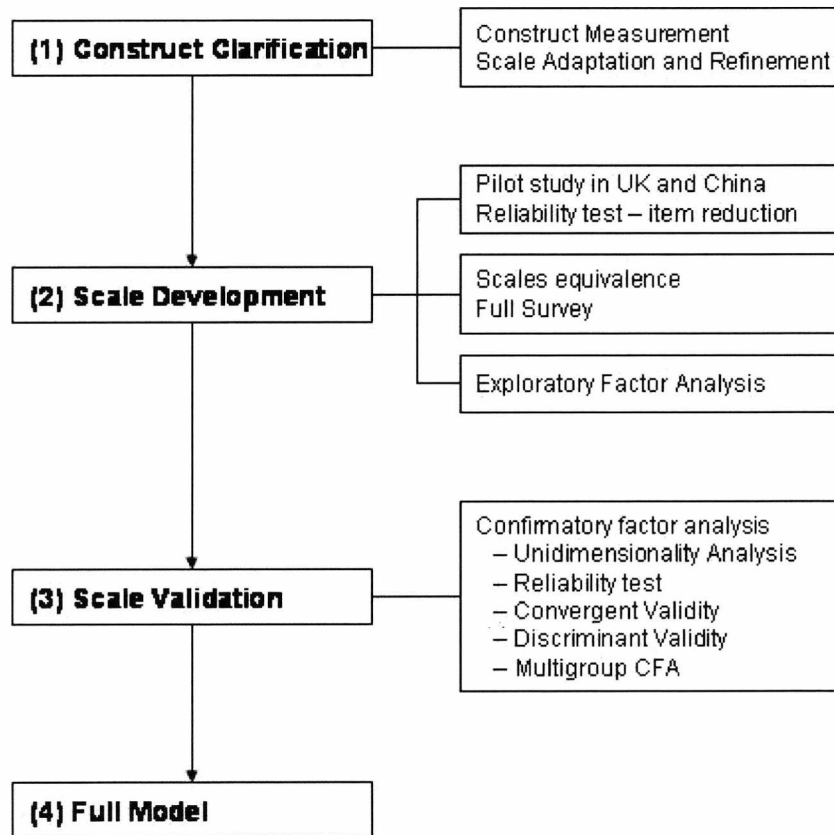
SCALE DEVELOPMENT AND VALIDATION

6.0 Introduction

In order to test the theoretical model and hypotheses developed in Chapter Five, a measurement instrument for private label consumer behavior will be identified in this chapter. Although, there is no literature to date that has developed a specific instrument to measure the relationships of cultural values, perceived risks and private label behavior; there appears a few studies that involve the relationship between culture and consumer behavior; perceived risks and private label consumer behavior; culture and perceived risk in general. Therefore, the aim of this measurement instrument will also help to build a model of private label consumer behavior which involves cultural value, perceived risks and some other factors.

The procedure to development and validate a measure instrument has been established by the scholars (Churchill 1979). This chapter will divide the procedure into three key stages (Figure 6.1): (1) construct clarification – deciding measurement items on the basis of theoretical model; measurement scales will be adapted from previous research and refined by pre-piloting study; (2) Scale development – identifying a model structure; a piloting study with smaller sample size will be conducted in order to test the reliability of the constructs; exploratory factor analysis will be used to demonstrate scale equivalence in cross-cultural research; (3) Scale Validation – testing the applicability of the developed model. A multiple group confirmatory factor analysis (CFA) will be carried out using structural equations modeling to verify the reliability and validity of the scales cross groups. At the end of the chapter, a full cross – cultural equivalent model will be confirmed.

Figure 6.1 A Framework to Develop and Validate a Cross-cultural Measurement Instrument of Private Label Consumer Behavior



6.1 Construct Clarification

Churchill (1979) suggests that the first step in the procedure for developing better measures involves specifying the domain of the construct. Therefore, several different measurement scales from previous literatures will now be discussed in order to select the best scale to adopt in the research. The chosen scales will also be justified for the purpose of cross-cultural marketing research of consumer behavior towards private labels.

6.1.1 Construct Measurement

In Chapter Four, five cultural dimensions together with familiarity have been defined as the moderators of private label propensity. Five types of perceived risks together with perceived quality difference are viewed as mediators to explain the relationship between cultural values and consumer behavior. Therefore, twelve independent variables have been considered as the factors which could impact on private label propensity – the dependent variable. Because this is a relatively complex model for consumer behavior testing which contains thirteen variables in total, in order to retain the reliability of the scales, most of the measurement scales have been developed in the previous literature. The world-wide marketing research company - ACNielsen (2005a) has also developed some scales (familiarity, perceived social risk and perceived psychological risk) which are used to measure the consumer attitude towards private label brands in 38 countries (Appendix A).

Familiarity

According to the literature, familiarity serves to increase consumers' willingness to buy private labels by decreasing the perceived risk and quality differences (Bettman 1974). The most recent measurement scale of familiarity towards perceived risks and private label propensity is from Mieres et al (2005). Four items have been pooled and modified from earlier research (Dick, Jain et al. 1995; Sethuraman and Cole 1997; Bailey 1999). Also in 2005, ACNielsen has produced a report of consumer attitude towards private label in thirty-eight countries. One item has been used to measure consumer's familiarity towards

private labels.

Cultural Values

Yoo and Donthu (2002) develop a scale to measure cultural values at the individual level on the basis of Hofstede's (1983, 2001a) five cultural dimensions resulting in 26 items. Their research confirms Hofstede's cultural dimensions with adequate psychometric properties in reliability and validity (Yoo and Donthu 2005). It has also been adopted by other scholars while studying individual's cultural values in marketing research (Prasongsukarn 2005; Patterson, Cowley et al. 2006; Paul, Roy et al. 2006; Lam 2007; Tsoukatos and Rand 2007).

Perceived Quality Difference

Although both the Private Label Manufacturers Association and the international retailers assert that private labels offer the same quality as the other major brands, there are still many scholars who believe the differentiation of perceived quality exhibits itself through the perception that private labels are of lower quality than the other major brands (Bellizzi, Kruckeberg et al. 1981; Choi and Coughlan 2006). Dick and Jain et al (1995) developed a measurement scale of private labels proneness which includes four items in the construct of perceived quality difference. This construct has been adopted and justified by Mieres et al (2005), Batra and Sinha (2000) and AC Nielsen (2005).

The scale can be used to test both perceived quality difference of food and non-food product as it contains items which are related to both nutrition (food) and safety (non-food).

Perceived Risks

The most well-know components of perceived risks are developed by Jacoby and Kaplan (1972). Five types of perceived risks have been identified in consumer research. Stone and Gronhag (1993) and Dholakia (1997) adopt Jacoby and Kaplan's components and modify it by adding time risk as the sixth perceived risk. Mieres et al (2005) derive the measurement instrument from the

previous research, but justify performance risk as functional risk (Mieres, Martin et al. 2005).

Private Label Propensity

Private label propensity is generally evaluated by the frequency of purchasing private within certain period such as 'how often do you purchase private label – never, sometime, always' (Dick, Jain et al. 1995; Richardson, Jain et al. 1996; Batra and Sinha 2000).

6.1.2 Scale Adaptation and Refinement

The most widely used research scale – Likert scale has been used in current research so that the respondents are able to specify their level of agreement to the statement. A recent study found that a five or seven point Likert Scale may produce slightly higher mean scores relative to the highest possible attainable score, compare to those produced from an eight or ten point scale (Dawes 2008). The format of the typical five-level Likert item that is adopted in this research is:

1. Strong Disagree
2. Disagree
3. Neither Agree or Disagree
4. Agree
5. Strongly Agree

Important marketing scales are often justified for particular applications by changing the wording of items, adding items, or eliminating items from the original scale in order to suit the specific context of scale usage (Finn and Kayande 2004).

In this research, a pre-piloting study was undertaken in order to decide which items should be dropped or refined. A draft questionnaire was conducted in order to identify which item might cause misunderstanding or contain double-information. The duplicate questions were deleted and a few items were

dropped and refined, for the following reasons (original measurement is detailed in Appendix A):

Familiarity

Item 3 (I am quite familiar with private label brands) is considered too straightforward and item 4 (I have often bought private brands) is concerned as a repeat of the private label propensity measurement scale (How often do you purchase private label brands). Therefore, these two items have been deleted and replaced by the one item (Tesco own label products are nothing new to me) from ACNielsen (2005a).

Cultural Values

Item LT2 (Going on resolutely in spite of opposition (persistence)) from long/short-term orientation measurement is difficult to understand according to the feedbacks from the interviewers. Because the question is confusing, this item has been deleted.

Perceived Risks

There are a few items that have been dropped, justifying Mieres' et al (2005) perceived risk measurement construct. First of all, items 2 and 3 of perceived functional risk are merged as one item. Secondly, items 1 and 3 of perceived social risk are dropped and replaced by one single item from ACNielsen (2005a). Thirdly, most of the interviewers think item 1 and 2 of perceived psychological risks are absurd and ridiculous. Therefore, they are eliminated and replaced by one single item from ACNielsen (2005a). Finally, in perceived risk construct, item 1 is deleted due to the 'bad result' in the question is viewed too general by the interviewers.

Perceived Quality Difference

This independent variable is aimed to compare the perceived quality difference between private labels and national brands, but it is not reflected in

item 1. Therefore, item 1 is removed from the construct. Also, in order to make sure the construct demonstrates the 'quality' of both food and non-food product, 'nutrition' (food) and 'safety' (non-food) were emphasized separately in item 2 and item 3.

As Chapter 5 clarified, the sample of research is mainly Tesco shoppers. Therefore, the measurement scale has been refined in order to suit for this particular research. Some wording modifications have also been made during the refinement. The reasons of refining the scale are to establish a better internal consistency, determinate a content homogeneity of unidimensional facets and include the items that discriminate at the desired level of attribute intensity (Smith and McCarthy 1995). The refined measure scale for survey piloting is shown in Table 6.1.

Table 6.1 Refined Measurement Scale of Piloting Questionnaire

Familiarity	F1	I am well aware of the range of Tesco own label products available.	1
	F2	I have plenty experience in using Tesco own label products.	2
	F3	Tesco own label products are nothing new to me.	3
Collectivism	CO1	Individuals should sacrifice self-interest for the benefit of society as a whole.	4
	CO2	Individuals should support social causes even when it is difficult.	5
	CO3	Individual success is more rewarding than being part of a winning team. (-)	6
	CO4	Welfare of the society is more important than individual rewards.	7
	CO5	Individuals should pursue their goals only after considering the welfare of the society as a whole.	8
	CO6	Group loyalty should be encouraged even if individual goals suffer.	9
Masculinity	MA1	It is more important for men to have a professional career than it is for women.	10
	MA2	Men usually solve problems with logical analysis; women usually solve problems with intuition.	11
	MA3	Solving difficult problems usually requires an active, forcible approach, which is typical of men.	12
	MA4	There are some jobs a man can always do better than a woman.	13
Uncertainty Avoidance	UN1	It is important to have instructions spelled out in detail so that I know what I'm expected to do.	14
	UN2	It is important to closely follow instructions and procedures.	15
	UN3	Rules/regulations are important because they inform me of what is expected of me.	16
	UN4	Standardized work procedures are helpful.	17
	UN5	Instructions for operations are important.	18
Power Distance	PO1	People in higher positions should make most decisions without consulting people in lower positions.	19
	PO2	People in higher positions should not ask the opinions of people in lower positions too frequently.	20
	PO3	People in higher positions should avoid social interaction with people in lower positions.	21
	PO4	People in higher positions should not delegate important tasks to people in lower positions.	22
	PO5	People in lower positions should not disagree with decisions made by people in higher positions	23
Long-term Orientation	LT1	No one can predict future, there is no sense in saving too much.(-)	24
	LT2	People like me would prefer more variety than more stability in their lives. (-)	25

	LT3	People need to make provisions for the future.	26
	LT4	Life is for living today not worrying too much about the future. (-)	27
	LT5	People need to work hard today in order to be successful in the future.	28
Perceived Quality Difference	PQD1	The overall quality of Tesco own label products is usually as good as the branded alternative.	29
	PQD2	The nutritional quality of some Tesco own label products is inferior to that of the branded alternatives. (-)	30
	PQD3	Some Tesco own label products are not as safe as the branded alternatives.(-)	31
Perceived Functional Risk	PFUR1	Sometime I am suspicious about the quality of Tesco own label products.	32
	PFUR2	I am often disappointed with the quality of Tesco own label products	33
	PFUR3	Buying Tesco own label products is risky because the quality is inconsistent.	34
Perceived Financial Risk	PFIR1	I sometimes feel that buying Tesco own label products is a waste of money.	35
	PRIR2	I sometimes feel that Tesco own label products are not worth the money I spend on them.	36
	PFIR3	Buying Tesco own label products is not always a good way to spend my money.	37
Perceived Social Risk	PSR1	Tesco own label products are designed for people who are on tight budgets and cannot afford the best	38
	PSR2	I am sometimes worried that if I buy Tesco own label products other people may look down on me.	39
	PSR3	I am sometimes worried that if others know that I buy Tesco own label products brands it may negatively affect what they think of me.	40
Perceived Psychologic al Risk	PPR1	Most Tesco own products have very cheap looking packaging, which puts me off buying them.	41
	PPR2	Tesco own label products do not fit very well with the image I have of myself.	42
	PPR3	I sometimes question whether buying Tesco own label products is the right thing to do.	43
Perceived Time Risk	PTR1	I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up disappointed and have to look for a replacement.	44
	PTR2	I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up complaining and seeking a refund.	45
	PTR3	I am worried that buying supermarket brands may be a waste of time because the product is worthless.	46
Private Label Propensity	PBP	Whether they regularly bought each product, and if so the frequency with which the product was a store brand; never (" 1"), rarely ("2"), sometimes ("3"), often ("4"), or always ("5")	0

6.2 Piloting Study

The procedures for developing a scale to measure an underlying marketing construct in a single country are relatively straightforward and well understood (Churchill 1979). However, developing a scale in a cross-national environment is considerably more complex and challenging. Craig and Douglas (2005) propose that the first and most fundamental question of cross-national scale development is whether the same construct exists in different countries. Therefore, a piloting study will be used for the purpose of scale development to discover a valid scale of private label consumer behavior which is suitable for the study in both UK and China.

6.2.1 Piloting Study in UK and China

Pilot-testing refers to testing the questionnaire on a small sample of respondents to identify and eliminate potential problems (Martin and Polivka 1995). Earlier in the chapter, pre pilot study resulted in a few suggestions from the key members of the research have been adopted to modify some of the questions. The rest of the piloting-test is conducted by interviewing supermarket shoppers (Details in Chapter 5).

In the piloting study, forty-seven items (Table 6.1) have been adopted and modified from the previous research. Four demographic items (age, income, life-stage and education) have also been included at the end of the questionnaires. The items used in both countries are identical. Due to the limited knowledge towards private labels, a couple of pictures have been used in the Chinese questionnaires to help identifying the particular brands. Forty interviews of supermarket shoppers have been completed in each country. The data obtained is used for item reduction and modification.

6.2.2 Reliability Test – Generalizability Theory

In marketing study, only the scale that consists exclusively of etic items can be generalized across countries, while a scale that consists of emic items cannot. Two different approaches which are recommended to be used to assess the generalizability of the entire scale cross countries are confirmatory factor analysis (CFA) and generalizability theory (G theory) (Craig and Douglas 2005). In this section, G theory will be applied in piloting study first and confirmatory factor analysis will be used in later analysis.

Generalizability theory is a statistical framework for conceptualizing, investigating, and designing reliable observations. It is used to determine the reliability of measurements under specific conditions (Cronbach, Nageswari et al. 1963). Reliability is defined as: 'the degree to which measures are free from error and therefore yield consistent results' (Peter 1979). By far the most commonly used reliability coefficient is coefficient alpha, an estimator of internal consistency (Peterson 1994).

Coefficient alpha was developed by Cronbach (1951) as a generalized measure of the internal consistency of a multi-item scale. It is formulated as:

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

where N is the number of components (items or testlets), σ_X^2 is the variance of the observed total test scores for the current sample of persons, and $\sigma_{Y_i}^2$ is the variance of component i for the current sample of persons.

Or

$$\alpha = \frac{N \cdot \bar{c}}{(\bar{v} + (N - 1) \cdot \bar{c})}$$

where N is the number of components (items or testlets), \bar{v} equals the average variance for the current sample of persons and \bar{c} is the average of all covariances between the components across the current sample of persons (Cronbach 1951). The coefficient alpha of the scales piloting in two countries are shown in Table 6.2

Table 6.2 Cronbach's alpha in Piloting Study

	UK	CN
Familiarity	0.671	0.504
Collectivism	0.879	0.755
Masculinity	0.748	0.665
Uncertainty Avoidance	0.485	0.639
Power Distance	0.885	0.643
Long-term Orientation	0.919	0.755
Perceived Quality Difference	0.624	0.687
Perceived Functional Risk	0.491	0.592
Perceived Financial Risk	0.747	0.722
Perceived Social Risks	0.634	0.540
Perceived Psychological Risk	0.603	0.627
Perceived Time Risk	0.767	0.439

Murphy and Davidshofer (1988) recommend Cronbach's alpha below 0.6 is an unacceptable level. Table 6.2 indicates a few constructs in the scale are below 0.6 in one or both of the countries. Koppalle and Lehmann (1997) show that

eliminating poor items can have a sizable positive impact on reported alpha. Therefore, according to suggestion given by SPSS reliability test, items that do not contribute to improve levels of reliability based on Cronbach's alpha should be eliminated (Table 6.3).

Table 6.3 Cronbach's alpha in Piloting Study after Deleting Suggested Items

	UK	CN
Familiarity	0.671	0.504
(if delete F3)	(0.624)	(0.782)
Uncertainty Avoidance	0.485	0.639
(if delete U1)	(0.622)	(0.665)
Perceived Functional Risk	0.491	0.592
(if delete PFUR3)	(0.646)	(0.616)
Perceived Social Risk	0.634	0.540
(if delete PSR1)	(0.917)	(0.790)
Perceived Psychological Risk	0.603	0.627
(if delete PPR1)	(0.691)	(0.648)
Perceived Time Risk	0.767	0.439
(if delete PTR3)	(0.716)	(0.710)

Therefore, in the finalized questionnaire, there are 40 items remain to measure 12 independent variable, 2 items to evaluate the dependent variable plus 2 demographic questions to identify different shoppers (Table 6.4).

Table 6.4 Measurement Scale of Finalized Questionnaire

Familiarity	F1	I am well aware of the range of Tesco own label products available.	1
	F2	I have plenty experience in using Tesco own label products.	2
Collectivism	CO1	Individuals should sacrifice self-interest for the benefit of society as a whole.	3
	CO2	Individuals should support social causes even when it is difficult.	4
	CO3	Individual success is more rewarding than being part of a winning team. (-)	5
	CO4	Welfare of the society is more important than individual rewards.	6
	CO5	Individuals should pursue their goals only after considering the welfare of the society as a whole.	7
	CO6	Group loyalty should be encouraged even if individual goals suffer.	8
Masculinity	MA1	It is more important for men to have a professional career than it is for women.	9
	MA2	Men usually solve problems with logical analysis; women usually solve problems with intuition.	10
	MA3	Solving difficult problems usually requires an active, forcible approach, which is typical of men.	11
	MA4	There are some jobs a man can always do better than a woman.	12
	UN1	It is important to closely follow instructions and procedures.	13
	UN2	Rules/regulations are important because they inform me of what is expected of me.	14
	UN3	Standardized work procedures are helpful.	15
	UN4	Instructions for operations are important.	16
Power Distance	PO1	People in higher positions should make most decisions without consulting people in lower positions.	17
	PO2	People in higher positions should not ask the opinions of people in lower positions too frequently.	18
	PO3	People in higher positions should avoid social interaction with people	19

		in lower positions.	
	PO4	People in higher positions should not delegate important tasks to people in lower positions.	20
	PO5	People in lower positions should not disagree with decisions made by people in higher positions	21
Long-term Orientation	LT1	No one can predict future, there is no sense in saving too much.(-)	22
	LT2	People like me would prefer more variety than more stability in their lives. (-)	23
	LT3	People need to make provisions for the future.	24
	LT4	Life is for living today not worrying too much about the future. (-)	25
	LT5	People need to work hard today in order to be successful in the future.	26
Perceived Quality Difference	PQD1	The overall quality of Tesco own label products is usually as good as the branded alternative.	27
	PQD2	The nutritional quality of some Tesco own label products is inferior to that of the branded alternatives. (-)	28
	PQD3	Some Tesco own label products are not as safe as the branded alternatives.(-)	29
Perceived Functional Risk	PFUR1	Sometime I am suspicious about the quality of Tesco own label products.	30
	PFUR2	I am often disappointed with the quality of Tesco own label products	31
Perceived Financial Risk	PFIR1	I sometimes feel that buying Tesco own label products is a waste of money.	32
	PRIR2	I sometimes feel that Tesco own label products are not worth the money I spend on them.	33
	PFIR3	Buying Tesco own label products is not always a good way to spend my money.	34
	PSR1	I am sometimes worried that if I buy Tesco own label products other people may look down on me.	35
	PSR2	I am sometimes worried that if others know that I buy Tesco own label products brands it may negatively affect what they think of me.	36
	PPR1	Tesco own label products do not fit very well with the image I have of myself.	37
	PPR2	I sometimes question whether buying Tesco own label products is the right thing to do.	38
Perceived Time Risk	PTR1	I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up disappointed and have to look for a replacement.	39
	PTR2	I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up complaining and seeking a refund.	40
Private Label Propensity	PBP	Whether they regularly bought each product, and if so the frequency with which the product was a store brand; never ("1"), rarely ("2"), sometimes ("3"), often ("4"), or always ("5")	0

6.2.3 Scale Equivalence

In international marketing research, one of the critical issues is whether the individual items function in the same way from one country to another. A common procedure is to develop a scale in one country and administrate it in the other countries, with limited consideration of its validity in different contexts. This approach assumes that the underlying construct is relevant and presentable across countries (Craig and Douglas 2005).

In order to overcome the limitation of the approach above, an identical scale has been tested in both UK and China. Table 6.3 summarizes the constructs with unacceptable level of reliability and the Cronbach's alpha after deleting

suggested items in both countries. It shows that some of the items function in one country but not in the other. Although eliminating items that function differently between two countries does not necessarily lead to elimination of differences in the average scores between groups (Poortinga and Flier 1988), taking out biased items does ensure that the score differences between two countries are free from item bias.

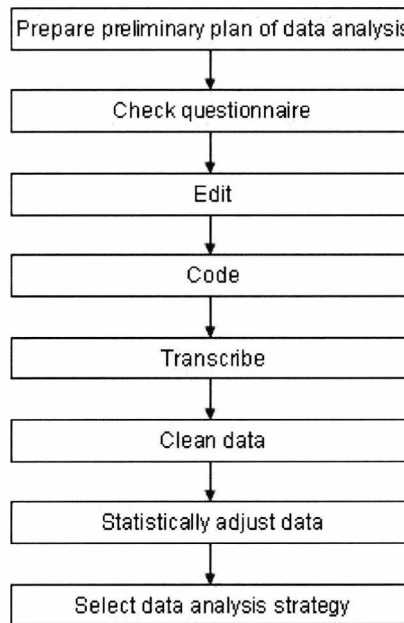
Therefore, in this research, the items that function in one country but not in another have been deleted from both countries after piloting study. Table 6.3 shows after deleting those biased item in both countries, all the Cronbach's alphas still remain at an acceptable level (>0.6).

During the piloting, first demographic question which is used to define life-stages has been modified in China's survey. One item has been added to identify a special type of household – Other family combination includes three generations living together, grandparents and grandchildren living together, etc. These types of household do not seem common in the UK, but can represent many families in modern China. (Appendix B and Appendix C).

6.2.4 Data Collection

Malhotra and Birks (2005) propose a data preparation process for marketing research which is shown in Figure 6.2.

Figure 6.2 Data Preparation Process (Malhotra and Birks 2005)



Guided by the first step Prepare Preliminary Plan of Data Analysis which is formulated in the methodology chapter, data preparation started as soon as the first batch of questionnaires was received in April 2009 in China, and continued until the last batch of questionnaire was received in August 2009 in UK. Quota was defined by gender and life-stage group. Six hundred questionnaires have been administrated by four survey fieldworkers (research students) in each country, 567 questionnaires have been returned in China while 575 questionnaires have been returned in UK.

While checking the questionnaires, each questionnaire has been numbered so that the original data will be easy to track down if needed. Questionnaires with significant missing data were eliminated from the analysis. Because the sample size is relatively large and the proportion of unsatisfactory respondents is small (less than 5%), it conforms to Malhotra and Birks' (2005) suggestion – discarding unsatisfactory respondents. Therefore, there are usable 539 questionnaires in China and 554 questionnaires in UK.

The questions were measured on five-point scales. The demographic questions with different number of answers are coded depending on how many

possible answers they have. It is worth noting that there four questions which are reverse questions (Question 6, 24 25 and 27, see Table 6.1). Therefore, the answers to these questions were coded reversely (e.g. 5 to 1). While coding data, the data from UK and China have been transcribed into two separated SPSS databases. The order of the questions has been re-arranged for the purpose of data analysis in the future.

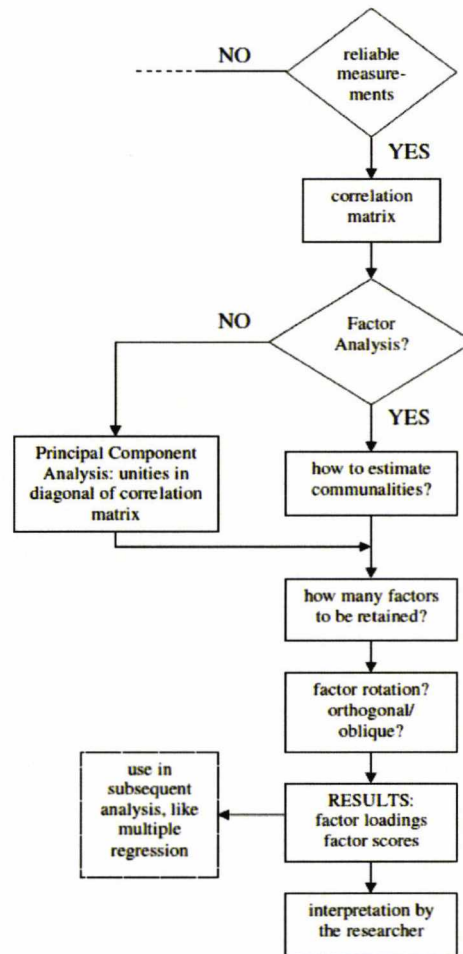
Before starting to adjust the data in the statistical way, consistency checks and treatment of missing responses are required by cleaning the data the last time. Although no invalid data value has been found, there are a few missing responses in both countries' database. These unknown values of certain variables may be caused by ambiguous answers to the questions or just simply missing out the questions. Because the proportion of missing responses is small compared with the large sample size, casewise deletion method was adopted. Cases with any missing responses are discarded from the analysis which left 520 cases in Chinese sample and 542 in the sample of UK.

Before analyzing the data in order to test the research hypotheses, exploratory factor analysis (EFA) will be used for data reduction and summarization.

6.3 Factor Analysis

Factor analysis is a class of procedures primarily used for reducing the number of variables to be analyzed and to ensure that there is no multicollinearity between variables. It can also be used to identify underlying relationships or structures within data (Huarman 1976). Rietveld & Van Hout (1993) offers an overview of the steps in factor analysis (Figure 6.3)

Figure 6.3 Over View of the Steps in a Factor Analysis



(Rietveld and Van Hout 1993)

6.3.1 Reliability Test

Following Rietveld and Van Hout's (1993) procedure, before conducting a factor analysis, a reliability test of Cronbach's alpha has been produced first (Table 6.5). The theoretical evidence of reliability test has been discussed in the piloting section earlier in the chapter.

Table 6.5 Cronbach's Alpha of the Construct of the Study

	UK	CN
Familiarity	0.903	0.798
Collectivism	0.860	0.856
Masculinity	0.765	0.787
Uncertainty Avoidance	0.818	0.752
Power Distance	0.894	0.803
Long-term Orientation	0.589	0.819
Perceived Quality Difference	0.663	0.563
Perceived Functional Risk	0.764	0.760
Perceived Financial Risk	0.885	0.841
Perceived Social Risk	0.817	0.784
Perceived Psychological Risk	0.758	0.581
Perceived Time Risk	0.798	0.806
Propensity of Private Label Product	0.610	0.748

Table 6.5 indicates that three Cronbach's coefficient alphas are under the minimized recommend reliability level (<0.6) – Long-term Orientation (UK), Perceived Quality Difference (CN) and Perceived Psychological Risk (CN). SPSS suggests remove LT2 from UK construct and PQD1 from China construct which could bring Cronbach's alphas up to 0.605 and 0.656 (Table 6.6 and Table 6.7).

Table 6.6 Reliability Test of Long-term Orientation (UK)

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Long-Term Orientation 1	10.17	5.233	.519	.434
Long-Term Orientation 2	9.39	6.030	.226	.605
Long-Term Orientation 3	10.15	6.411	.341	.540
Long-Term Orientation 4	9.41	5.281	.337	.545
Long-Term Orientation 5	10.42	6.284	.359	.531

Table 6.7 Reliability Test of Perceived Quality Difference (China)

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Perceived Quality Difference 1	6.33	1.575	.238	.656
Perceived Quality Difference 2	6.59	1.295	.430	.369
Perceived Quality Difference 3	6.49	1.233	.464	.311

The ultimate goal of this research is to compare results across different cultural populations so that the underlying constructs being measured should be the same for different groups. Therefore, at this stage, the reliability test will only be viewed as a reference for future analysis.

6.3.2 Correlation Analysis

The second step which determines whether factor analysis is suitable for a set of data is the correlation analysis. Craig and Douglas (2005) advise the first step in multicountry research is to calculate an intracountry correlation matrix of all variables to get some idea of the strength of association within each country.

So far, the correlation coefficient in both data sets demonstrates that the variables vary from each other. It provides some idea of bivariate relationships. The correlations are significantly lower than 1.00 between each cultural dimension variable which proves that the cultural dimension are independent to each other. The correlations between cultural dimensions and risks are relatively higher, therefore, the relationships between risks and certain cultural dimensions could be established during factor analysis, and can be compared across countries.

6.3.3 Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy

After conducting the reliability test, the next step is to find out whether the data is appropriate for factor analysis. The Kaiser-Meyer-Olin (KMO) measure can be used to examine the homogeneity of the variables to be factor analyzed. Kaiser and Rice (1974) suggest that the overall KMO should exceed 0.80, with a value of 0.60 being acceptable. In this research, the KMO of both countries' data are over 0.80 – UK, 0.861; China, 0.822, which indicate that the data are suitable for factor analysis.

In this research, exploratory factor analysis will be utilized first for the purpose of data reduction and scale modification. It will be followed by the confirmatory factor analysis to test construct validity.

6.3.4 Exploratory Factor Analysis

As the foundation of factor analysis, exploratory factor analysis is the most widely used statistical technique to demonstrate structural equivalence in cross-cultural research (Watkins 1989). It summarizes the interrelationships amongst the variables as an aid to conceptualization and examines its internal reliability (Gorsuch 1983). The researchers can then identify whether or not there is similar dimensions or factors across countries, and also the extent to which each variable is explained by the factor solution.

According to the flow diagram (Figure 6.3), there are three main decision points remind: (1) choosing an extraction method; (2) deciding number of factor to be retained; and (3) choosing a rotation method. Below, these points will be discussed one at a time.

Choosing an Extraction Method – Factor Analysis or Principal Components

The main difference between factor analysis and principal lies in the way the communalities are used. Principal component analysis assumes the communalities are initially 1 which means there is no error variance. On the other hand, factor analysis does assume error variance (Field 2000).

Although some researchers argue that principle components analysis is not a true factor analysis method (Ford, MacCallum et al. 1986; Snook and Gorsuch 1989), others point out there is barely any difference between these two methods, or that principle components analysis is preferable for data reduction (Guadagnoli and Velicer 1988; Velicer and Jackson 1990). Moreover, Snook and Gorsuch (1989) also point out that principle component analysis may give poor estimates of the loadings in small samples. However, where the samples are larger, most approaches will have similar result.

Therefore, principal components analysis is preferable to factor analysis in this research due to the following reasons:

- ◆ The sample of this research is relatively large;
- ◆ The result from reliability test earlier indicates that a few items may need to be reduced before analyzing the data;
- ◆ Principal component analysis is less complicated than factor analysis.

The extraction method produces factor loadings for every item on every extracted factor. The table of Communalities (Appendix D) shows variable Perceived Quality Difference 1 of China's database has particularly low communality – 0.254. According to Ahire and Devaraj (2001), only loadings greater than 0.30 are significant which suggest that PQD 1 should be dropped off from the further analysis.

Deciding Number of Factor to be Retained

Once extraction method has been chosen, the next step is to decide how many factors to be retained for rotation. Three main rules have been recommended by the researchers for determining how many factors should be retained (Hair, Anderson et al. 1998; Field 2000).

- ◆ Guttman-Kaiser rule: only factors with eigenvalues greater than 1.0 are retained;
- ◆ Determination based on percentage of variance: retain the factors extracted account for at least 60% of the variance;
- ◆ Determination based on scree-plot, the number of factors above the break is the number of factors to retain. Usually, it will be one or a few more than determined by the Guttman-Kaiser rule.

In current research, the first two rules will be applied to decide the number of factors. Table 6.8 is produced by software package SPSS that shows the extraction sums of square loading.

Table 6.8 Total Variance Explained

Component	Extraction Sums of Squared Loadings (China)			Extraction Sums of Squared Loadings (UK)		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.484	15.437	15.437	8.605	20.488	20.488
2	4.043	9.626	25.063	3.901	9.288	29.777
3	3.777	8.992	34.055	3.654	8.699	38.476
4	2.648	6.305	40.360	2.632	6.267	44.743
5	2.280	5.429	45.789	1.926	4.585	49.328
6	1.985	4.727	50.516	1.833	4.364	53.692
7	1.561	3.716	54.232	1.557	3.707	57.399
8	1.417	3.375	57.607	1.246	2.968	60.367
9	1.170	2.785	60.393	1.134	2.699	63.066
10	1.086	2.587	62.979	1.041	2.479	65.545

Table 6.8 indicates that ten components with eigenvalues > 1.0 in both China and UK samples. These ten extracted components together explain 62.98% of the variance in China's sample and 65.55% of the variance in UK's sample. It suggested ten factors should be retained for rotation.

Choosing a Rotation Method

Rotation is a way of maximizing high loadings and minimizing low loadings in order to simplify and clarify the data structure. There are two basic types of rotation: orthogonal rotation and oblique rotation. Orthogonal means the factors are assumed to be uncorrelated with one another, while oblique means factors are correlated. Varimax, quartimax and equamax are defined as orthogonal rotation methods. Varimax rotation is the most common choice by far. The common algorithms for oblique rotation are oblimin, promax and direct quartimin.

Conventional wisdom advises researchers to use orthogonal rotation because it produces more easily interpretable results. No matter which rotation method used, the factors are expected to be marked by high loadings for some variables and low loadings for others. Table 6.9 gives the loadings from Rotated

Component Matrix Tables conducted by SPSS (Full Rotated Component Matrix tables are in Appendix E and Appendix F).

Table 6.9 Rotated Component Martrix

Variables	Factor loadings (China)	Factor loadings (UK)	Variables	Factor loadings (China)	Factor loadings (UK)
Familiarity 1	0.770	0.777	Long-Term Orientation 1	0.544	0.636
Familiarity 2	0.826	0.789	Long-Term Orientation 2	0.703	-0.004
Collectivism 1	0.705	0.744	Long-Term Orientation 3	0.824	0.777
Collectivism 2	0.786	0.798	Long-Term Orientation 4	0.813	0.305
Collectivism 3	0.790	0.778	Long-Term Orientation 5	0.718	0.676
Collectivism 4	0.782	0.800	Perceived Quality Difference 1	-0.246	0.160
Collectivism 5	0.784	0.738	Perceived Quality Difference 2	-0.586	0.731
Collectivism 6	0.676	0.723	Perceived Quality Difference 3	-0.652	0.691
Masculinity 1	0.727	0.737	Perceived Functional Risk 1	0.770	0.749
Masculinity 2	0.805	0.747	Perceived Functional Risk 2	0.750	0.755
Masculinity 3	0.796	0.768	Perceived Financial Risk 1	0.828	0.724
Masculinity 4	0.756	0.731	Perceived Financial Risk 2	0.841	0.718
Uncertainty Avoidance 1	0.748	0.795	Perceived Financial Risk 3	0.743	0.711
Uncertainty Avoidance 2	0.815	0.837	Perceived Social Risk 1	0.787	0.785
Uncertainty Avoidance 3	0.701	0.735	Perceived Social Risk 2	0.849	0.775
Uncertainty Avoidance 4	0.618	0.742	Perceived Psychological Risk 1	0.796	0.682
Power Distance 1	0.745	0.826	Perceived Psychological Risk 2	0.331	0.443
Power Distance 2	0.747	0.830	Perceived Time Risk 1	0.868	0.759
Power Distance 3	0.790	0.841	Perceived Time Risk 2	0.773	0.717
Power Distance 4	0.740	0.834	The Propensity of Tesco Value	0.795	0.541
Power Distance 5	0.635	0.771	The Propensity of Tesco Regular	0.786	0.712

Generally speaking, the questionnaire produces an identical solution to the theoretical model identified from literature review, although there are few split loadings. The reason could be both the culture and perceived risk scales were well defined and practised in previous studies. Therefore, they are relatively reliable and validated to use in consumer research.

The framed cells are low loadings with factor scores under 0.50. In both China and UK sample, perceived quality difference 1 and perceived psychological risk 2 are split loadings under 0.40. In UK sample, long-term orientation 2 and long-term orientation 4 are shown as split loadings from the other three items. In order to maximize the value of cumulative variance extracted, items falling to exhibit simple structure should be deleted. Therefore,

first decision by rotation is to delete perceived quality difference 1¹ which has low loading in both countries.

Secondly, perceived psychological risk 2 has also low loading in both countries. But interestingly, when looking at perceived psychological risk 1 with perceived social risk 1 & 2 together, it shows that factor 7 has high coefficients for perceived social risk 1&2 and psychological risk 1 in both samples (Table 6.10 and Table 6.11).

Table 6.10 Rotated Component Matrix of Perceived Social Risk and Perceived Psychological Risk (China)

Factor	1	2	3	4	5	6	7	8	9	10
Perceived Social Risk 1	-.010	-.040	.108	-.044	.151	.038	.787	.000	.236	.063
Perceived Social Risk 2	-.055	-.126	.174	-.043	.078	-.003	.849	-.029	.128	.097
Perceived Psychological Risk 1	-.123	-.055	.179	-.013	.072	.054	.796	-.010	.116	.220
Perceived Psychological Risk 2	-.152	-.083	.021	-.150	.301	.061	.331	-.061	.222	.535

Table 6.11 Rotated Component Matrix of Perceived Social Risk and Perceived Psychological Risk (UK)

Factor	1	2	3	4	5	6	7	8	9	10
Perceived Social Risk 1	.319	.074	-.045	-.073	.069	-.081	.785	.067	.014	.061
Perceived Social Risk 2	.313	.167	.009	-.047	.033	.002	.775	.107	.058	.065
Perceived Psychological Risk 1	.427	.091	-.031	-.082	.099	-.056	.682	.038	.115	.090
Perceived Psychological Risk 2	.628	.063	.003	-.055	.053	-.161	.443	.025	.020	.054

This result suggests the items of perceived social risk (1 and 2) and perceived psychological risk 1 should be merged as one variable. The evidences are: firstly, the definition of psychological risk and social risk is similar (about attitude from people); secondly, the correlation coefficient between social risk and psychological risks in both countries are higher than 0.650, which identified a strong positive relationship between these two variables. Therefore, after deleting the low loading item – perceived psychological risk 2²; perceived social risk 1 and 2 and perceived psychological risk 1 are merged as one new variable – perceived social-psychological risk. This justification has been applied in both

¹ Perceived Quality Difference (PQD1) - The overall quality of Tesco own label products is usually as good as the branded alternative

² Perceived Psychological Risk 2 (PPR2) - I sometimes question whether buying Tesco own label products is the right thing to do.

samples (Figure 6.4)

Figure 6.4 Development of New Variable – Perceived Social-Psychological Risk

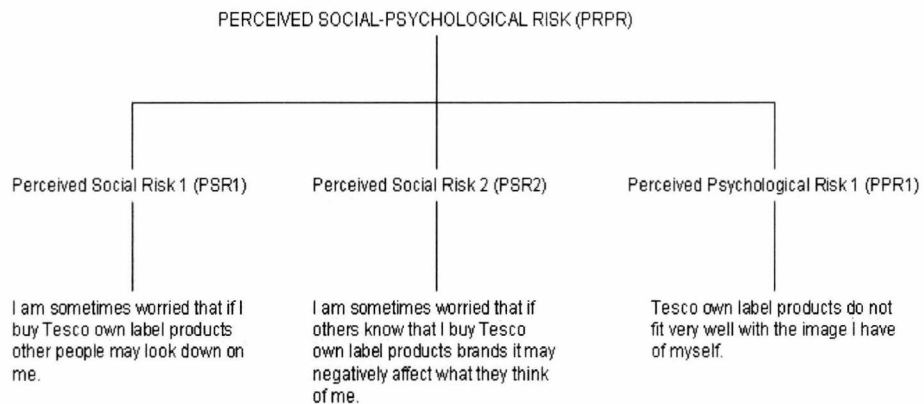


Table 6.8 also indicates that two items of long-term orientation have low and split loadings in UK sample^{1,2}. In order to assess factor structure similarity suggested by McDonald (1985), one country (UK) is selected as the ‘target’ and the other country’s (China) factor analysis is rotated to maximize the agreement between the two. This approach has been defined as target rotation (McDonald 1985). Because the two items have low loadings in UK sample, they are eliminated at this stage. Whether this variable as a whole should be dropped will be decided in the future discussion.

So far, by conducting exploratory factor analysis, thirty-six items and twelve independent variables are retained for the confirmatory factor analysis. All inter-correlations were positive and significant at the 0.01 level. The remaining items loaded to scales with alphas exceeding 0.60 demonstrating internal consistency of the measures and were maintained in the subsequent stages of the analysis.

6.4 Confirmatory Factor Analysis

Once the most meaningful factor structure has been decided by exploratory factor analysis, a hypothesis testing procedure is needed in order to study the

¹ Long-term Orientation 2 (LT2) - People like me would prefer more variety than more stability in their lives.

² Long-term Orientation 4 (LT4) - Life is for living today not worrying too much about the future.

relationship between observed variables and continuous latent variables. Therefore, a confirmatory factor analysis (CFA) is carried out using structural equations modeling to verify the reliability and validity of the scales. In confirmatory factor analysis (CFA), theory is a systematic set of casual relationships that provide the comprehensive explanation of a phenomenon. When researcher has abundant theory to specify the relationships and test the differences and similarities across countries, CFA is defined as a preferred technique for data specification (Fabrigar, Wegener et al. 1999; DiStefano and Hess 2005). Craig and Douglas (2005) also emphasize that CFA is a particularly useful method to test and refine conceptual models across countries. Typical applications of CFA that are used to develop accurate and reliable measures of construct in cross-national research are summarized in Table 6.12:

Table 6.12 Application of CFA in Cross-national Research

Application	Authors (Years)
Determine the dimensionality of a construct in multiple countries	(Netemeyer, Durvasula et al. 1991; Hsieh 2002)
The relationship of one set of constructs to another set in multiple countries	(Abe, Bagozzi et al. 1996)
Whether a particular consumer behavior model holds in more than one country	(Durvasula, Andrews et al. 1993)
The reliability and validity of constructs across different countries	(Keillor, Hult et al. 2004)
Whether a construct is manifested in the same way in a different country or context	(Nijssen and Douglas 2004)
Examine measure invariance in cross-national consumer research	(Singh 1995; Steenkamp and Baumgartner 1998; Sharma and Weathers 2003)

The aim of this research is to develop a construct of consumer behavior towards private label across countries, therefore, CFA is confirmed as an appropriate method to test scale validation. Before following the procedure of CFA by Anderson and Gerbing (1988), an overall model fit will be conducted in order to test whether the model is satisfactory for future analysis. The fit indices applied are mainly provided by computer software package – LISREL (Jöreskog and Sörbom 1993).

6.4.1 Unidimensionality Analysis

The overall model fit to the validation sample can be assessed statistically by the chi-square test, and the heuristically by a number of goodness-of-fit

indices which are used to assess the fit of the models across samples, but all models were informed by theoretical considerations (Baumgartner and Homburg 1996). It determines if the model being tested should be accepted or rejected. LISREL produces over 30 different goodness-of-fit measures, researchers recommend use of at least three or four tests (Jaccard and Wan 1996; Kline 1998). However, the choice of which measures should be reported is a matter of dispute. In this research, six most recommended measures will be reported which include: Chi-square/df, CFI, RMSEA, RMR, NNFI and IFI.

Relative Chi-square (Chi-square/df): the chi-square fit index divided by degrees of freedom which is used as a fundamental index to evaluate differences between nested models. A range between 2:1 and 3:1 is stated as an acceptable model by most researchers (Carmines and McIver 1981; Kline 1998). Some other researchers allow values up to 5:1 to consider an accepted fit level (Schumacker and Lomax 2004; Craig and Douglas 2005).

Comparative Fit Index (CFI): it is used to compare the existing model fit with a null model which assumes the indicator variables in the model are uncorrelated. CFI should be greater than 0.90 which is viewed as an adequate fit indicating that 90 percent of covariation in the data can be reproduced by the given model (Hulland, Chow et al. 1996; Kaplan 2000).

Goodness-of-Fit Index (GFI) is an indicator of model and thus shows how closely the model comes to perfectly reproduced baseline model. GFI over 0.9 indicates unidimensionality. In current research, GFI of UK sample is 0.93, however, the GFI of China sample is slightly lower than 0.93 – 0.88, it is still approaching the ideal level of unidimensionality.

Root Mean Square Error of Approximation (RMSEA): RMSEA model is based on the non-centrality parameter (Kaplan 2000) which represent a population-based measure. Schumacker and Lomax (2004) suggest RMSEA less than 0.05 is a good model fit. Hu and Bentler (1999) propose a less than 0.06 value of RMSEA as the cutoff. Generally speaking, RMSEA is less than 0.08 could be viewed as an adequate fit and considered satisfactory (Browne and Cudeck 1993; Hu and Bentler 1999).

Root Mean Square Residual (RMR): is the mean absolute value of the covariance residuals. The closer RMR is to 0, the better the model fit. To be considered as a good fit value, the literature suggest RMR should be <0.10. 0.08 even 0.04.

Non-Normed Fit Index (NNFI): NNFI is also called the Tucker-Lewis index (TLI) in AMOS. It is one of the fit indexes less affected by sample size. According to Kaplan (2000), NNFI is viewed as non-centrality goodness-of-fit indices which represent population-based parameters. Values above 0.90 suggest an adequate fit while greater than 0.95 indicate a good fit.

Incremental Fit Index (IFI): similar as CFI, IFI is used to compare the research's model to the fit of another model. Because IFI is relatively independent of sample size, it is favored by some researchers. Same as CFI, IFI should be greater than 0.90 as an adequate fit.

The measures of goodness-of-fit for current research are summarized in Table 6.13. It shows in both samples, the goodness-of-fit indexes of the proposed model can be considered satisfactory and meeting the minimum requirement values (Bentler and Bonnet 1980; Bagozzi and Yi 1998).

Table 6.13 The Goodness-of-fit Indexes of Proposed Model

	Chi-square	df	Chi-square/df	CFI	GFI	RMSEA	RMR	NNFI	IFI
China	1550.90	627	2.47	0.93	0.88	0.053	0.054	0.92	0.93
UK	1841.57	627	2.94	0.94	0.93	0.060	0.073	0.93	0.94

6.4.2 Reliability Analysis

After conducting exploratory factor analysis and testing goodness-of-fit indexes, a measurement model with 38 items has finally been established. Before carrying on with validity test, one more step of confirmatory factor analysis for each country will be run in order to identify any item did not load high enough on a single factor – reliability test.

Although Cronbach's alpha has been used in piloting study, Bollen (1989) states it is not a 'desirable' estimate of reliability of a scale. One of the reasons is it makes no allowances for correlated error of measurements, nor does it treat indicators influenced by more than one latent variable (Bollen 1989). Therefore, Anderson and Gerbing (1988) recommend a two-step procedure by using composite reliability (CR) and average variance extracted (AVE) to test the reliability of the construct instead of Cronbach's alpha.

Composite reliability (CR) is a measure of the overall reliability of a collection of heterogeneous but similar items. It assesses the internal consistency of a measure, 2 means square (Fornell and Larker 1981):

$$\text{Composite reliability} = \frac{[\text{SUM}(A)]^2}{[(\text{SUM}(A))^2 + \text{SUM}(B)]}$$

Where SUM(A) is the sum of standardized loading and SUM(B) is the sum of indicator measurement error. CR that greater than 0.6 ensures reasonable levels of scale reliability at both the overall level and country by country.

Average variance extracted (AVE) measures the amount of variance captured by a construct in relation to the variance due to random measurement error (Fornell and Larker 1981):

$$\text{Average variance extracted (AVE)} = \frac{[\text{SUM}(A^2)]}{[(\text{SUM}(A^2) + \text{SUM}(ei))]}$$

Where SUM(A²) is the sum of squared standardized loading, SUM(ei) is the sum of indicator measurement error. AVE varies from 0 to 1 that represents the ratio of the total variance due to the latent variable. A variance extracted of greater than 0.50 indicates that validity of both construct and individual variables is high (Dillon and Goldstein 1984). Table 6.14 shows the reliability details of scales used to represent construct of proposed model.

Table 6.14 Construct Reliability (Proposed Model)

		China			UK		
Construct	Items	Factor Loadings	Composite Reliability	Average Variance Extracted	Factor Loadings	Composite Reliability	Average Variance Extracted
Familiarity	F1	0.79	0.842	0.716	0.90	0.942	0.890
	F2	0.85			0.92		
Collectivism	CO1	0.63	0.866	0.520	0.69	0.871	0.531
	CO2	0.74			0.75		
	CO3	0.75			0.74		
	CO4	0.75			0.77		
	CO5	0.75			0.67		
	CO6	0.63			0.65		
Masculinity	MA1	0.65	0.803	0.449	0.65	0.790	0.439
	MA2	0.73			0.71		
	MA3	0.77			0.75		
	MA4	0.63			0.56		
Uncertainty Avoidance	UA1	0.66	0.831	0.557	0.79	0.867	0.623
	UA2	0.80			0.83		
	UA3	0.66			0.65		
	UA4	0.51			0.64		
Power Distance	PO1	0.70	0.812	0.466	0.81	0.907	0.663
	PO2	0.68			0.80		
	PO3	0.76			0.84		
	PO4	0.68			0.81		
	PO5	0.53			0.70		
Long-term Orientation	LT1	0.61	0.769	0.529	0.37	0.277	0.114
	LT3	0.78			0.32		
	LT4	0.69			0.29		
Perceived Quality Difference	PQD2	0.63	0.678	0.516	0.73	0.732	0.578
	PQD3	0.75			0.75		
Perceived Functional Risk	PFUR1	0.71	0.803	0.673	0.79	0.775	0.636
	PFUR2	0.86			0.77		
Perceived Financial Risk	PFIR1	0.79	0.864	0.680	0.82	0.902	0.753
	PFIR2	0.84			0.90		
	PFIR3	0.76			0.82		
Perceived Social-Psychological Risk	PSR1	0.73	0.865	0.682	0.81	0.851	0.657
	PSR2	0.88			0.82		
	PPR1	0.79			0.76		
Perceived Time Risk	PTR1	0.72	0.848	0.736	0.79	0.813	0.685
	PTR2	0.94			0.83		
The Propensity of Private Brands	TV	0.79	0.772	0.631	0.67	0.633	0.463
	TR	0.75			0.64		

Table 6.14 shows all the Composite reliability are greater than 0.60; which are above the minimum recommended level (Nunnally 1978) except reliability of Long-term orientation in UK. Moreover, the measures correlated well within the model's construct, most of the factor loadings are higher than the minimum of

0.50 (Campbell and Fiske 1959) except the construct of Long-term Orientation in UK. In order to improve reliability and validity of the whole construct, the poorly fitting items (Composite reliability <0.6, factor loadings <0.5) should be deleted (Batra and Sinha 2000). Because the factor loadings of all three long-term orientation items are below 0.50, and composite reliability is far below 0.6, the whole long-term orientation construct is eliminated from the proposed model in both samples. It can also be argued that this Chinese value based construct may not work in a western environment.

After deleting the three items of Long-term Orientation from the proposed model, the procedure above needs to be repeated to test reliability of the new model. The goodness-of-fit indexes and construct reliability of the new model are shown in Table 6.15 and Table 6.16:

Table 6.15 The goodness-of-fit Indexes of Modified Model

	Chi-square	df	Chi-square/df	CFI	RMSEA	RMR	NNFI	IFI
China	1275.39	526	2.42	0.93	0.052	0.047	0.93	0.94
UK	1865.97	526	3.55	0.93	0.069	0.073	0.92	0.93

Table 6.16 Construct Reliability (Modified Model)

Construct	Items	China			UK		
		Factor Loadings	Composite Reliability	Average Variance Extracted	Factor Loadings	Composite Reliability	Average Variance Extracted
Familiarity	F1	0.78	0.808	0.678	0.89	0.914	0.842
	F2	0.81			0.90		
Collectivism	CO1	0.63	0.866	0.520	0.69	0.871	0.529
	CO2	0.74			0.75		
	CO3	0.75			0.74		
	CO4	0.75			0.76		
	CO5	0.75			0.67		
	CO6	0.63			0.65		
Masculinity	MA1	0.65	0.803	0.449	0.65	0.816	0.439
	MA2	0.73			0.71		
	MA3	0.77			0.75		
	MA4	0.63			0.76		
Uncertainty Avoidance	UA1	0.67	0.821	0.541	0.79	0.839	0.569
	UA2	0.82			0.82		
	UA3	0.64			0.64		
	UA4	0.49			0.64		
Power Distance	PO1	0.69	0.811	0.465	0.80	0.907	0.662
	PO2	0.68			0.80		
	PO3	0.76			0.84		

	PO4	0.67			0.81		
	PO5	0.54			0.70		
Perceived Quality Difference	PQD2	0.64	0.685	0.523	0.74	0.740	0.588
	PQD3	0.76			0.77		
Perceived Functional Risk	PFUR1	0.72	0.803	0.674	0.77	0.775	0.636
	PFUR2	0.85			0.79		
Perceived Financial Risk	PFIR1	0.79			0.83		
	PFIR2	0.84	0.852	0.657	0.90	0.902	0.682
	PFIR3	0.77			0.82		
Perceived Social-Psycho Risk	PSR1	0.73			0.81		
	PSR2	0.88	0.865	0.682	0.83	0.851	0.657
	PPR1	0.79			0.75		
Perceived Time Risk	PTR1	0.82	0.819	0.693	0.80	0.817	0.690
	PTR2	0.83			0.83		
The Propensity of Private Brands	TV	0.79	0.772	0.631	0.68	0.639	0.467
	TR	0.75			0.65		

Table 6.15 indicates that the goodness-of-fit indexes of the modified models reach the minimum requirement value which means the modified model is satisfactory for future confirmatory data analysis. Table 6.16 shows all the composite reliability values are greater than 0.60 which are above the minimum recommended level ($p < 0.01$). The measures correlated well within the model's construct, most of the factor loadings are higher than the minimum of 0.50 except Uncertainty Avoidance 4 (0.49) in China sample. In order to keep an identical construct in cross-national study, this item eliminated from both countries. So far, the modified model for validity test has 34 items and 11 variables.

6.4.3 Convergent Validity

Whereas reliability concerns how much a variable influence a set of items, validity concerns whether the variable is the underlying cause of item covariation. It is inferred from the manner in which a scale was constructed, its ability to predict specific events, or its relationship to measures of other constructs. There are mainly three types of validity tests that correspond to these operations which include: context validity, criterion-related validity and construct validity (DeVellis 1991).

The most common validity test in cross-national marketing research is construct validity which is directly concerned with the theoretical relationship of a

variable to other variable. In another words, it is a way of assessing validity by investigating if the measure really is measuring the theoretical construct it is suppose to be (Cronbach and Meehl 1955). There are two approaches construct – convergent validity and discriminate validity.

Convergent Validity refers to the degree to which a measure is correlated with other measures that it is theoretically predicted to correlate with. In other words, it tests for the within-dimension interrelationships of measures. In current research, the measures correlated well within the model's constructs, with significant factor loadings of 0.54 to 0.90 in both samples ($p < 0.01$). These are higher than minimum of 0.5 needed to indicate satisfactory convergent validity (Campbell and Fiske 1959; Bagozzi and Yi 1998).

Moreover, there are a few average variance extracted values are under 0.5, the recommended level of convergent validity. However, LISREL result shows that if these items are eliminated, it will affect the reliability of the model as a whole. Therefore, these items are kept for future analysis.

6.4.4 Discriminant Validity

The concept of discriminant validity was first introduced by Campbell and Fiske (1959). A successful evaluation of discriminant validity shows that a test of a concept is not highly correlated with other tests designed to measure theoretically different concepts. In the other words, it illustrates the uniqueness of a variable. There are three main tests of discriminant validity: correlation, AVE and squared correlation coefficients and chi-square differences.

First of all, discriminant Validity tests for the degree to which concepts that are not theoretically interrelated are distinct and can be indicated by interfactor correlations that are significantly lower than 1.0 (Marsh and Hocevar 1983; Anderson and Gerbing 1988). In current research, it is confident to say that the case for discriminant validity is adequately strong as all the inter-correlation value are significantly lower than 1.0 in both countries (Table 6.17 and Table 6.18).

Table 6.17 Descriptive Statistics and Inter-Correlation - China

VARIABLES	Mean	SD	Inter-Correlation											
			F	CO	MA	UA	PO	PQD	PFUR	PFIR	PSPR	PTR		
Familiarity	2.80	0.85	1.00											
Collectivism	3.51	0.64	0.16(0.03)	1.00										
Masculinity	3.39	0.78	0.07(0.00)	0.15(0.02)	1.00									
Uncertainty Avoidance	3.79	0.54	0.12(0.01)	0.22(0.05)	0.20(0.04)	1.00								
Power Distance	2.22	0.66	0.10(0.01)	0.09(0.01)	0.11(0.01)	0.02(0.00)	1.00							
Perceived Quality Difference	3.17	0.63	0.20(0.04)	0.09(0.01)	0.04(0.00)	0.07(0.00)	0.05(0.00)	1.00						
Perceived Functional Risk	3.25	0.78	0.28(0.08)	0.12(0.01)	0.00(0.00)	0.14(0.02)	0.05(0.00)	0.41(0.17)	1.00					
Perceived Financial Risk	2.71	0.70	0.13(0.02)	0.08(0.01)	0.03(0.00)	0.05(0.00)	0.13(0.02)	0.38(0.14)	0.36(0.13)	1.00				
Perceived Social-Psychol Risk	2.22	0.63	0.04(0.00)	0.13(0.02)	0.05(0.00)	0.06(0.00)	0.30(0.09)	0.25(0.06)	0.18(0.03)	0.42(0.18)	1.00			
Perceived Time Risk	2.75	0.77	0.23(0.05)	0.07(0.00)	0.04(0.00)	0.05(0.00)	0.15(0.02)	0.37(0.14)	0.36(0.13)	0.47(0.22)	0.36(0.13)	1.00		

M=mean; SD=standard deviation; variance shared (square of the construct correlation) is shown in parentheses next to correlation coefficients.

Table 6.18 Descriptive Statistics and Inter-Correlation - UK

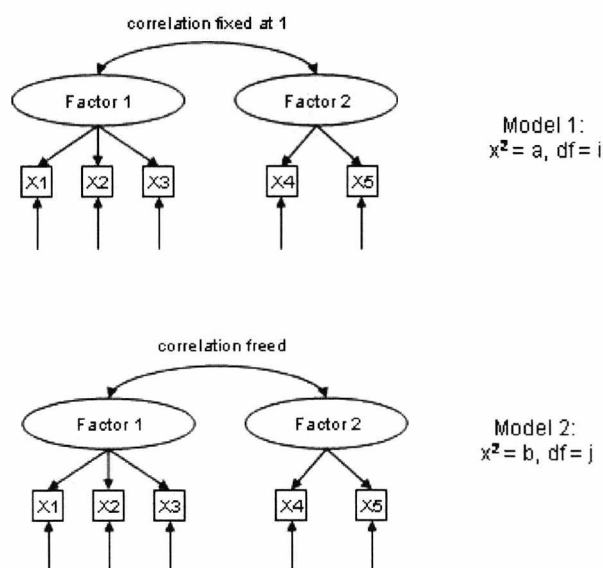
VARIABLES	M	SD	Inter-Correlation										
			F	CO	MA	UA	PO	PQD	PFUR	PFIR	PSPR	PTR	
Familiarity	3.54	1.02	1.00										
Collectivism	3.11	0.76	0.14(0.02)	1.00									
Masculinity	2.65	0.88	0.11(0.01)	0.13(0.02)	1.00								
Uncertainty Avoidance	3.78	0.69	0.05(0.00)	0.22(0.05)	0.03(0.00)	1.00							
Power Distance	2.44	0.77	0.06(0.00)	0.01(0.00)	0.28(0.08)	0.15(0.02)	1.00						
Perceived Quality Difference	2.64	0.77	0.26(0.07)	0.07(0.00)	0.12(0.01)	0.28(0.08)	0.19(0.34)	1.00					
Perceived Functional Risk	2.63	0.88	0.38(0.17)	0.05(0.00)	0.07(0.00)	0.26(0.07)	0.15(0.02)	0.46(0.21)	1.00				
Perceived Financial Risk	2.43	0.90	0.44(0.19)	0.08(0.01)	0.16(0.03)	0.34(0.12)	0.22(0.05)	0.47(0.22)	0.64(0.41)	1.00			
Perceived Social-Psychol Risk	2.19	0.89	0.25(0.06)	0.05(0.00)	0.18(0.03)	0.23(0.05)	0.24(0.06)	0.33(0.11)	0.45(0.20)	0.51(0.26)	1.00		
Perceived Time Risk	2.46	0.92	0.40(0.16)	0.06(0.00)	0.16(0.03)	0.23(0.05)	0.19(0.34)	0.36(0.13)	0.61(0.37)	0.65(0.42)	0.52(0.27)	1.00	

M=mean; SD=standard deviation; variance shared (square of the construct correlation) is shown in parentheses next to correlation coefficients.

Another strong test for assessing discriminant validity took into account the AVE. Although, there are a few average variance extracted values are under 0.5 - the recommended level of convergent validity (Table 6.14), they are still larger than squared construct correlation. The average variance accounted for by each construct among the individual items exceeds the amount of variance the construct shares with remaining constructs, providing the evidence of discriminant validity (Fornell and Larker 1981).

The final test of validity was conducted by testing the chi-square difference. The differences between chi-square of baseline and unconstrained models (which fixed at 1.0 phi matrix for each pair of dimensions) were significant ($p < 0.01$) indicating that values for the unconstrained model were significantly lower than those values of the constrained model. More specific, if the change in chi-square is significant (i.e. change in $\chi^2: a - b > 3.84$, change in df: $i - j = 1$) then Model 2 is superior to Model 1, and the factors discriminante (Figure 6.5) Thus there is evidence of discriminant validity between model constructs (Anderson and Gerbing 1988).

Figure 6.5 Chi-square Difference in Discriminant Test



In current research, chi-square test in each set of data has been divided into two groups – 1) group of culture dimensions and familiarity; 2) group of perceived risks and perceived quality difference. In the model of UK, the chi-square of unconstrained model is 444.90 (df = 160) for culture dimensions and familiarity; and the chi-square of unconstrained model is 110.55 (df = 44) for perceived risk and perceived quality difference.

In the model of China, the chi-square of unconstrained model is 316.47 (df = 160) for culture dimensions and familiarity; and the chi-square of unconstrained model is 95.57 (df= 44) for perceived risks and perceived quality difference. Table 6.19 to Table 6.22 show that the differences between chi-square of baseline and unconstrained models are significantly higher than 3.84 and the change in df is equal to one in all four groups.

Table 6 19 Chi-square when the Correlation of Each Pair of Factors Fixed at 1 – Model of Culture Dimensions and Familiarity of UK (df = 161)

	CO	MA	UA	PD	F
Collectivism (CO)					
Masculinity (MA)	559.32				
Uncertainty Avoidance (UA)	647.41	666.16			
Power Distance (PD)	614.06	540.51	540.51		
Familiarity (F)	591.11	589.34	500.05	581.81	

Table 6 20 Chi-square when the Correlation of Each Pair of Factors Fixed at 1 – Model of Perceived Risks and Perceived Quality Difference of UK (df = 45)

	PFUR	PFIR	PSPR	PTR	PQD
Perceived Functional Risk (PFUR)					
Perceived Financial Risk (PFIR)	140.63				
Perceived Social-Psycho Risk (PSPR)	180.28	170.54			
Perceived Time Risk (PTR)	148.37	138.01	174.55		
Perceived Quality Difference (PQD)	176.84	168.71	211.81	183.87	

Table 6 21 Chi-square When the Correlation of Each Pair of Factors Fixed at 1 – Model of Culture Dimensions and Familiarity of China (df = 161)

	CO	MA	UA	PD	F
Collectivism (CO)					
Masculinity (MA)	453.53				
Uncertainty Avoidance (UA)	494.41	505.33			
Power Distance (PD)	504.67	473.50	505.33		
Familiarity (F)	811.66	449.10	469.62	440.37	

Table 6 22 Chi-square When the Correlation of Each Pair of Factors fixed at 1 – Model of Perceived Risks and Perceived Quality Difference of China (df = 45)

	PFUR	PFIR	PSPR	PTR	PQD
Perceived Functional Risk (PFUR)					
Perceived Financial Risk (PFIR)	200.46				
Perceived Social-Psycho Risk (PSPR)	254.63	220.23			
Perceived Time Risk (PTR)	191.50	185.52	229.71		
Perceived Quality Difference (PQD)	344.90	333.12	313.13	321.13	

6.4.5 Multi-group CFA

Research in several domains indicates that CFA is a preferable analytical method when there is sufficient theoretical and empirical basis for data specification (Floyd and Widaman 1995; Gerbing and Hamilton 1996). Moreover, CFA, in particular, multi-group CFA is appropriate given a need to develop a measure that would be tested and compared across multiple countries. Furthermore, CFA provided us with necessary measures of invariance to test such comparability (Strizhakova, Coulter et al. 2008).

Measurement Invariance

Several tests of cross-national measurement invariance are performed as a prerequisite to conducting comparisons across countries by Steenkamp and Baumgartner (1998). Three levels of invariance were tested in this study:

Configural Invariance approach is based on Thurstone's principle of simple structure which is necessary when the goal is to explore the basic structure of construct across cultures (Horn, NMcArdle et al. 1983). It asks whether the same simple pattern of factor loadings is obtained in both samples. There are three requirements to support configural invariance: first of all, the specified model should fit the data well and if all factor loadings are significantly and substantially different from zero; secondly, the correlations between the factors are significantly below unity; Thirdly, it is necessary to show that there is discriminant validity between the factors comprising the construct under investigation (Steenkamp and Baumgartner 1998; Steenkamp and Baumgartner 2000).

Metric Invariance provides a stronger test of invariance by introducing the concept of equal metrics or scale intervals across countries (Rock, Werts et al. 1978). If an item satisfies the requirement of metric invariance, difference scores on the item can be meaningfully compared across countries, and these observed item differences are indicative of similar cross-national differences. Since the factor loadings carry the information about how changes in latent scores relate to changes in observed scores, metric invariance can be tested by constraining the loadings to be the same across countries:

$$\Lambda^1 = \Lambda^2 = \dots = \Lambda^G.$$

Measurement Error Invariance, a final form of invariance that has been imposed on the measurement model is that the amount of measurement error is invariant across countries. This is tested by specifying that:

$$\Theta^1 = \Theta^2 = \dots = \Theta^G.$$

If items are metrically invariant, and if the error variances and factor variances are cross-nationally invariant, the items are equally reliable across countries.

For current research, the multivariate data sets are observations from two main groups – UK and China. In each main group, the variables of cultural dimensions and perceived risks were tested separately. For these data sets, it will be interesting to find out whether or not the grouping variable has any influence on the structural equation model for the observed variables. The statistical methods for multiple group structural equation modeling may be used to determine whether or not the grouping variable has an influence on the model.

To assess the invariance of the factor structure, multiple group analysis was conducted in LISREL. There is evidence of full configural invariance, as all items significantly loaded on the same constructs across countries. The hypothesis of full metric invariance is tested via constraining the factor loadings to be invariant across countries (Steenkamp and Baumgartner 1998).

However, full metric invariance was not achieved in the group of culture (China). Byrne and Shavelson et. al (1989) argued that full metric invariance was not necessary in order for further tests of invariance and substantive analyses, such as comparisons of factors means, to be meaningful, provided that at least one item was metrically invariant. Partial metric invariance only requires cross-country invariance of the zero loadings and of some, but not necessary all, of the salient loadings (Byrne, Shavelson et al. 1989). Constraints on the parameters were relaxed according to the values of the modification indicis (MI). Invariance constraints should be relaxed only when MIs are significant and expected parameter changes (EPCs) are substantial. For current research, partial metric invariance was achieved with 1 of 18 invariance constraints (Uncertainty Avoidance 2) relaxed in the group of cultural dimensions of China.

Once partial metric invariance is supported, scalar invariance can be tested. The intercepts of those items that are not metrically invariant across groups are left unconstrained across countries, while the intercepts of the other items are held invariant. It is possible that some items have invariant loadings but cross-nationally different intercepts. It is possible that some items have invariant loadings but cross-nationally different intercepts. In this research, full scalar invariance is achieved in all four groups – culture (UK and China) and risk (UK and China).

These conditions were deemed satisfactory to compare construct means (Taylor and Okazaki 2006). Furthermore, scale reliabilities are broadly similar across groups and the risk of bias in the regression model has been minimized (Steenkamp and Baumgartner 1998).

Multiple Group Modeling

This research is designed to study cultural differences in private label consumer behavior, eventually relating these differences to important marketing strategies. Therefore, it is important to determine whether the measurement structure of the consumer behavior operates the same way across countries.

The test begins with an assessment of configural invariance, which asks whether the same simple pattern of factor loading is obtained in both samples. The result of both cultural dimensions and perceived risks tests indicate that the same patterns of parameters are able to fit the data for each application, but not that parameter estimates took on the same, or even similar values for different groups. Therefore, the hypothesis is rejected which suggesting that we can begin to explore hypotheses of countries differences towards private label brand consumer behavior.

Next, metric invariance tests the equivalence of metrics and scale intervals between countries by constraining factor loadings to be equal across countries. The analysis of both tests suggests that the hypothesis of invariance of factor loadings is rejected. Strictly speaking, this finding suggests that while the numbers of factors are the same of both groups, the relationship between the variables and their corresponding factors is not (χ^2 difference > 7.82).

In addition, the invariance of the measurement error variances is assessed by additionally constraining the error variances to be equal across the groups (Steenkamp and Baumgartner, 1998). This micro-level final step refers to item scalar equivalence. It shows that the items in two data sets are metrically invariant, and the error variances are cross-nationally invariant, therefore, the items are equally reliable across countries. Table 6.23 and Table 6.24 display the result of levels of invariance test in this study.

Table 6 23 Result of Multi-Group Analyses of Cultural Dimensions between Two Groups

Model*	χ^2	df	P-Value	$\chi^2 - \chi^2_1$	df-df₁
Model 0	688.39	264	0.000	-	-
Model 1	700.87	278	0.000	11.48	14
Model 2	875.78	296	0.000	174.91	8
Model 3	916.79	300	0.000	41.01	4

*Model 0: No invariance constraints

Model 1: Invariance of factor loadings

Model 2: Invariance of factor loadings and measurement error variances

Model 3: Invariance of factor loadings, measurement error variances, and factor variances and covariances

Table 6 24 Result of Multi-Group Analyses of Perceived Risks between Two Groups

Model*	χ^2	df	P-Value	$\chi^2 - \chi^2_1$	df-df₁
Model 0	357.13	67	0.000	-	-
Model 1	371.88	73	0.000	14.75	6
Model 2	412.02	80	0.000	40.14	9
Model 3	460.93	84	0.000	48.91	4

*Model 0: No invariance constraints

Model 1: Invariance of factor loadings

Model 2: Invariance of factor loadings and measurement error variances

Model 3: Invariance of factor loadings, measurement error variances, and factor variances and covariances

6.5 Full Model

So far, These conditions were deemed satisfactory to compare construct means (Taylor and Okazaki 2006). Also, the chi-square differences between each model provided a test of the pre-condition for testing the invariance of structural weights. Since the measurement model appeared to be invariant across subgroups, we could continue the analysis by testing the hypotheses concerning the structural weights.

6.5.1 The Result of Model Variability

Squared Multiple Correlation (R^2) is the proportion variability in a data set that is accounted for by the structural model. It provides a measure of how well the outcomes to be predicted by the model. The result of squared multiple correlation for structural equations was produced by LISREL (see Table 6.25). In both countries, perceived functional risk is the strongest predictor of private label propensity. In the UK, perceived financial risk is also a strong predictor by comparing with the other variable, but in China, it is the weakest factor while predicting private label propensity. Altogether, the perceived risks and perceived quality difference account for 44 per cent of the variance in the propensity towards private label product in the UK and 73 per cent in China. In the other words, this model explains more of the variability in the private label product propensity in China than it does in the UK.

Table 6.25 Squared Multiple Correlations for Structural Equations

	Perceived Quality Difference	Perceived Functional Risk	Perceived Financial Risk	Perceived Social-Psychological Risk	Perceived Time Risk	Private Label Proensity
UK	0.19	0.53	0.51	0.28	0.45	0.44
China	0.17	0.38	0.13	0.21	0.21	0.73

6.5.2 Summary of Exploratory Factor Analysis Results

The purpose of performing the EFA is to extract a minimum number of factors that explain the co-variation among the observed variables. Here, EFA was used to extract and minimize the number of dimensions and items that explain the relationship between the observed and latent variables.

For the full model, the EFA extracted ten independent variables and thirty-two items. The variables of perceived social risk and psychological risk have been merged as one new variable – perceived social-psychological risk which contains three items (Figure 6.4). The original thirty-eight items have been reduced to thirty-two items by eliminating one item from perceived quality difference, one item from uncertainty avoidance, the entire long-term orientation dimension and one item from perceived psychological risk. Table 6.26 and Table 6.27 show the means, standard deviations, factor loadings and item reliabilities in both models of UK and China. All the factor loadings are over 0.60 and all the Cronbach's Alpha are over 0.65.

Table 6.26 Results of Exploratory Factor Analysis of UK Model

Questionnaire Items	Mean	SD	Factor Loading	Cronbach's Alpha
Cultural Dimensions				
<i>Collectivism</i>				0.860
Individuals should sacrifice self-interest for the benefit of society as a whole	3.02	1.002	0.744	
Individuals should support social causes even when it is difficult	3.24	0.964	0.799	
Individual success is more rewarding than being part of a winning team	3.14	1.019	0.784	
The welfare of society as a whole is more important than individual rewards	3.15	1.000	0.801	
Individuals should pursue their goals only after considering the welfare of others	3.08	0.933	0.740	
Group loyalty should be encouraged even if individual goals suffer	3.04	1.010	0.722	
<i>Masculinity</i>				0.765
It is more important for men to have a professional career than it is for women	2.31	1.176	0.740	
Men usually solve problems with logical analysis whereas women usually solve problems with intuition	2.69	1.143	0.751	
Solving difficult problems usually requires an active, forcible approach, which is typical of men	2.51	1.096	0.775	
There are some jobs a man can always do better than a woman	3.10	1.161	0.742	
<i>Uncertainty Avoidance</i>				0.818
It is always important to closely follow instructions and procedures when given them	3.68	0.898	0.816	
Rules/regulations are important because they inform people of what is expected of them	3.86	0.812	0.849	
Standardized work procedures are generally helpful	3.84	0.773	0.747	
<i>Power Distance</i>				0.894
People in managerial positions should take most decisions without consulting their subordinates	2.45	0.894	0.829	
People in managerial positions should not ask the opinions of their subordinates too frequently	2.46	0.888	0.833	
People in managerial positions should avoid social interaction with their subordinates	2.32	0.973	0.848	
People in managerial positions should not delegate important tasks to their subordinates	2.34	0.899	0.841	
Operational staff should not disagree with decisions made by their managers	2.60	0.916	0.774	
Perceived Risks				
<i>Perceived Functional Risk</i>				0.764
Sometime I am suspicious about the quality of Tesco own label products	2.74	1.019	0.798	
I am often disappointed with the quality of Tesco own label products	2.51	0.939	0.804	
<i>Perceived Financial Risk</i>				0.885
I sometimes feel that buying Tesco own label products is a waste of money	2.36	0.993	0.805	

I sometimes feel that Tesco own label products are not worth the money I spend on them	2.44	1.011	0.810	
Buying Tesco own label products is not always a good way to spend my money	2.51	0.987	0.804	
<i>Perceived Social-Psychological Risk</i>				0.839
I am sometimes worried that if I buy Tesco own label products other people may look down on me	2.13	1.021	0.846	
I am sometimes worried that if others know that I buy Tesco own label products brands it may negatively affect what they think of me	2.13	1.040	0.872	
Tesco own label products do not fit very well with the image I have of myself	2.30	1.013	0.731	
<i>Perceived Time Risk</i>				0.795
I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up disappointed and have to look for a replacement	2.51	1.006	0.810	
I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up complaining and seeking a refund	2.41	1.006	0.771	
Other variables				
<i>Familiarity</i>				0.903
I am well aware of the range of Tesco own label products available	3.60	0.984	0.949	
I have plenty of experience in using Tesco own label products	3.47	1.145	0.950	
<i>Perceived Quality Difference</i>				0.727
The nutritional quality of some Tesco own label products is inferior to that of the branded alternatives	2.77	0.852	0.885	
Some Tesco own label products are not as safe as the branded alternatives	2.50	0.895	0.873	

Table 6.27 Results of Exploratory Factor Analysis of China Model

Questionnaire Items	Mean	SD	Factor Loading	Cronbach's Alpha
Cultural Dimensions				
<i>Collectivism</i>				0.856
Individuals should sacrifice self-interest for the benefit of society as a whole	3.30	0.930	0.710	
Individuals should support social causes even when it is difficult	3.54	0.834	0.794	
Individual success is more rewarding than being part of a winning team	3.66	0.808	0.780	
The welfare of society as a whole is more important than individual rewards	3.59	0.802	0.778	
Individuals should pursue their goals only after considering the welfare of others	3.54	0.830	0.788	
Group loyalty should be encouraged even if individual goals suffer	3.46	0.855	0.695	
<i>Masculinity</i>				0.787
It is more important for men to have a professional career than it is for women	3.63	1.045	0.732	
Men usually solve problems with logical analysis whereas women usually solve problems with intuition	3.41	0.993	0.805	
Solving difficult problems usually requires an active, forcible approach, which is typical of men	3.26	0.938	0.799	
There are some jobs a man can always do better than a woman	3.26	1.031	0.757	
<i>Uncertainty Avoidance</i>				0.752
It is always important to closely follow instructions and procedures when given them	3.58	0.754	0.773	
Rules/regulations are important because they inform people of what is expected of them	3.68	0.744	0.834	
Standardized work procedures are generally helpful	3.98	0.663	0.701	
<i>Power Distance</i>				0.803
People in managerial positions should take most decisions without consulting their subordinates	2.13	0.886	0.749	
People in managerial positions should not ask the opinions of their subordinates too frequently	2.26	0.898	0.754	
People in managerial positions should avoid social interaction with their subordinates	2.20	0.862	0.798	
People in managerial positions should not delegate important tasks to their subordinates	2.24	0.871	0.734	
Operational staff should not disagree with decisions made by their managers	2.28	0.880	0.666	
Perceived Risks				
<i>Perceived Functional Risk</i>				0.760
Sometime I am suspicious about the quality of Tesco own label products	3.23	0.864	0.896	
I am often disappointed with the quality of Tesco own label products	3.27	0.867	0.844	

<i>Perceived Financial Risk</i>				0.841
I sometimes feel that buying Tesco own label products is a waste of money	2.60	0.811	0.845	
I sometimes feel that Tesco own label products are not worth the money I spend on them	2.77	0.806	0.846	
Buying Tesco own label products is not always a good way to spend my money	2.76	0.793	0.771	
<i>Perceived Social-Psychological Risk</i>				0.840
I am sometimes worried that if I buy Tesco own label products other people may look down on me	2.27	0.718	0.799	
I am sometimes worried that if others know that I buy Tesco own label products brands it may negatively affect what they think of me	2.19	0.736	0.887	
Tesco own label products do not fit very well with the image I have of myself	2.20	0.711	0.839	
<i>Perceived Time Risk</i>				0.806
I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up disappointed and have to look for a replacement	2.81	0.832	0.856	
I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up complaining and seeking a refund	2.69	0.854	0.863	
Other variables				
<i>Familiarity</i>				0.798
I am well aware of the range of Tesco own label products available	2.87	0.870	0.906	
I have plenty of experience in using Tesco own label products	2.75	0.983	0.911	
<i>Perceived Quality Difference</i>				0.656
The nutritional quality of some Tesco own label products is inferior to that of the branded alternatives	3.12	0.723	0.865	
Some Tesco own label products are not as safe as the branded alternatives	3.22	0.732	0.851	

6.5.3 Summary of Confirmatory Factor Analysis Results

CFA is a multivariate statistical procedure which is used to test how well the measured variables represent the number of constructs. In the other words, it can be used to confirm or reject the measurement theory.

Structural equation modeling software LISREL has been used in order to perform CFA. The general structural equation model comprise of two components: the measurement and the structural model. The measurement model shows the relations between latent variables and their indicators while the structural model describes the relationship between latent variables and observed variables that are not the indicator of latent variables. Hult et al (2008) pointed that the CFA procedures of cross-national research should include assessment for unidimensionality, reliability and construct validity.

Unidimensionality analysis was conducted on the full data set excluding missing data in both UK and China models. Six most recommended measures were reported which include: Chi-square/df, CFI, RMSEA, RMR, NNFI and IFI (Table 6.12). In order to check for unidimensionality, Factors in the model are examined to see how closely they represent the same construct. A comparative fit index (CFI) above 0.90 for the model implies there is strong evidence of unidimensionality (Bryne, 1994).

A model with ten latent variables and thirty-two items emerged after EFA test. All the factor loadings are greater than 0.6 and all the composite reliability are over 0.6 in the model of both countries. After the reliability test, a common used validity test of cross-national marketing research has been conducted – construct validity which is directly concerned with the theoretical relationship of a variable to other variables. In this chapter, two approaches of construct validity – convergent validity and discriminate validity were conducted.

Convergent validity may be evaluated by the average variance extracted of the construct explained by the AVE indicators. At the item level, it can be examined by the item-to-item total and inter-item correlations and the factor loading of the indicators. In this research, firstly, all the factor loadings were significant ($p < 0.01$) on their hypothesized factors which provided indicative evidence of convergent validity (Anderson and Gerbing, 1988; Widaman, 1985); also, the Average Explained Variance (AVE) corresponding to each dimension are above or approaching 0.50, which satisfies Bagozzi and Yi's (1988) criterion for convergent validity.

In addition, tests of discriminant validity offer evidence of items cross-loading onto conceptually similar constructs. Three basic methods have been used to test the discriminant validity namely pairwise factor correlation, AVE and chi-square differences. Also, the most comprehensive approach – multi-group CFA was used to establish construct equivalence.

The result shows all the inter-correlation values were significantly lower than 1.0 in both countries (Table 6.17 and Table 6.18). Another strong test for assessing discriminant validity took into account the AVE which can also be found in these two tables. The average variance accounted for each construct among the individual items exceeds the amount of variance the constructed shares with remaining constructs (square of the construct correlation) providing evidence of discriminant validity (Fornell and Larcker, 1981).

Finally, the differences between chi-square of baseline and unconstrained models (which fixed at 1.0 phi matrix for each pair of dimensions) by hypothesized as independent were significant ($p < 0.01$) indicating that values for the unconstrained model were significantly lower than the values of the constrained model (Table 6.19 and Table 6.20). Thus, there is evidence of

discriminant validity between models constructs in both countries (Anderson and Gerbing, 1988).

6.5.4 Summary of Multi-group CFA Results

Both Kumar (2000) and Mullen (1995) have noted that cross-cultural comparisons will not be meaningful if the numbers on the response scales or the items have different meanings across cultures. Chapter Five has demonstrated that measurement equivalence encompasses three critical components: calibration equivalence, translation and metric equivalence (Craig & Douglas, 2000; Sekaran, 1983; Steenkamp and Baumgartner, 1998). The calibration and translation equivalence have been established which ensured the measurement constructs are converted correctly between cultures and have equivalent meaning in each context.

In addition, in order to achieve metric equivalence (inclusive of scoring consistency and scalar equivalence), multi-group CFA via structural equation models has been used in discriminant validity test. There was evidence of full configural invariance and scalar invariance, as all items significantly loaded on the same construct across countries. The hypothesis full metric invariance was tested via constraining one factor loading (UN2) to be invariant in the model of China. The result showed that the items in both data sets are cross-nationally invariant. Therefore, the items are equally reliable across countries and can be used for cross-cultural comparisons.

So far, the result of confirmatory factor analysis has proved that the measurement model appeared to be invariant across groups and the constructs were tested to be reliable and valid. This ensures a solid foundation for the analysis of comparing construct means and testing the hypotheses in the structural models.

6.6 Summary

So far, a full measurement model with 10 independent variables and 32 items is established by LIRSEL (Appendix G and Appendix H). The full measurement model A contains 20 items and five moderating variables while the full measurement model B contains 12 items and five mediating variables of the propensity to buy private label. Exploratory factor analysis (EFA) helped with the improvement of the measurement scale. Confirmatory factor analysis confirmed that the construct is reliable and valid as a whole.

In the next chapter, structural equation modeling (SEM) will be used for testing the hypothesized paths of the model. A full model will be presented and the relationship between moderate variables, mediator variables and dependent variable will be tested as well. Also, the measurement scales developed in this chapter exhibits cross-cultural equivalence, and thus is appropriate to apply to the samples of both China and UK. The result can, therefore, be compared cross-nationally.

CHAPTER SEVEN

RESULT AND DISCUSSION

7.0 Introduction

Chapter Four identified the model of consumer behavior to be investigated in the context of cross-national private label purchase. Chapter Six developed a valid and equivalent instrument measuring consumer behavior towards private label in two countries. In addition to the variables under investigation (cultural influence purchase propensity through perceived risks), it has also been found that both perceived quality difference and familiarity can influence purchase propensity directly or indirectly.

This chapter presents the results and discussion using the methodology described in Chapter Five. The chapter begins with structure equation modeling path diagrams, followed by hypotheses testing results by LISREL. At the end of the chapter, a discussion will be given to compare culture values' impact on private label propensity through perceived risks and other factors in UK and China.

7.1 Structural Equation Modeling Estimates

Exploratory Factor Analysis and Confirmatory Factor Analysis in Chapter Six have given a full model with ten variables and thirty-two items. LISREL 8.80 was used to obtain model estimates (Figure 7.1 and Figure 7.2). The factor loadings in both models are over 0.50, the minimum requirement (Campbell and Fiske 1959), which means it is satisfactory for future confirmatory factor analysis.

Figure 7.1 Path Diagram for UK Model in LISREL Notation

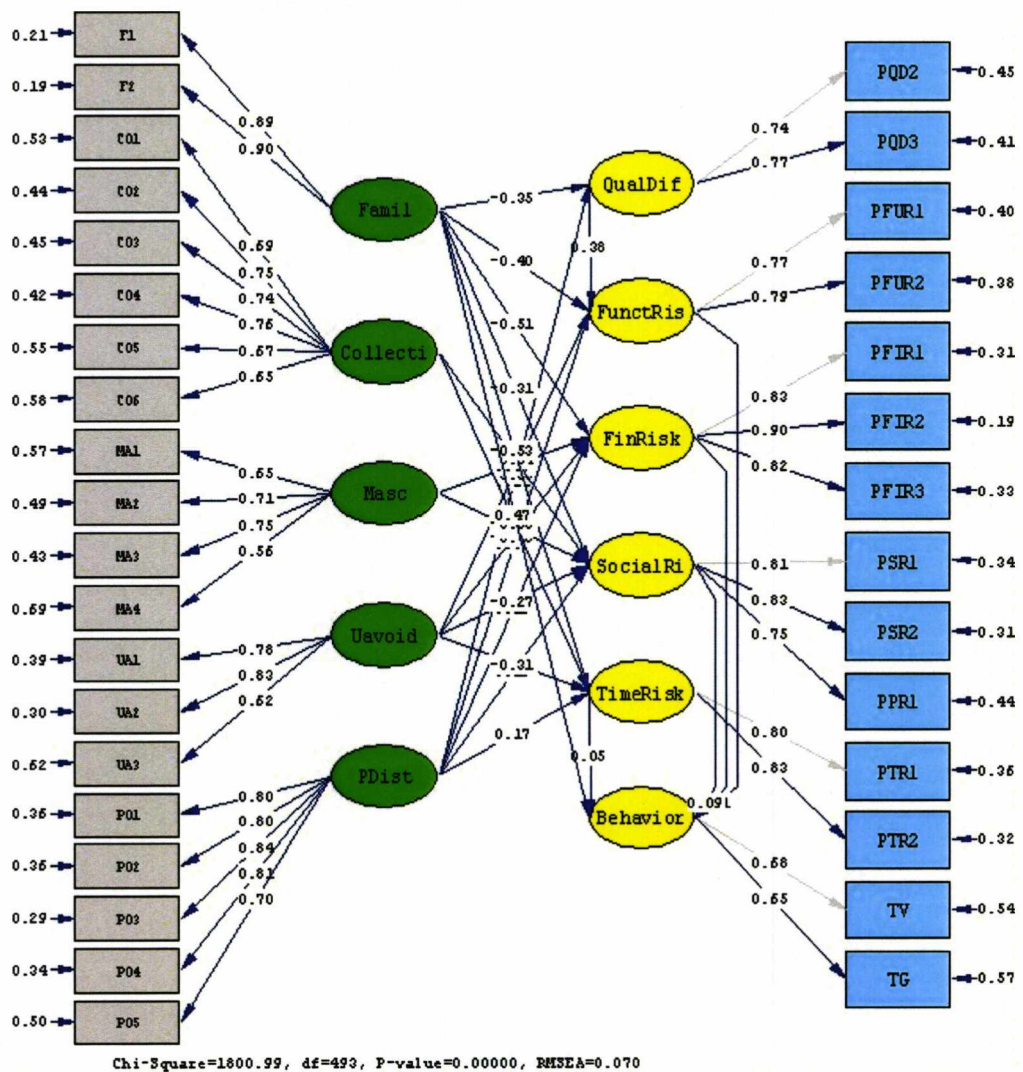
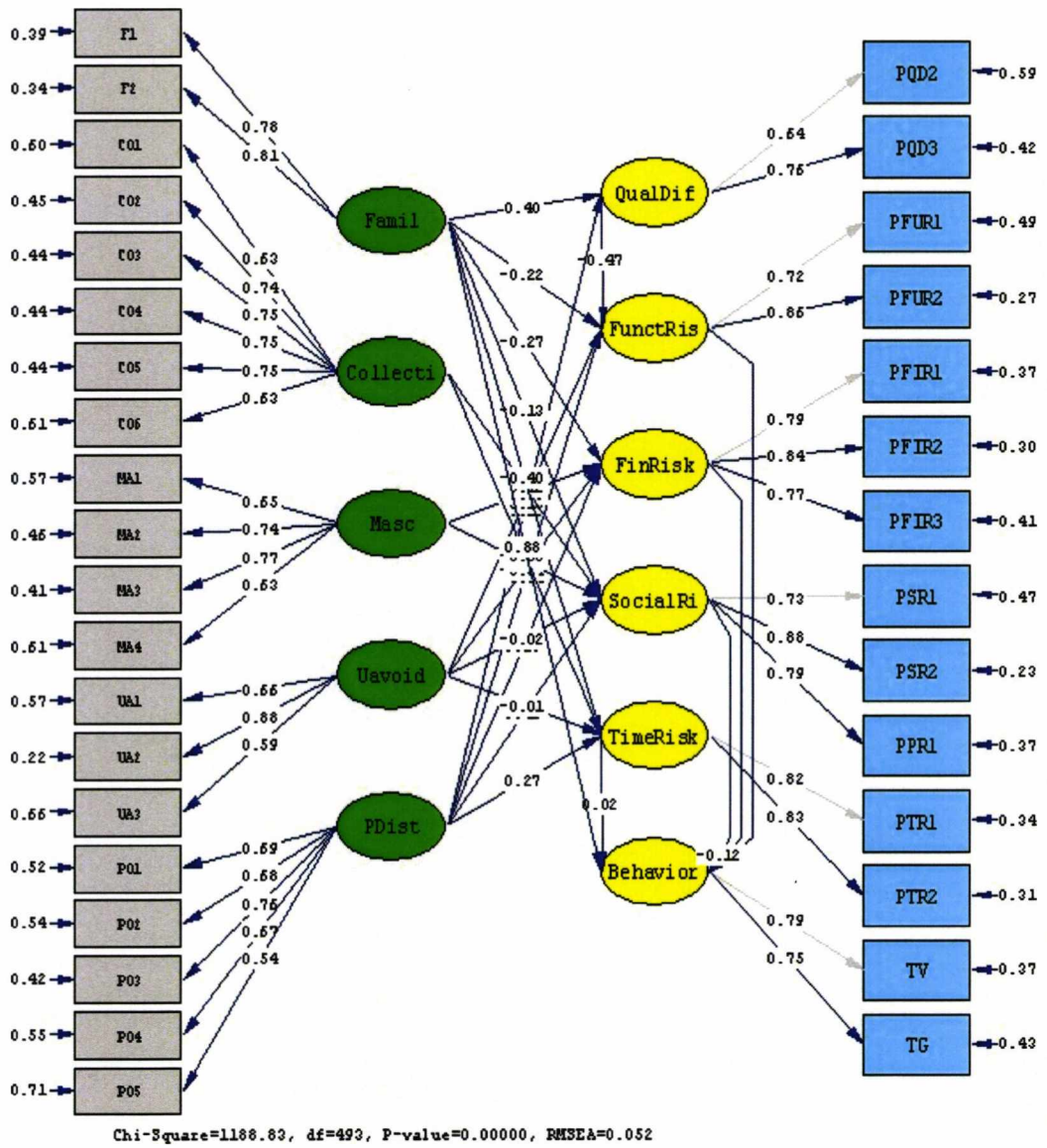


Figure 7.2 Path Diagram for China Model in LISREL Notation



Overall, the models display an acceptable level of goodness-of-fit (Table 7.1). Therefore, the hypotheses can now be tested and the mean and standardized deviation can be compared between two countries.

Table 7.1 The goodness-of-fit indexes of full model

	Chi-square	df	CMIN	CFI	RMSEA	RMR	NNFI	IFI
China	1188.83	493	2.41	0.94	0.052	0.047	0.93	0.94
UK	1800.99	493	3.65	0.93	0.070	0.073	0.92	0.93

7.2 The Result of Testing Hypotheses

This section presents the hypotheses testing result of the study by standardized SEM coefficients for each country. The full relationship diagrams will be displayed at the end of the section. Future discussion of each hypothesis will be presented in the next section.

The hypotheses were tested by LISREL - structural equal modeling tool, the results are summarized in Table 7.2 and Figure 7.4 and Figure 7.5. A closer insight of results comparison between UK and China will be given later in Chapter Eight. The result shows in model UK, 20 out of 24 proposed relationships have been found significant at 0.10 level. In these 20 significant relationships, one hypothesis has been rejected. In model China, 15 out of 24 relationships were found significant; only ten hypotheses have been supported. Only hypothesis 1 has been rejected in both models. Hypotheses 2, 3, 6 and 7 have been fully accepted and hypotheses 4 and 5 have been partly rejected in model UK. In model China, Hypotheses 1, 2 and 7 have been fully rejected; the rest of the hypotheses are partly supported (or rejected).

Table 7.2 Hypotheses Testing Result

Key Hypotheses	Sub-hypotheses	Decision		Standardized Coefficient (t-value)	
		UK	China	UK	China
Hypothesis 1 The level of collectivism affects perceived risks associated with the propensity to purchase private label product.	1.1 The level of collectivism has positive impact on perceived social-psychological risk associated with the propensity to purchase private label product.	Rejected	Rejected	-0.04 (-0.81)	-0.12 (-2.25) ***
	1.2 The level of collectivism has negative impact on perceived time risk associated with the propensity to purchase private label product.	Rejected	Rejected	-0.03 (-0.73)	-0.01 (-0.09)
Hypothesis 2 The level of masculinity affects perceived risks associated with the propensity to purchase private label product.	2.1 The level of masculinity has positive impact on perceived financial risk associated with the propensity to purchase private label product.	Accepted	Rejected	0.07 (1.64) **	-0.03 (-0.61)
	2.2 The level of masculinity has positive impact on perceived social-psychological risk associated with the propensity to purchase private label product.	Accepted	Rejected	0.12 (2.33) ***	0.03 (0.64)
Hypothesis 3 The level of uncertainty avoidance has negative impact on perceived risks associated with the propensity to purchase private label product.	3.1 The level of uncertainty avoidance has negative impact on perceived functional risk associated with the propensity to purchase private label product.	Accepted	Accepted	-0.30 (-6.36) ***	-0.13 (-2.54) ***
	3.2 The level of uncertainty avoidance has negative impact on perceived financial risk associated with the propensity to purchase private label product.	Accepted	Rejected	-0.40 (-9.47) ***	-0.04 (-0.82)
	3.3 The level of uncertainty avoidance has negative impact on perceived social-psychological risk associated with the propensity to purchase private label product.	Accepted	Rejected	-0.27 (-5.68) ***	-0.02 (-0.47)

	3.4 The level of uncertainty avoidance has negative impact on perceived time risk associated with the propensity to purchase private label product.	Accepted	Rejected	-0.31 (-6.55) ***	-0.01 (-0.10)
Hypothesis 4 The level of power distance affects perceived risks/perceived quality difference associated with the propensity to purchase private label product.	4.1 The level of power distance has positive impact on perceived functional risk associated with the propensity to purchase private label product.	Rejected	Rejected	0.03 (0.63)	-0.04 (-0.81)
	4.2 The level of power distance has positive impact on perceived financial risk associated with the propensity to purchase private label product.	Accepted	Accepted	0.16 (3.76) ***	0.25 (4.86) ***
	4.3 The level of power distance has positive impact on perceived social-psychological risk associated with the propensity to purchase private label product.	Accepted	Accepted	0.19 (3.74) ***	0.42 (7.83) ***
	4.4 The level of power distance has positive impact on perceived time risk associated with the propensity to purchase private label product.	Accepted	Accepted	0.17 (3.84) ***	0.27 (5.11) ***
	4.5 The level of power distance has positive impact on perceived quality difference associated with the propensity to purchase private label product.	Accepted	Rejected	0.24 (4.57) ***	-0.16 (-2.76) ***
	Hypothesis 5 The level of perceived risk has negative impact on propensity to purchase private label product.	5.1 The level of perceived functional risk has negative impact on the propensity to purchase private label product.	Accepted	Rejected	-0.18 (-2.42) ***
5.2 The level of perceived financial risk has negative impact on propensity to purchase private label product.		Accepted	Rejected	-0.21 (-2.99) ***	-0.03 (-0.75)
5.3 The level of perceived social-psychological risk has negative impact on propensity to purchase private label product.		Rejected	Accepted	0.09 (1.55) *	-0.12 (-2.65) ***
5.4 The level of perceived time risk has negative impact on propensity to purchase private label product.		Rejected	Rejected	0.05 (0.66)	0.02 (0.47)
Hypothesis 6 The level of familiarity has negative impact on perceived risks/perceived quality difference associated with the propensity to	6.1 The level of familiarity has negative impact on perceived functional associated with the propensity to purchase private label product.	Accepted	Accepted	-0.40 (-7.94) ***	-0.22 (-3.57) ***
	6.2 The level of familiarity has negative impact on perceived financial risk associated with the propensity to purchase private label product.	Accepted	Accepted	-0.51 (-12.08) ***	-0.27 (-4.98) ***

purchase private label product.	6.3 The level of familiarity has negative impact on perceived social-psychological risk associated with the propensity to purchase private label product.	Accepted	Accepted	-0.31 (-6.77) ***	-0.13 (-2.61) ***
	6.4 The level of familiarity has negative impact on perceived time associated with the propensity to purchase private label product.	Accepted	Accepted	-0.53 (-10.88) ***	-0.40 (-6.75) ***
	6.5 The level of familiarity has negative impact on perceived quality difference associated with propensity to purchase private label product.	Accepted	Rejected	-0.35 (-6.45) ***	0.40 (6.06) ***
	6.6 The level of familiarity has positive impact on propensity to purchase private label product.	Accepted	Accepted	0.47 (5.84) ***	0.88 (13.15) ***
Hypothesis 7 The level of perceived quality difference has positive impact on the perceived functional risk associated with the propensity to purchase private label product.		Accepted	Rejected	0.38 (6.41) ***	-0.47 (-6.14) ***

(* t>1.28, significant at 0.10 level; ** t>1.64, significant at 0.05 level; *** t>1.96, significant at 0.01 level)

Although hypothesis 1 has been fully rejected in both models, the result of hypothesis 1.1 shows a significant difference between UK and China in terms of collectivism's impact towards perceived social-psychological risk. It has been rejected in the UK which means the level of collectivism does not affect the perceived social-psychological risk associated with the propensity to purchase private label product. In contrast, in China, the level of collectivism does show a negative impact on perceived social-psychological risk towards private label product purchase which is opposite to the proposed relationship. The more collectivist the consumers are, the less social-psychological risk they would perceive while purchasing private label product. Hypothesis 1.2 has been rejected in both models. The relationship is insignificant. Therefore, we can say the level of collectivism does not affect the perceived time risk associated with the propensity to purchase private label product in neither UK nor China.

For hypothesis 2, the level of masculinity only has significant impact on perceived risks associated with the propensity to purchase private label product in the UK. The result presents that in the UK, the level of masculinity has positive impact on both perceived financial risk and perceived social-psychological risk towards private label product purchase behavior. The more masculine the consumers are, the more financial risk and social-psychological risk they would perceive while purchasing private label product. However, in China, the level of masculinity does not significantly impact on neither of the perceived risks while purchasing private label product.

Hypothesis 3 has been fully supported in the model of UK. The standardized coefficient in Table 7.4 shows that the level of uncertainty avoidance has negative impact on all four types of perceived risks associated with propensity to purchase private label product. The less the British consumers are tolerant to uncertainty, the more risk they will perceive while purchasing private label products. In the model of China, the level of uncertainty avoidance only has

negative impact on perceived functional risk while purchasing private label product. It is not significantly related to the other three types of perceived risks.

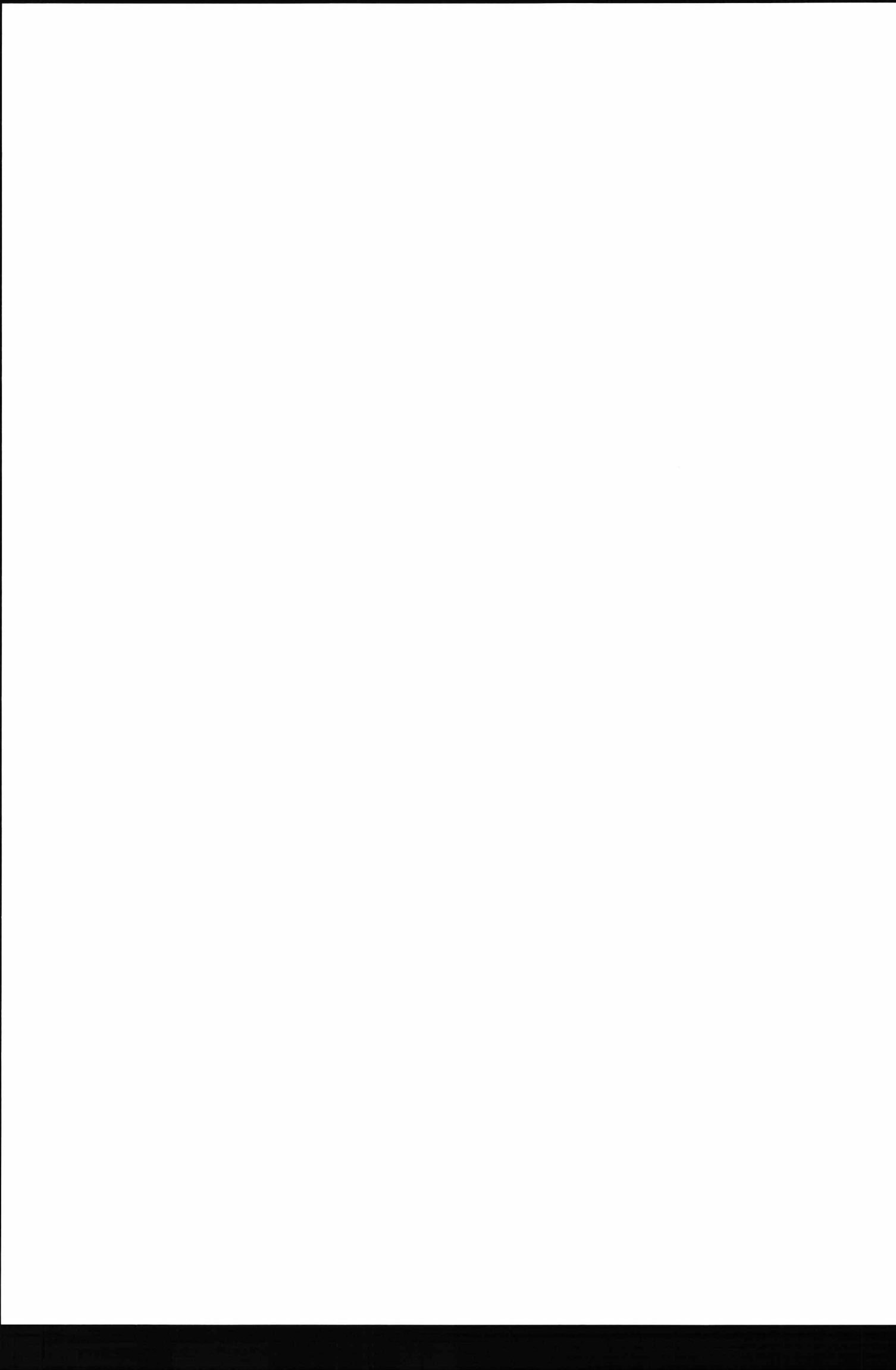
In terms of hypothesis 4, the level of power distance does not affect perceived functional risk towards private label propensity in neither UK nor China. But it does have significant positive impact on the other three types of perceived risks in both countries. It proves that except for perceived functional risk, the more consumers believe people should not be equal in life, the more financial risk, social-psychological risk and time risk the consumer would perceive while purchasing private label product. The level of power distance has also positive impact on perceived quality difference in the UK. It means if the consumers believe inequality of life, they would perceive more differences between national brand and private label product. In contrast, the level of power distance plays a negative role in China. Chinese consumers perceive less quality difference between national product and private label product if they believe people are unequal in life.

The result of hypothesis 5 shows only two types of perceived risks - perceived functional risk and perceived social-psychological risk have impact on private label product propensity in both UK and China. In the UK, if the consumers perceived less functional risk or more perceived social-psychological risk, they are more willing to purchase private label product. However, in China, the situation is opposite. Chinese consumers would be more willing to buy private label product if they perceive more functional risk but less social-psychological risk. In addition, perceived financial risk has a negative impact on private label propensity in UK. When British consumers perceive more financial risk towards private label product, they would be less willing to buy it. But the level of perceived financial risk does not affect the propensity to purchase private label product in China. The sub-hypothesis 5.4 has been fully

rejected here. The level of perceived time risk does not affect the propensity to purchase private label product in neither UK nor China.

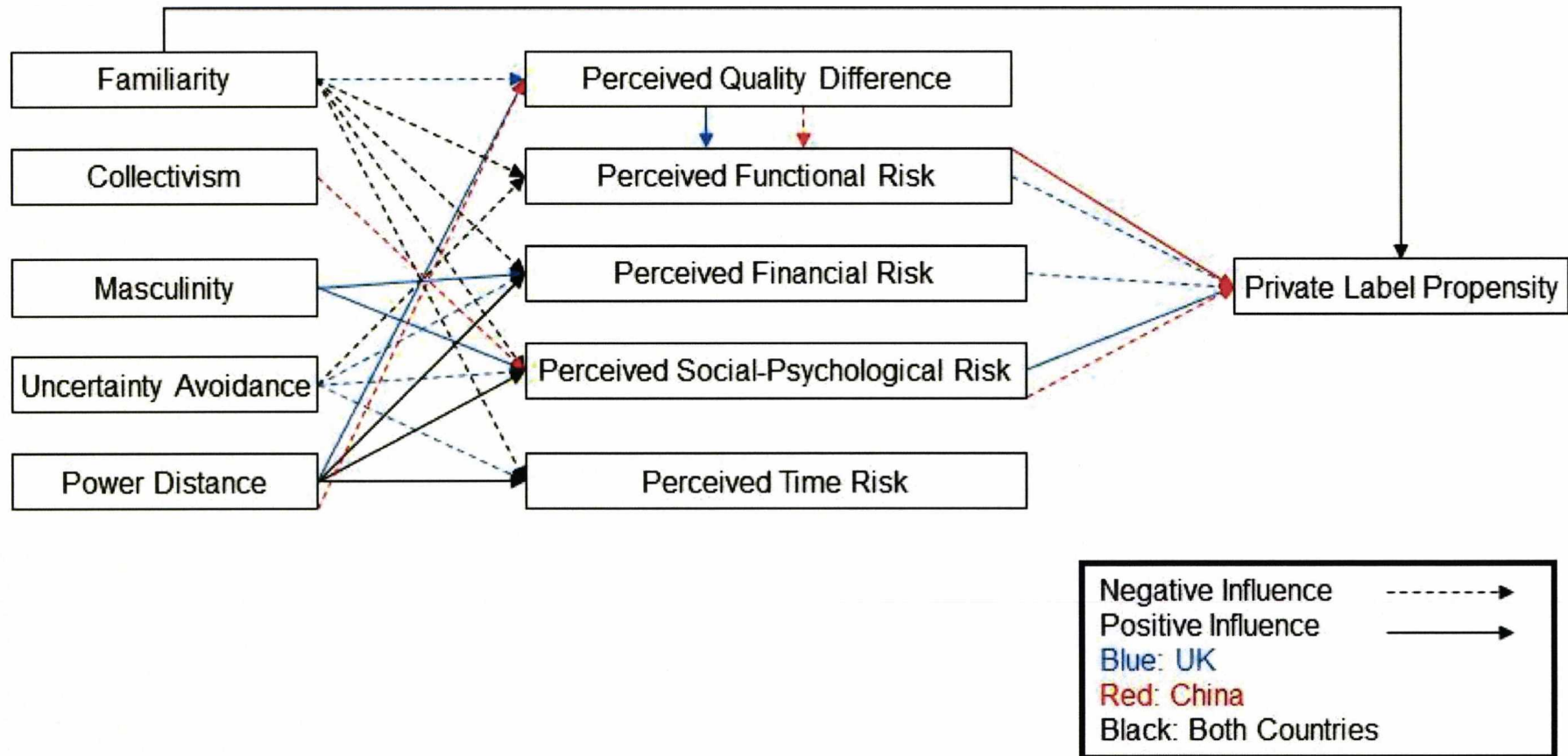
The result of hypothesis 6 is mixed between two countries. First of all, the result shows the level of familiarity has negative impact on all four types of perceived risks associated with the propensity to purchase private label product. When the consumers are more familiar with private label product, they would perceive less risk while purchasing this kind of product. Secondly, in the UK, familiarity plays a negative role to affect perceived quality difference. The more sophisticated is the consumer, the less quality difference he/she will perceive while purchasing private label product. However, in China, it is an opposite case. The less the Chinese consumers know about private label product, the less quality difference between other national product and private label product they would perceive. Finally, the level of familiarity does have positive impact on the propensity to purchase private label product in both countries. While the consumers know more about private label product, they will be more willing to purchase it.

Finally, in the model of UK, the level of perceived quality difference has positive influence on the perceived functional risk associated with the propensity to purchase private label product. Together with hypothesis 5.1, it shows in the UK, when the consumers perceive more quality difference between national product and private label product, they will also perceive more functional risk so that they will be less willing to buy private label product. But in China, the situation seems very interesting: if the consumers perceive more quality difference between national product and private label product, in contrast to British consumers, the Chinese consumers will perceive less functional risk while purchasing private label product so that they will also be less willing to buy private label product.



So far, the result reflects a mixed support for our hypotheses which appears in Figure 3.3. Next section will give a future discussion of the result by comparing the differences across countries.

Figure 7.3 Full Model



7.3 Comparative Analysis

Table 7.3 compares the means of each variable between UK and China. The result shows that respondents in UK are more sophisticated towards private label product. They perceive less quality difference between national product and private label product. They also perceive less risk in general while purchasing private label product in comparison to Chinese respondents, less functional risk in particular. They seem to have a positive view of private label product, although there are still more than third of the respondents do not buy Tesco private label product as often as the others.

Conversely, respondents in China have less knowledge about what is private label product. More than half of the respondents claim that they are not familiar with private label product. The majority of Chinese respondents have very few experience of purchasing private label product in comparison to British respondents. Their perception towards quality difference between national product and private label product appears to be neutral. However, the result does show Chinese respondents perceive more risk than British respondents except social-psychological risk.

In addition, by comparing with British consumers, the Chinese consumers are less prone to purchase private labels. This may be caused by various reasons such as less familiar with private labels and more risk perceived due to the lack of knowledge towards private labels. These results could be explained as UK and China are in the different stage of development in the supermarket sectors – it is highly developed in the UK where has one of the most sophisticated private label retailers in the world, whereas in China ‘supermarket’ only has less than 20 years history, and the development of ‘private label’ is considered as slow and unsuccessful for both international and domestic retailers (see Chapter 2). Cultural values also play a different role on

influencing perceived risks and perceived quality difference between national brands and private labels in different countries. The detailed discussion will be presented in following sections.

Table 7.3 Comparing Means

VARIABLES	Negative (%)		Neutral (%)		Positive (%)		Mean		SD		t-test		
	UK	CN	UK	CN	UK	CN	UK	CN	UK	CN	t-value	df	Sig
Familiarity	23.1	55.2	7.9	11.9	69.0	32.9	3.54	2.81	1.02	0.85	-12.634	519	0.000
Perceived Quality Difference	54.2	20.2	26.4	41.7	19.4	38.1	2.64	3.17	0.77	0.63	11.833	519	0.000
Perceived Functional Risk	53.0	24.2	25.5	25.4	22.5	50.4	2.63	3.25	0.88	0.78	11.858	519	0.000
Perceived Financial Risk	65.5	60.4	14.6	13.3	19.9	26.4	2.43	2.71	0.90	0.70	5.191	519	0.000
Perceived Social-Psychological Risk	73.3	80.6	12.7	10.4	14.0	9.0	2.19	2.22	0.89	0.63	0.873	519	0.192
Perceived Time Risk	61.4	53.3	20.5	19.8	18.1	26.9	2.46	2.75	0.92	0.77	0.580	519	0.000
Purchase Propensity	34.7	64.8	23.3	18.1	42.1	17.1	2.97	2.42	1.08	0.86	-9.416	519	0.000

(Negative = response of 1+2; Neutral = response of 3; and positive = response of 4+5)

The results from this study provide a good first step toward understanding the propensity of private label product in a cross-cultural context. The findings indicate that the propensity of private label product is influenced by perceived risks, as well as by familiarity. Also, culture values play an important role on influencing perceived risks towards private label product propensity.

7.3.1 Collectivism and Its Influence on Perceived Risks

Although majority of the hypotheses have been supported in this research, there are a few unexpected results which have captured our attention. Firstly, despite extensive previous research examining the effects of individualism – collectivism cultural values on risk perception (Weber and Hsee 1998; Javenpaa and Tractinsky 1999; Choi and Geistfeld 2004), it has only negatively influence on perceived social-psychological risk in model China of this study. In contrast to the result of De Mooij (2005) and ACNielsen (2001), the result of this research shows collectivism has a negative impact on the propensity of private label product through perceived social-psychological risk in China. The more collectivist the consumers are, the less social-psychological risk they can perceive towards private label product, the more they are willing to to make the purchase.

Private label product is a relatively new concept for Chinese consumers, for individuals who are more collectivistic than the others, their knowledge towards this type of product is largely dependent on word-of-mouth from their peers (Lam, Lee et al. 2009). Once certain private label product has been proved and recommended by people within their social groups, the new consumers will perceived less social-psychological risk while making the purchase.

7.3.2 Masculinity and Its Influence on Perceived Risks

Interestingly, masculinity only has significant influence on perceived risks in UK model. The reason could be masculinity/femininity can be reflected in sharing of buying decisions between family partners (De Mooij 1998). Ordinary grocery shopping was more shared in feminine cultures which implies in a high masculine society (eg. China), the risks towards private label product purchasing behavior are difficult to be perceived due to the lack of shopping experience from male consumers.

Also, status purchases are more frequent in masculine culture, wealth is the main way to represent one's social status; individuals focus on material success rather than quality of life (Hofstede 2001b). This statement has been explained well by the UK model in this study – the more masculine the shoppers (individual respondents) are, the more social-psychological risk and financial risk they would perceived while purchasing private label product.

7.3.3 Uncertainty Avoidance and Its Influence on Perceived Risks

In the early chapters, we have mentioned that uncertainty avoidance is defined as the extent to which a society or individual feels threatened by ambiguity and tries to avoid it by providing particular rules, regulations and religious (Hofstede, 2001a).

In terms of the relationship between uncertainty avoidance and perceived risks, this research has produced an identical result as previous researchers – there is a negative relationship between uncertainty avoidance and perceived risk and (Mitchell and Vassons 1997; Javenpaa and Tractinsky 1999). Interestingly, this relationship has only been fully reflected in UK model that uncertainty avoidance has negative influence on all four types of perceived risk

towards private label product propensity. However, in China, this negative impact of uncertainty avoidance has only shown with perceived functional risk but not the others. Due to the less experience of Chinese consumers associated with private label product and the immaturity of private label development in Chinese retailing industry, the segmentation of private label product is relatively unitary by comparing with the UK market. Therefore, cultural values such as uncertainty avoidance have less influence on purchase behavior of private label product than some other factors, for example familiarity with private labels.

7.3.4 Power Distance and Its Influence on Perceived Risks

The previous chapters mentioned that in societies with a high degree of power distance, status and authority are very important. While making purchasing decisions, the consumers will depend more on others rather than making independent decision. Adoption of new products/brands is less likely to be fast in these societies. It implies individuals who believe in long power distance in life will perceive more risks by considering opinion of others than those who believe in short power distance. This could also explain why power distance index has positive impact on the three types of perceived risks (financial, social and time) that are all related to social status in both countries.

However, the role that power distance played associated perceived quality difference is opposite to perceived risks. In the UK, the range of private label product is numerous. Consumers can perceive more quality difference if they believe general human inequality in areas such as wealth, power, status etc. Individuals who are considered having high power or high social status would be more likely to purchase high-end private label brands (e.g. Tesco Finest). In contrary, the range of private label product in Chinese supermarket is limited. The level of power distance negatively influenced perceived quality difference between private labels and national brands. It argues that if consumers'

purchase decision is significantly related to the opinion of their social peers (seeking for approval), perceived quality difference is more likely to be undermined as the decision is less quality-orientated.

7.3.5 Perceived Risks and Their Influence on Propensity of Private label Product

According to Dunn et al (1986), consumers perceive risk in purchasing most products. Perceived risk is the expected negative utility associated with the purchase of a particular product or brand. However, in this study, the negative relationship has not always been the case. In the UK, propensity of private label product is only negatively affected by perceived functional and financial risk. But in terms of perceived social-psychological risk, the relationship is positive. In the UK, there are various classes of private label products available to suit the needs of different consumers. The more social-psychological risk the consumers perceive, the more they are willing to purchase private label products which can represent their social status or lifestyles. In contrary, once the consumers perceive the performance of the product could possibly fail their expectation or cause potential monetary loss, they will be less willing to purchase private label product.

In China, the effect of perceived risks associated with the propensity of private label product is very different from that of UK. Generally speaking, Chinese consumers perceived more risks than British consumers, functional risk in particular. However, in contrast to the situation in UK, perceived functional risk encourages the purchase of private label product in China. On the one hand, the previous chapters have demonstrated that development of private label product in China is still behind UK or the other European and Northern American countries which means the majority of private label products in Chinese supermarkets are still low quality and low price products. Therefore, more functional risk is perceived during purchase. On the other hand, 'private label' is

still a new phenomenon in Chinese supermarket (eg. Tesco in China). Although the Chinese consumers may perceive more functional risks while purchasing private label products, the other factors may still encourage purchasing activities such as promotion and price. More perceived functional risk could also be caused by large price difference between private label product and other national brands. Therefore, for price sensitive Chinese supermarket shoppers, they would still be more willing to buy low price private label product even if they perceive more functional risk.

Furthermore, in China, the propensity of private label product is negatively influenced by perceived social-psychological risk. For Chinese shoppers who concerned more about their own social status or self-esteem, buying private label product is not consistent with their self-image which may also cause social or psychological disappointment at themselves. This result rejects previous research's finding – perceived social risk has relatively minor importance in the purchase of supermarket products (Dunn, Murphy et al. 1986).

In addition, although the importance of time perception associated with consumer behavior has been emphasized by previous researchers (Berry 1979; Graham 1981; Cotte, Ratneshwar et al. 2004), there is no significant relationship between perceived time risk and propensity of purchasing private label product in neither UK nor China. Therefore, we can conclude that consumers do not view purchasing private label product as a time saving choice nor a time wasting decision.

7.3.6 Familiarity and Its Influence on, Perceived Quality Difference, Perceived Risks and Private Label Propensity.

Most of the hypotheses associated with familiarity in this research have been supported by the result, only one hypothesis has been rejected in China

model – it shows that familiarity positively affects perceived quality difference while purchasing private label products. As we have mentioned above, although private label has almost twenty years history in China, it is still viewed as low price and low quality product by comparing with the other national brands. Indeed, the Chinese retailers' lack of experience to develop and promote their own brands causes the quality difference between private label brands and popular national brands to become more obvious. Therefore, for those consumers who consider themselves familiar with private label brand are those who are also aware this situation. In the UK, it is opposite – private label products are usually well designed, categorized and promoted on the basis of different consumers' needs. The improvement in private label products has made them an acceptable purchase alternative for large groups of consumers. The majority of consumers believe that supermarket own brands are a good alternative to other brand in terms of quality (Kumar and Steenkamp 2007).

Moreover, a negative and direct relationship between familiarity and perceived risks; and a negative and indirect relationship between familiarity and perceived risks through perceived quality difference have confirmed the result from previous research (Richardson, Jain et al. 1996; Mieres, Martin et al. 2005). In both countries, if the consumers have more knowledge about what is private label product and how they perform, they will perceive less risk while making the purchase decision, they will also be more willing to purchase private label product.

In addition, as we expected, Chinese consumers are less familiar with private label product than British consumer. Therefore, in China, whether the consumers are willing to purchase private label product largely depends on how much they know about it. The positive direct effect of familiarity towards propensity of private label product is more significant in China than in the UK.

7.3.7 Perceived Quality Difference and Its Influence on Perceived Functional Risk

Interestingly, both Mieres et al (2005) and Richardson et al (1996) conclude that the relationship between perceived quality difference and perceived risk towards private label product is positive. It is consistent with the result produced by the UK model in this research. Once the British consumers perceive a large quality difference between private label brands and national brands, they will become more concerned about whether private label product will perform the way they expected. However, in China, the situation is opposite. For Chinese consumers, it seems more acceptable that if private label product does not perform the way it should have done.

7.3.8 Other additional Findings.

Apart from the results mentioned above, there are also some additional findings have been uncovered from the study. Firstly, exploratory factor analysis in Chapter Six suggests the items of perceived social risk and perceived psychological risk should be merged as one variable. The correlation coefficient between social risk and psychological risks in both countries are higher than 0.650. The factors of these two variables are loading in the same direction as well. All these identified a strong positive relationship between these two variables. Also, the definition of psychological risk and social risk is similar. Social risk reflects the disappointment and embarrassment before family or friends as a result of the poor choice; while psychological risk is the harm to the consumer ego that a poor choice produces (Jacoby and Kaplan 1972). Therefore, after deleting the low loading item – perceived psychological risk 2¹⁰; perceived social risk 1&2 and perceived psychological risk 1 are merged as one

¹⁰ Perceived Psychological Risk 2 (PPR2) - I sometimes question whether buying Tesco own label products is the right thing to do.

new variable – perceived social-psychological risk.

In addition, in terms of culture values, the result shows an objection towards Hofstede's results. First of all, both UK and China appear to have a neutral level of collectivism. However, in Hofstede's study, UK was defined as an extremely individualistic country while China was highly collectivistic. Secondly, In Hofstede's study, British appears to be more masculine than Chinese. But this study shows an opposite result – majority of Chinese respondents believe men play a more assertive role in the society than women do, while majority of British respondents believe men and women are equal in terms of work or social roles. Thirdly, the majority respondents from both countries disagree with unequally distributed power in the society. However, only British seem to disapprove with it according to Hofstede's result. The only similar result produced by this study by comparing with Hofstede's study is the level of uncertainty avoidance in two countries. Both British respondents and Chinese show less tolerance for uncertainty and ambiguity which was close to Hofstede's result, but slightly higher. These results may be caused by the changing of the society since Hofstede's original study in 1989. Therefore, future studies associated with the changes of culture across countries may be needed.

7.4 Summary

This chapter has presented the results produced using the measurement scale developed in Chapter Six. Two revised models have been compared and analyzed. Seven key hypotheses have either been fully rejected or partly rejected. It shows that the effect of culture on private label product propensity through perceived risks and other factors vary across countries. Some results are unexpected. Hofstede's (1989 and 2001a) results of UK and China's cultural characteristics have also been challenged.

The discussion of this study compared the results with previous studies in order to test the theoretical framework. Consequently, the next chapter will consider the application of these findings for private label brand strategy. Also, the limitation of this research will be discussed in order to provide guidelines for future research.

CHAPTER EIGHT

CONCLUSIONS

8.0 Introduction

This thesis has investigated the relationship between cultural values and perceived risk in the context of private label purchasing behavior in China and the UK. By conducting a consumer survey in both countries, cross-cultural comparisons have been made. Previous chapters have presented and discussed the detailed findings of the research. This chapter will summarize the key contributions, posits some implications of this study, clarifies the limitations and concludes by outlining potential further research.

8.1 Summary of Contributions

This research has developed and tested a model that integrates a series of variables relating to private label purchasing behavior. It explains the difference in the risk consumers perceive between private label and national brands from a cross-cultural perspective.

8.1.1 Filling a gap in the academic literature

Chapter Two described the role of private label in international retailing and the development of retailers' private label strategies in recent years in different parts of the world. The literature relating to private label purchasing behavior has been reviewed in Chapter Three from three perspectives – retailers, manufacturers and consumers. In particular, the literature review from a consumer's perspective studied the variables which may influence the propensity to purchase private label products.

The review shows that most private label consumer behavior studies have been conducted in single countries. In these studies, the propensity to purchase private label is generally compared with national brands across categories (Hansen, Singh et al. 2006; Mieres, Martin et al. 2006; Gamliel and Herstein

2007). Only a few studies have looked at private label consumer behavior across cultures (Shannon and Mandhachitara 2005; Steenkamp and Heerde et al 2007). The behavior of Chinese consumers with respect to private label products has been studied (Jiang and Guo 2003; Fei 2006; Xu and Qingyun 2007; Yang 2008), but never in comparison with other countries.

Therefore, this cross-cultural study fills a gap by exploring the relationship between cultural values and perceived risk (previously unexplored). This study is also in a context that is highly relevant (and also unexplored) given the ongoing internationalization of retailing. It covers the potential development of the market for private label products in the world's largest country, but one that is culturally distinct from those in which private label strategies have been developed and proven to be successful, of which the United Kingdom is arguably the best example.

8.1.2 Developing a Valid Measurement Scale for Comparative Studies

Increasing cultural diversity and the explosive growth of world trade drive researchers' interests in exploring and comparing behavior and cognitions in diverse national environments. However, research in this area is fraught with conceptual and methodological pitfalls (Douglas and Craig 1997).

Chapter Five of this thesis has given the details of how to establish a valid research methodology for comparative studies. It has always been a challenge to establish the comparability of multi-country (let alone multi-cultural) data. The etic approach has been adopted and a comparable framework has been established for the purpose of testing specific research hypotheses as well as the theoretical framework derived from the literature. This process is something that other researchers working in cross-cultural environments can benefit from.

8.1.3 Summary of Key Findings

Both similarities and differences in the propensity of (Tesco) supermarket shoppers in the two countries to purchase private label products have been uncovered by the statistical analysis of the survey data. Seven key hypotheses have been tested and the result shows that for the UK model 20 out of 24 proposed relationships have been found significant and one hypothesis has been rejected. In the Chinese model 15 out of 24 relationships were found significant and 14 hypotheses were rejected (Table 8.1). In addition, it was established that perceived functional risk is the strongest predictor of the propensity to purchase private label products.

Table 8 1 Testing Hypotheses

Key Hypothesis	Decision	State of Nature
1 The level of collectivism affects perceived risks associated with the propensity to purchase private label.	Partially Supported	Collectivism only has negative impact on perceived social-psychological risk associated with the propensity to purchase private label in China.
2 The level of masculinity affects perceived risks associated with the propensity to purchase private label.	Partially Supported	Masculinity has positive impact on perceived financial risk and social psychological risk associated with the propensity to purchase private label in the UK. Its impact in China is not significant.
3 The level of uncertainty avoidance has negative impact on perceived risks associated with the propensity to purchase private label.	Partially Supported	Uncertainty avoidance has negative impact on all four types of perceived risks in the UK. But only negative impact on perceived financial risk has been discovered in China, the other perceived risks' influence is insignificant.
4 The level of power distance affects perceived risks/perceived quality difference associated with the propensity to purchase private label.	Partially Supported	Power distance's impact on perceived functional risk associated with the propensity to private label is insignificant. But it has positive impact on perceived financial, social-psychological and time risk in both countries. In addition, its impact on perceived quality difference is inconsistent across countries. The influence is positive in the UK, but negative in China.
5 The level of perceived	Partially	Perceived risks' influence on the propensity

risk has negative impact on propensity to purchase private label.	Supported	to purchase private label is inconsistent cross countries. Perceived functional risk play a negative role in the UK, but positive role in China. Perceived financial risk also shows a negative influence in the UK, but the influence in China is insignificant. In terms of perceived social-psychological risk, there is a minor positive influence in the UK, but a significant negative influence in China. The influence of perceived time risk is insignificant in both countries.
6 The level of familiarity has negative impact on perceived risks/perceived quality difference associated with the propensity to purchase private label.	Partially Supported	The impact of familiarity on perceived risks is consistent. A significant negative influence on all four types of perceived risks in both countries was uncovered. It has also positive impact on the propensity to purchase private labels in both UK and China. Familiarity also has a negative impact on perceived quality difference associated with propensity to purchase private labels in the UK. But this impact tends to be positive in China.
7 The level of perceived quality difference has positive impact on the perceived functional risk associated with the propensity to purchase private label.	Partially Supported	The positive impact of perceived quality different on perceived functional risk associated with the propensity to purchase private label has been confirmed. In contrast, this impact is significant but tends to be negative in China.

Although the structure of the constructs measured was identified as equivalent (Chapter Five and Six), enabling the comparative analysis, the roles of some of the variables in the model differed by country. In comparison with Chinese shoppers, British shoppers are more familiar with private labels. They predict less functional, financial, social-psychological risk and quality difference in comparison with national brands when purchasing private label products than is the case with Chinese shoppers, who remain largely unfamiliar with the private label concept. Therefore, their propensity to purchase private label is greater than that in China. The British shoppers perceive more time risk than Chinese consumers when purchasing private label products, but the impact of time on the propensity of purchasing private label is insignificant.

Cultural values do affect how individuals perceive the risk associated with shopping behaviors, but not all of them. The role of perceived risk dimensions in terms of the propensity to private labels differs by country. The impact of familiarity's on perceived risk is consistent, but not when it is treated as a predictor of perceived quality difference between private label and national brands.

8.2 Implications and Recommendation

The results illustrate that despite retailers efforts to change the way private label products are perceived, they are still seen as inferior alternatives to national brands (Mieres, Martin et al. 2006). However, if efforts are made to overcome the perceived risk associated with private label in those markets in which they remain untested and unproven, their positioning could change and the opportunity exists for private labels to compete with national brands on attributes other than price, as they do in the UK.

Because familiarity plays a key role in the study, a suitable point of departure for retailers is to enhance their advertising investment to promote their own brands; in the new markets in particular. For example, the findings of China from the study would imply that the retailers should develop their brand image rather than focusing on low price strategy. Advertising effectiveness is strongly linked to culture, so the segmentation of marketing communications to target specific shopper segments with specific cultural orientations would be an innovative departure from the price focus that has supported the introduction of private label products in every country to date. A greater understanding of the benefits (other than price) of private label products could contribute to a reduction in consumer's perceived risk so that the consumers can evaluate the performance of private label not only based on the external aspects of the brand, but also their intrinsic attributes.

Since price and quality are not the only two factors which influence the propensity to buy private labels, the retailers should consider reinforcing their brand image and corporate identity which may increase the familiarity and prevent them from being considered second rate alternatives.

Although private label has been viewed as a western and individualistic phenomenon (De Mooij 2004), the success of private label in South Korean (Chapter Two) has given the retailers some faith while expanding their private label strategy to eastern or Asian markets. Therefore, establishing promotion or advertising strategy on the basis of consumers' cultural value can be an efficient way to develop the market for private label products in the future.

8.3 Limitations

There are a number of limitations this study which should be considered when interpreting the results and highlighting potential areas for future research.

First, there are four constructs measurement comprises just two items (familiarity, perceived quality difference, perceived functional risk and perceived time risk), after the third items were eliminated after the pilot study, due to their negative impact on construct reliability. Clearly, further research is required to improve the measurement of these constructs in future cross-cultural studies of this kind.

Second, since quota sampling technique were been used in this study by selecting supermarket shoppers outside the store, it was still not possible to obtain a sample that is representative of the general populations in the UK and China. In the absence of data describing the characteristics of shoppers in a particular store in a particular region, the addition of some demographic variables (e.g. income and education) to enable extrapolation beyond the narrow

confines of the sample areas would add weight to the generalisability of findings from the highly context-specific samples that are necessary in cross-cultural research of this kind.

Previous studies of private label consumer behavior were conducted across product categories. In this study, because UK and China have different product classification criteria, categories were not considered as a moderating factor in the framework. However, the possibility remains that perceived risk is (highly) dependent on product category. Thus, future studies of this kind might benefit from the identification of distinct product categories and testing the moderating factor that this might have on the propensity of shoppers to purchase/pay more/less for private label products across categories.

8.4 Potential Areas for Future Research

This study focuses on the interaction between culture and perceived risk on the propensity to purchase private label products. The result could be analysed and discussed in more details such as comparing means for each construct items which could show a greater insights into attitude. Also, future research could re-visit the impact of (and interactions between) other demographic characteristics (e.g. lifestage and lifestyle) that could improve the predictive power of the model. In the UK, the establishment of Tesco's loyalty card system makes it possible to track actual behavior rather than claimed behavior, across a range of shopper segments. In time, it is likely that such data will become available in China, at which point not only will the measurement of behavior improve substantially (as the researcher will be able to view exactly what shoppers have purchased rather than what they they claim to have purchased) rather than relying on claimed behavior. This will enable greater concentration on the behavioral drivers rather than the behavior itself.

Given the transitional status of the Chinese economy – its society and cultural values also – and the rapid increase in the share of supermarkets from a very low base, it would also be interesting (and arguably more valuable) to undertake a longitudinal study to trace the changing attitudes, perceptions and behavior, in different cultural and socio-economic contexts, over time.

This study has demonstrated the feasibility of comparing shopper behavior in two very distinct (cultural) environments. Thus, there is no reason why future studies could not build on this work and apply the model (conceptual and methodological) in other parts of the world.

8.5 Concluding Remarks

This concluding chapter has summarized the key findings and contributions arising from the research, along with implications for practitioners and research, the limitations of the study and potential areas for future research.

This research has made a significant contribution to the academic literature relating to private label products and marketing strategies, consumer behavior and cross-cultural analysis. It is the first study to focus specifically on the propensity to purchase private label products from a cross-cultural perspective. As the development (conceptually, geographically and commercially) of private label products and strategies continues in an increasingly international retailing environment, a better understanding of consumer attitudes, perceptions and behavior, across national, socio-economic and cultural boundaries will become all the more important. Hopefully, this study will make a noteworthy contribution to this process.

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APPENDICE

Appendix A. Original Measurement Scales from the Literatures

Familiarity	<ol style="list-style-type: none"> 1. I have plenty of experience in using store brands 2. I know the available store brands well 3. I am quite familiar with store brands 4. I have often bought store brands <p>(Items 3 and 4 were replaced by AC Nieslen Scale – ‘Tesco own label products are nothing new to me’ before piloting study.</p>	Mieres et al (2005) AC Nieslen (2005)
Cultural Values	<p>Collectivism</p> <p>CO1. Individuals should sacrifice self-interest for the group to which they belong.</p> <p>CO2. Individuals should stick with the group even through difficulties.</p> <p>CO3. Group welfare is more important than individual rewards.</p> <p>CO4. Group success is more important than individual success.</p> <p>CO5. Individuals should pursue their goals after considering the welfare of the group.</p> <p>CO6. Group loyalty should be encouraged even if individual goals suffer.</p> <p>Masculinity</p> <p>MA1. It is more important for men to have a professional career than it is for women.</p> <p>MA2. Men usually solve problems with logical analysis; women usually solve problems with intuition.</p> <p>MA3. Solving difficult problems usually requires an active, forcible approach, which is typical of men.</p> <p>MA4. There are some jobs a man can always do better than a woman.</p> <p>Uncertainty Avoidance</p> <p>UN1. It is important to have instructions spelled out in detail so that I always know what I'm expected to do.</p> <p>UN2. It is important to closely follow instructions and procedures.</p> <p>UN3. Rules/regulations are important because they inform me of what is expected of me.</p> <p>UN4. Standardized work procedures are helpful.</p> <p>UN5. Instructions for operations are important.</p> <p>Power Distance</p> <p>PO1. People in higher positions should make most decisions without consulting people in lower positions.</p> <p>PO2. People in higher positions should not ask the opinions of people in lower positions too frequently.</p> <p>PO3. People in higher positions should avoid social interaction with people in lower positions.</p> <p>PO4. People in higher positions should not delegate important tasks to</p>	Yoo and Donthu (2005)

	<p>people in lower positions. PO5. People in lower positions should not disagree with decisions made by people in higher positions.</p> <p>Long-Term Orientation</p> <p>LT1. Careful management of money (thrift). LT2. Going on resolutely in spite of opposition (persistence). LT3. Personal steadiness and stability. LT4. Long-term planning. LT5. Giving up today's fun for success in the future. LT6. Working hard for success in the future.</p>	
Perceived Quality Difference	<ol style="list-style-type: none"> 1. Store brand grocery items are of excellent quality overall. 2. There is a great difference in overall quality between nationally advertised and store brand grocery items. 3. There is a great difference in reliability of ingredients between nationally advertised and store brand grocery items. 4. There is a great difference in the nutritional value of ingredients between nationally advertised and store brand grocery items. 	Dick et al (1995)
Perceived Risks	<p>Functional Risk</p> <ol style="list-style-type: none"> 1. You are suspicious of the quality. 2. You are afraid that its resistance level may not be sufficient (kitchen roll)/You are afraid that it may not leave your hair in good condition (shampoo). 3. You are afraid that its absorption level may not be sufficient (kitchen roll)/You are suspicious of the ingredients used in its manufacturing (shampoo). 4. You think that it is not going to give you a good result. <p>Financial Risk</p> <ol style="list-style-type: none"> 1. You think that buying it is a waste of money. 2. You are worried that its not worth the money spent. 3. You think that it is not a wise way of spending money. <p>Social Risk</p> <ol style="list-style-type: none"> 1. You are worried that, if you buy it, the esteem your family or friends have for you may drop. 2. You are afraid that, if you buy it, it may negatively affect what others think of you. 3. You think that, if you buy it, others will not see you the way you want them to. 4. You are afraid that, if you buy it, others may look down on you. <p>(Items 1 and 3 were replace by AC Nielsen Scale – 'Tesco own label products are designed for people who are on tight budgets and cannot afford the best' before piloting study.</p> <p>Psychological Risk</p> <ol style="list-style-type: none"> 1. Buying it will make you feel uncomfortable with yourself. 2. Buying it makes you feel unhappy or frustrated. 	Mieres et al (2005) AC Nielsen (2005)

	<p>3. It does not fit in well with the concept you have of yourself.</p> <p>4. It makes you doubt whether you were right in buying it.</p> <p>(Items 1 and 2 were replaced by AC Nislen Scale – 'most Tesco own products have very cheap looking packaging, which puts me off buying them' before piloting study.</p> <p>Time Risk</p> <p>1. You are afraid that it may be a waste of time due to its bad result.</p> <p>2. You are afraid that buying it will be a waste of time if you have to change it for another brand.</p> <p>3. You are afraid that you may waste time with possible complaints and refunds as a consequence of buying the product.</p> <p>4. You consider that buying the product may be a nuisance due to wasted time as a consequence of buying something that may be worthless.</p>	
	<p>They're really meant for people who are on tight budgets and can't afford the best brands (Perceived Social Risk).</p> <p>Generally, supermarket brands seem to have very cheap looking packaging which puts me off buying them (Perceived Psychological Risk).</p>	ACNielsen (2005a)
Private Label Brand Propensity	Whether they regularly bought each product, and if so the frequency with which the product was a store brand; never ("1"), rarely ("2"), sometimes ("3"), often ("4"), or always ("5")	Richardson et al (1996)

Appendix B. UK Survey



The Survey of Consumer Attitude towards Supermarket Own Label Brands

This questionnaire is a part of research project being conducted by Kent Business School, University of Kent, looking at consumer attitudes towards supermarket own label products.

The questionnaire contains 45 questions and should take no more than 10 minutes to complete. All respondents who complete the questionnaire by 30th July 2009 will be entered into a prize draw, the winner of which will receive a 50 pound gift voucher.

All information provided will be treated in strict confidence and answers will only be reported in aggregate.

Your co-operation is very much appreciated.

If you have any questions regarding the survey, please contact Liuchen Guo, Kent Business School, University of Kent (lg217@kent.ac.uk)

Questionnaire Part A – Supermarket Shopping

1. How often do you purchase the following kinds of supermarket own label products when shopping at Tesco? (1 = Never, 5 = Always)

	1	2	3	4	5
Tesco (regular)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tesco Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate the extent to which you agree or disagree with the following statements:

2. The overall quality of Tesco own label products is usually as good as the branded alternative

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. The nutritional quality of some Tesco own label products is inferior to that of the branded alternatives

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Some Tesco own label products are not as safe as the branded alternatives

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. I am well aware of the range of Tesco own label products available

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. I have plenty of experience in using Tesco own label products

strongly disagree disagree neither agree nor disagree agree strongly agree

 7. Sometime I am suspicious about the quality of Tesco own label products

strongly disagree disagree neither agree nor disagree agree strongly agree

 8. I am often disappointed with the quality of Tesco own label products

strongly disagree disagree neither agree nor disagree agree strongly agree

 9. I sometimes feel that buying Tesco own label products is a waste of money

strongly disagree disagree neither agree nor disagree agree strongly agree

 10. I sometimes feel that Tesco own label products are not worth the money I spend on them

strongly disagree disagree neither agree nor disagree agree strongly agree

 11. Buying Tesco own label products is not always a good way to spend my money

strongly disagree disagree neither agree nor disagree agree strongly agree

 12. I am sometimes worried that if I buy Tesco own label products other people may look down on me

strongly disagree disagree neither agree nor disagree agree strongly agree

13. I am sometimes worried that if others know that I buy Tesco own label products brands it may negatively affect what they think of me

strongly disagree disagree neither agree nor disagree agree strongly agree

14. Tesco own label products do not fit very well with the image I have of myself

strongly disagree disagree neither agree nor disagree agree strongly agree

15. I sometimes question whether buying Tesco own label products is the right thing to do

strongly disagree disagree neither agree nor disagree agree strongly agree

16. I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up disappointed and have to look for a replacement

strongly disagree disagree neither agree nor disagree agree strongly agree

17. I am sometimes worried that buying Tesco own label products will result in a waste of my time if I end up complaining and seeking a refund

strongly disagree disagree neither agree nor disagree agree strongly agree

Questionnaire Part B – You and Your Values

Please indicate the extent to which you agree or disagree with the following statements:

18. Individuals should sacrifice self-interest for the benefit of society as a whole

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. Individuals should support social causes even when it is difficult

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. Individual success is more rewarding than being part of a winning team

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. The welfare of society as a whole is more important than individual rewards

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. Individuals should pursue their goals only after considering the welfare of others

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Group loyalty should be encouraged even if individual goals suffer

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. It is more important for men to have a professional career than it is for women

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. Men usually solve problems with logical analysis whereas women usually solve problems with intuition

strongly disagree disagree neither agree nor disagree agree strongly agree

26. Solving difficult problems usually requires an active, forcible approach, which is typical of men

strongly disagree disagree neither agree nor disagree agree strongly agree

27. There are some jobs a man can always do better than a woman

strongly disagree disagree neither agree nor disagree agree strongly agree

28. It is always important to closely follow instructions and procedures when given them.

strongly disagree disagree neither agree nor disagree agree strongly agree

29. Rules/regulations are important because they inform people of what is expected of them

strongly disagree disagree neither agree nor disagree agree strongly agree

30. Standardized work procedures are general helpful

strongly disagree disagree neither agree nor disagree agree strongly agree

31. I usually follow instructions for operating things

strongly disagree disagree neither agree nor disagree agree strongly agree

32. People in managerial positions should take most decisions without consulting their subordinates

strongly disagree disagree neither agree nor disagree agree strongly agree

33. People in managerial positions should not ask the opinions of their subordinates too frequently

strongly disagree disagree neither agree nor disagree agree strongly agree

34. People in managerial positions should avoid social interaction with their subordinates

strongly disagree disagree neither agree nor disagree agree strongly agree

35. People in managerial positions should not delegate important tasks to their subordinates

strongly disagree disagree neither agree nor disagree agree strongly agree

36. Operational staff should not disagree with decisions made by their managers

strongly disagree disagree neither agree nor disagree agree strongly agree

37. No one can predict the future so there is no point in saving up for it

strongly disagree disagree neither agree nor disagree agree strongly agree

38. Given the choice I would prefer more variety to more stability in my life

strongly disagree disagree neither agree nor disagree agree strongly agree

39. People should make provisions for the future

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

40. Life is for living not for worrying too much about the future

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

41. I believe people should work hard in order to achieve success in the future

strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Questionnaire Part C – You and Your Household**42. Which of the following best describes your household?**

- Young Adults – age 20-39yrs with no children at home
- Older Adults – age 40-59yrs with no children living at home permanently
- Young Family – all children under 10yrs
- Older Family – one or more children over 10yrs
- Pensioners – adults over 60 with no children living at home permanently

43. What is your gender?

- Male
- Female

44. What was your last place of education?

- Secondary school
- Further Education College
- University (Undergraduate)
- University (Postgraduate)

45. What is your approximate total annual household income?

- Less than £20K
- £21-30K
- £31-40K
- £41-50K
- £51- 70K
- More than £70K

Thank you for completing this questionnaire

Appendix C. China Survey



Kent
Business School

超市自有品牌消费情况调查

消费者，您好！

该调查为英国肯特大学及东北财经大学关于消费者对超市自有品牌消费态度的研究课题的一部分。为了保证研究的准确性，请您仔细回答所有问题，如果有不懂的问题，请及时询问我们调查员。

问卷共包括 45 个问题，大概需要十分钟来完成。我们将对您所提供的信息绝对保密，所有答案都只将被集中使用。

非常感谢您的合作。

如果您对该调查有任何问题，请与肯特大学肯特商学院博士研究生郭柳晨联系 (lg217@kent.ac.uk)

1. 请问您是否经常购买以下两种乐购自有品牌?

A. 乐购超值系列(Tesco Value) – 该种商品包装简单, 全年超低价。



我 从不 偶尔 有时 经常 总是 购买乐购超值系列的商
品。

B. 乐购普通系列(Tesco) – 该种商品质量比较好, 价格高于乐购超值系列但略低于其它
主流品牌。



我 从不 偶尔 有时 经常 总是 购买乐购普通系列的商
品。

问卷第一部分 - 关于消费态度

请问您在多大程度上同意或者不同意以下观点？

2. 总的来说，乐购自有品牌商品的质量和其它品牌一样好。

强烈反对 反对 既不同意也不反对 同意 非常同意

3. 一些乐购自有品牌商品的营养质量不如其它品牌。

强烈反对 反对 既不同意也不反对 同意 非常同意

4. 一些乐购自有品牌的商品使用起来不如其它品牌安全。

强烈反对 反对 既不同意也不反对 同意 非常同意

5. 您清楚的知道可以买到哪些乐购自有品牌的商品。

强烈反对 反对 既不同意也不反对 同意 非常同意

6. 您只买过为数不多的几类乐购自有品牌的商品。

强烈反对 反对 既不同意也不反对 同意 非常同意

7. 您有时会对乐购自有品牌商品的质量有一定的怀疑。

强烈反对 反对 既不同意也不反对 同意 非常同意

8. 您有时会担心对乐购自有品牌商品的质量可能会让您失望。

强烈反对 反对 既不同意也不反对 同意 非常同意

9. 有时候，您会觉得购买乐购自有品牌的商品是浪费钱。

强烈反对 反对 既不同意也不反对 同意 非常同意

10. 您有时会觉得乐购自有品牌的商品并不值您所花的那些钱。

强烈反对 反对 既不同意也不反对 同意 非常同意

11. 您有时会担心把钱花在购买乐购自有品牌上是不明智的。

强烈反对 反对 既不同意也不反对 同意 非常同意

12. 您有时会担心，如果您购买乐购自有品牌的商品会被别人看不起。

强烈反对 反对 既不同意也不反对 同意 非常同意

13. 您有时会担心，如果其他人知道您购买乐购自有品牌的商品会对您产生负面评价（比如会认为您比较穷，或者小气等）。

强烈反对 反对 既不同意也不反对 同意 非常同意

14. 您有时会担心，购买乐购自有品牌的商品不符合您的身份。

强烈反对 反对 既不同意也不反对 同意 非常同意

15. 您有时会担心，购买乐购自有品牌会让您觉得后悔。

强烈反对 反对 既不同意也不反对 同意 非常同意

16. 您有时会担心购买乐购自有品牌浪费时间，因为您可能会因为对其不满意而不得不寻找其它品牌来代替它。

强烈反对 反对 既不同意也不反对 同意 非常同意

17. 您有时会担心购买乐购自有品牌的商品会浪费时间时间在投诉和退款上面。

强烈反对 反对 既不同意也不反对 同意 非常同意

问卷第二部分 - 关于消费者自己

请问您在多大程度上同意或者不同意以下观点？

18. 人们应该做到舍小家，保大家。

强烈反对 反对 既不同意也不反对 同意 非常同意

19. 即使在困难的时候，个人也应该忠于集体。

强烈反对 反对 既不同意也不反对 同意 非常同意

20. 集体利益大于个人利益。

强烈反对 反对 既不同意也不反对 同意 非常同意

21. 集体成就大于个人成就。

强烈反对 反对 既不同意也不反对 同意 非常同意

22. 应该首先考虑集体的利益，然后才能追求个人的目标。

强烈反对 反对 既不同意也不反对 同意 非常同意

23. 即使在个人目标很难实现的情况下，也要应该鼓励个人忠于集体。

强烈反对 反对 既不同意也不反对 同意 非常同意

24. 相比与女性来说，男性更需要一份正式的工作。

强烈反对 反对 既不同意也不反对 同意 非常同意

25. 解决问题的时候，男性擅长逻辑分析，而女性则靠直觉。

强烈反对 反对 既不同意也不反对 同意 非常同意

26. 男性善于解决难题，因为他们积极主动，而且态度强硬。

强烈反对 反对 既不同意也不反对 同意 非常同意

27. 在某些工作上, 男性总是做的比女性要好.

强烈反对 反对 既不同意也不反对 同意 非常同意

28. 在办事的时候, 一定要按照说明和指示一步一步来.

强烈反对 反对 既不同意也不反对 同意 非常同意

29. 规章制度对我来说很重要, 因为它们告诉我怎么做才是正确的.

强烈反对 反对 既不同意也不反对 同意 非常同意

30. 没有规矩, 不成方圆.

强烈反对 反对 既不同意也不反对 同意 非常同意

31. 有个明确的说明, 对做好一件事情至关重要.

强烈反对 反对 既不同意也不反对 同意 非常同意

32. 上级在做决策的时候不应该参考下级的意见.

强烈反对 反对 既不同意也不反对 同意 非常同意

33. 上级不应该经常询问下级的意见.

强烈反对 反对 既不同意也不反对 同意 非常同意

34. 上级应该在社交中避免与下级接触.

强烈反对 反对 既不同意也不反对 同意 非常同意

35. 上级不应该把重要的任务托付给下级.

强烈反对 反对 既不同意也不反对 同意 非常同意

36. 下级不应该对上级的决策提出疑义.

强烈反对 反对 既不同意也不反对 同意 非常同意

37. 节约是一种美德.

强烈反对 反对 既不同意也不反对 同意 非常同意

38. 人需要一个稳定的生活.

强烈反对 反对 既不同意也不反对 同意 非常同意

39. 人需要对生活有个长远的打算.

强烈反对 反对 既不同意也不反对 同意 非常同意

40. 人不应该只图一时快乐而影响到未来的成功.

强烈反对 反对 既不同意也不反对 同意 非常同意

41. 人需要为了明天的成功而努力工作.

强烈反对 反对 既不同意也不反对 同意 非常同意

问卷第三部分 – 关于家庭结构

42. 以下哪一项可以恰当的形容您的家庭现状?

- 年轻成年人 – 家庭成员在 20-39 岁之间，家中没有子女。
- 年轻家庭 – 所有子女都小于 10 岁。
- 中年家庭 – 有一个或多个子女大于 10 岁。
- 中年人 – 家庭成员在 40-59 岁之间，没有子女长期在家居住。
- 退休人员 – 家庭成员都超过 60 岁，子女都已离家独立生活。
- 其他家庭组合（如三代同堂，夫妻婚后与父母同住，祖孙同住等）

43. 请选择您的性别:

- 男
- 女

44. 请选择您的教育程度:

- 初中及初中以下
- 高中
- 大学专科
- 大学本科
- 硕士及硕士以上

45. 请选择您的家庭年收入水平:

- 20 万元以上
- 15 万元 – 20 万元
- 10 万元 – 15 万元
- 5 万元 – 10 万元
- 1 万 – 5 万元
- 1 万元以下

问卷结束，非常感谢您的合作

Appendix D. Communalities

	Initial	Extraction (CN)	Extraction (UK)
Familiarity 1	1.000	.671	.743
Familiarity 2	1.000	.725	.769
Collectivism 1	1.000	.521	.607
Collectivism 2	1.000	.667	.709
Collectivism 3	1.000	.652	.666
Collectivism 4	1.000	.646	.678
Collectivism 5	1.000	.640	.570
Collectivism 6	1.000	.504	.631
Masculinity 1	1.000	.581	.606
Masculinity 2	1.000	.683	.637
Masculinity 3	1.000	.688	.671
Masculinity 4	1.000	.585	.636
Uncertainty Avoidance 1	1.000	.619	.699
Uncertainty Avoidance 2	1.000	.717	.747
Uncertainty Avoidance 3	1.000	.592	.607
Uncertainty Avoidance 4	1.000	.479	.614
Power Distance 1	1.000	.608	.726
Power Distance 2	1.000	.588	.720
Power Distance 3	1.000	.668	.762
Power Distance 4	1.000	.571	.741
Power Distance 5	1.000	.496	.640
Long-Term Orientation 1	1.000	.443	.674
Long-Term Orientation 2	1.000	.549	.631
Long-Term Orientation 3	1.000	.723	.664
Long-Term Orientation 4	1.000	.686	.582
Long-Term Orientation 5	1.000	.666	.524
Perceived Quality Difference 1	1.000	.254	.507
Perceived Quality Difference 2	1.000	.424	.695
Perceived Quality Difference 3	1.000	.499	.676
Perceived Functional Risk 1	1.000	.631	.619
Perceived Functional Risk 2	1.000	.649	.647
Perceived Financial Risk 1	1.000	.777	.642

Perceived Financial Risk 2	1.000	.782	.691
Perceived Financial Risk 3	1.000	.717	.623
Perceived Social Risk 1	1.000	.718	.751
Perceived Social Risk 2	1.000	.804	.749
Perceived Psychological Risk 1	1.000	.754	.699
Perceived Psychological Risk 2	1.000	.596	.630
Perceived Time Risk 1	1.000	.811	.678
Perceived Time Risk 2	1.000	.734	.648
The Propensity of Tesco Value	1.000	.667	.472
The Propensity of Tesco Regular	1.000	.666	.548

Extraction Method: Principal Component Analysis.

Appendix E. Rotated Component Matrix – UK

	Component									
	1	2	3	4	5	6	7	8	9	10
Familiarity 1	-.325	.000	-.042	-.002	-.100	.777	-.124	.059	.050	.027
Familiarity 2	-.351	.013	-.047	-.022	-.064	.789	-.086	.080	.054	-.002
Collectivism 1	-.069	.022	.744	-.014	.041	.003	.123	-.142	-.076	.073
Collectivism 2	-.118	-.026	.798	.072	-.039	-.009	.145	-.011	.109	.135
Collectivism 3	-.013	-.035	.778	.059	.003	-.025	-.214	-.019	-.072	.055
Collectivism 4	.042	-.004	.800	.105	-.002	-.004	-.070	.038	-.136	-.014
Collectivism 5	.017	-.021	.738	-.042	.124	.053	-.038	-.058	-.006	-.024
Collectivism 6	-.012	.044	.723	.036	.106	.067	-.002	.156	.150	-.208
Masculinity 1	.042	.156	.035	-.136	.737	-.041	.058	.067	.070	.053
Masculinity 2	.029	.138	.122	-.014	.747	.070	.086	.153	.047	-.080
Masculinity 3	.024	.193	.008	.115	.768	-.072	.100	.088	.047	-.068
Masculinity 4	.143	-.005	.064	.042	.731	-.026	-.079	-.206	-.105	.121
Uncertainty Avoidance 1	-.175	-.014	-.008	.795	-.011	-.056	-.097	-.150	.009	.028
Uncertainty Avoidance 2	-.175	-.071	.041	.837	-.041	.013	-.011	-.078	.020	-.038
Uncertainty Avoidance 3	-.113	-.103	.074	.735	.088	.027	.010	-.098	-.067	-.120

Uncertainty Avoidance 4	-.106	-.035	.076	.742	-.037	.043	-.076	-.038	-.186	.007
Power Distance 1	.057	.826	-.046	-.009	.081	-.032	.003	.153	.085	-.026
Power Distance 2	.111	.830	-.005	-.032	.076	-.032	.019	.077	-.042	.052
Power Distance 3	.101	.841	.008	-.128	.104	-.026	.054	.084	.059	-.060
Power Distance 4	.100	.834	.019	-.045	.099	-.074	.117	.052	-.023	.037
Power Distance 5	-.001	.771	.000	-.032	.128	.064	.106	-.075	.084	.020
Long-Term Orientation 1	.085	.271	-.052	-.060	.058	.083	-.013	.636	-.059	.411
Long-Term Orientation 2	-.018	.044	-.044	-.028	.061	.025	.094	-.004	.157	.767
Long-Term Orientation 3	.007	.115	-.038	-.105	.044	.075	.081	.777	.125	-.064
Long-Term Orientation 4	.019	-.081	.158	-.114	-.077	-.045	.092	.305	-.246	.605
Long-Term Orientation 5	.100	.011	-.003	-.191	.041	-.062	.079	.676	-.038	.080
Perceived Quality Difference 1	.585	-.109	-.010	-.085	.038	-.314	-.038	-.068	.160	.116
Perceived Quality Difference 2	.348	.073	-.045	-.127	-.022	-.084	.053	-.021	.731	.064
Perceived Quality Difference 3	.338	.087	.004	-.146	.112	-.135	.122	.089	.691	-.043
Perceived Funcational Risk 1	.749	.110	-.035	-.095	-.005	-.026	.080	-.035	.168	.002
Perceived Functional Risk 2	.755	-.001	.010	-.050	-.057	-.144	.029	.020	.168	.145
Perceived Financial Risk 1	.724	.088	-.019	-.153	.079	-.239	.091	.064	.077	-.064
Perceived Financial Risk 2	.718	.136	-.057	-.171	.092	-.173	.192	.116	.176	-.069
Perceived Financial Risk 3	.711	.071	-.042	-.182	.065	-.144	.155	.096	.135	-.031

Perceived Social Risk 1	.319	.074	-.045	-.073	.069	-.081	.785	.067	.014	.061
Perceived Social Risk 2	.313	.167	.009	-.047	.033	.002	.775	.107	.058	.065
Perceived Psychological Risk 1	.427	.091	-.031	-.082	.099	-.056	.682	.038	.115	.090
Perceived Psychological Risk 2	.628	.063	.003	-.055	.053	-.161	.443	.025	.020	.054
Perceived Time Risk 1	.759	.008	.007	-.032	.038	-.148	.214	-.020	-.174	.018
Perceived Time Risk 2	.717	.157	-.053	-.067	.086	-.050	.237	.111	.028	-.150
The Propensity of Tesco Value	-.281	-.113	.096	.018	.117	.541	.014	.010	-.217	-.131
The Propensity of Tesco Regular	-.123	-.025	.071	.021	-.003	.712	.014	-.061	-.105	.068

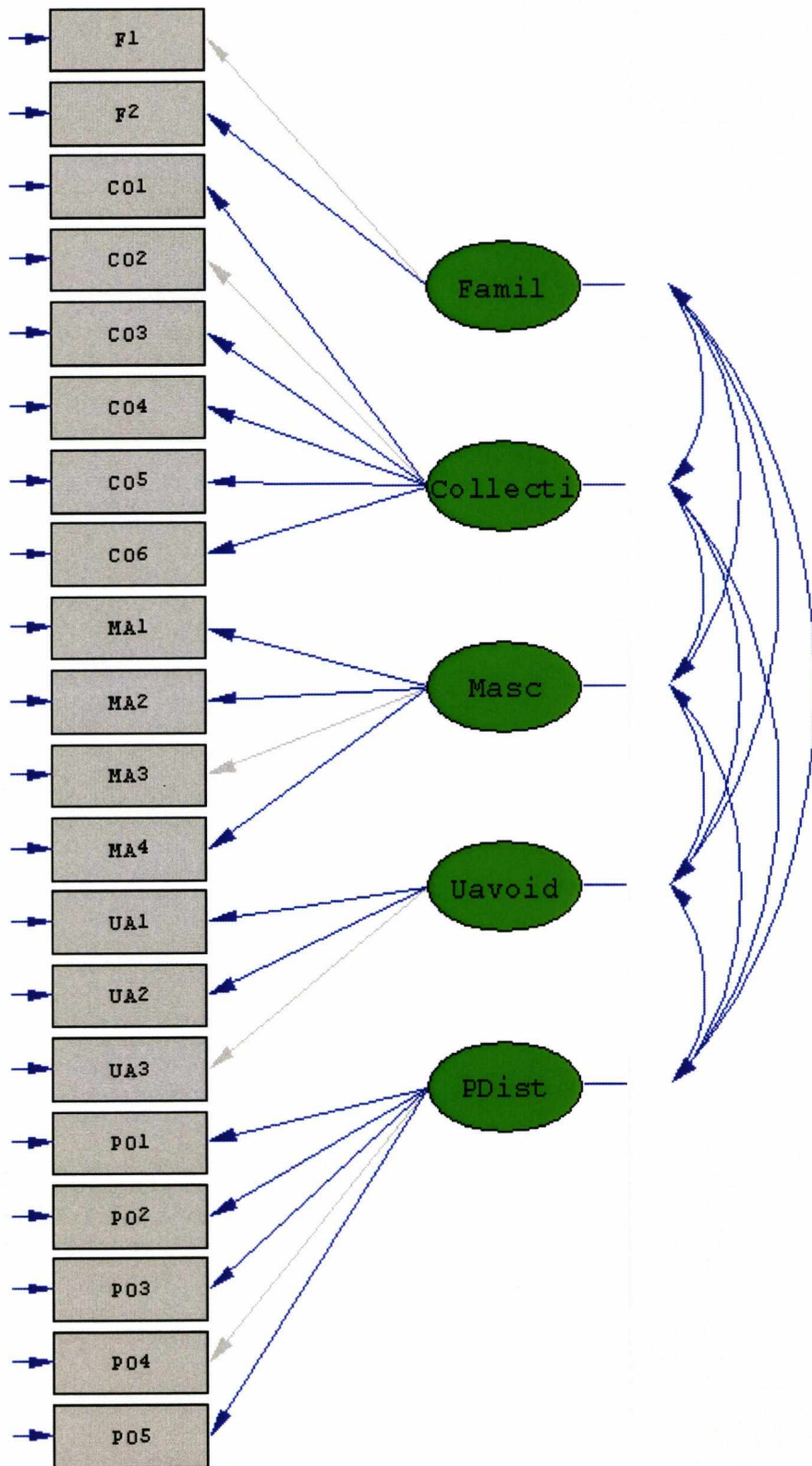
Appendix F. Rotated Component Matrix – China

	Component									
	1	2	3	4	5	6	7	8	9	10
Familiarity 1	.108	.052	.082	.770	-.190	-.006	.056	.007	.044	-.122
Familiarity 2	.065	.002	.084	.826	-.159	.059	.021	.013	.005	-.049
Collectivism 1	.705	.003	.021	.119	-.014	.025	-.032	.032	.073	.034
Collectivism 2	.786	.048	.004	.140	.089	.037	-.067	.038	-.108	.003
Collectivism 3	.790	.055	-.079	-.059	-.049	.043	-.010	.095	-.030	-.028
Collectivism 4	.782	.062	-.069	-.041	-.083	.077	-.047	.093	-.003	-.021
Collectivism 5	.784	.043	.003	.034	-.098	.026	.045	.091	-.034	-.031
Collectivism 6	.676	.067	.109	.107	-.064	.069	-.080	.020	-.004	-.055
Masculinity 1	.099	.138	.045	.092	.042	.727	.017	.099	-.028	.005
Masculinity 2	.089	.010	.024	.041	.024	.805	-.084	.040	-.025	.119
Masculinity 3	.106	-.042	.079	.034	-.092	.796	.092	.114	.042	-.050
Masculinity 4	-.025	-.015	.038	-.079	-.006	.756	.052	.032	-.024	-.014
Uncertainty Avoidance 1	.129	.014	-.005	.122	-.077	.076	.018	.748	.060	-.108
Uncertainty Avoidance 2	.134	.106	.060	.091	-.077	.031	.021	.815	-.061	-.029
Uncertainty Avoidance 3	.086	.250	-.024	.031	.026	.165	-.017	.701	-.035	.011

Uncertainty Avoidance 4	.002	.270	-.042	-.057	-.035	.046	-.059	.618	.022	.111
Power Distance 1	-.029	-.133	.745	.004	.048	.023	.128	.074	.091	-.035
Power Distance 2	.009	-.111	.747	-.009	.016	.012	.091	-.088	-.028	-.023
Power Distance 3	.012	-.121	.790	.004	.035	.065	.142	-.023	-.045	-.042
Power Distance 4	.000	-.099	.740	.008	.000	.066	.035	.048	.050	.063
Power Distance 5	.012	.037	.635	.071	-.128	.031	.013	-.009	.088	.247
Long-Term Orientation 1	.104	.544	-.239	-.023	.032	.119	-.134	.190	-.093	.012
Long-Term Orientation 2	.080	.703	.031	.041	.061	.021	-.070	.158	-.072	-.084
Long-Term Orientation 3	.101	.824	-.130	-.007	.031	-.008	.026	.076	-.019	-.096
Long-Term Orientation 4	-.006	.813	-.091	.015	.000	.023	-.014	.094	.074	-.023
Long-Term Orientation 5	.022	.781	-.111	.067	-.093	-.034	-.059	.107	-.012	.119
Perceived Quality Difference 1	.106	.066	.076	.278	-.246	-.017	-.100	.205	-.187	-.092
Perceived Quality Difference 2	.034	-.046	-.071	.061	-.586	.058	-.103	.019	-.187	-.138
Perceived Quality Difference 3	.014	-.031	-.054	.140	-.652	.072	-.114	-.020	-.116	-.132
Perceived Functional Risk 1	-.063	.029	-.059	-.109	.770	.074	.056	-.057	.069	.025
Perceived Functional Risk 2	-.081	-.066	-.080	-.112	.750	.022	-.015	-.100	.149	.155
Perceived Financial Risk 1	-.015	.012	.100	-.095	.152	-.006	.199	-.037	.828	.090
Perceived Financial Risk 2	-.084	-.092	.048	-.021	.205	-.030	.150	.026	.814	.185
Perceived Financial Risk 3	.031	-.014	.020	-.087	.297	-.020	.154	.004	.743	.207
Perceived Social Risk 1	-.010	-.040	.108	-.044	.151	.038	.787	.000	.236	.063

Perceived Social Risk 2	-.055	-.126	.174	-.043	.078	-.003	.849	-.029	.128	.097
Perceived Psychological Risk 1	-.123	-.055	.179	-.013	.072	.054	.796	-.010	.116	.220
Perceived Psychological Risk 2	-.152	-.083	.021	-.150	.301	.061	.331	-.061	.222	.535
Perceived Time Risk 1	-.013	.018	.058	-.134	.296	.028	.163	.028	.143	.808
Perceived Time Risk 2	-.005	-.056	.114	-.132	.165	.014	.121	-.030	.245	.773
The Propensity of Tesco Value	.016	.010	-.065	.795	-.117	.036	-.098	.050	-.055	-.030
The Propensity of Tesco Regular	.081	.013	-.040	.786	.027	-.004	-.059	.088	-.151	-.070

Appendix G. Measurement Model A



Appendix H. Measurement Model B

